

Strategic Cooperation in the Indo-Pacific: US and Indian Perspectives





The Hoover Institution gratefully acknowledges the following individuals and foundations for their significant support of the HUNTINGTON PROGRAM ON STRENGTHENING US-INDIA RELATIONS and this publication:

Claudia P. Huntington

John A. Gunn and Cynthia F. Gunn

Walmart Inc.

The Harold W. McGraw, III Foundation, Inc.

CONTENTS

Introduction **1**

S. Paul Kapur and Harsh V. Pant

1.

US-India Security Cooperation in the Indo-Pacific: Locating Key Issues **3**

Harsh V. Pant and Vivek Mishra

2.

US-India Security Relations in the Indo-Pacific **9**

Sumit Ganguly and S. Paul Kapur

3.

Governance in the Indo-Pacific: The Maritime Domain **15**

Abhijit Singh and Premesha Saha

4.

Governance in the Indo-Pacific Region: Opportunities for US-India Cooperation **21**

Dinsha Mistree

5.

The Challenge of Trade: Tackling the Achilles' Heel in the US-India Partnership **27**

Mohan Kumar

6.

US-India Economic Cooperation **33**

David Mulford and John Rivera-Dirks

7.

US-India Energy Partnership: Finding Common Ground **37**

Lydia Powell

8.	US-India Energy Cooperation: Keeping Gas on the Agenda	41
	<i>David Fedor</i>	
9.	US-India Technology Sharing	49
	<i>Rajeswari Rajagopalan and Trisha Ray</i>	
10.	US-India Defense Technology Cooperation: Vital, Not Inevitable	55
	<i>Joe Felter and Vikram J. Singh</i>	
	About the Authors	63



Introduction

S. Paul Kapur and Harsh V. Pant

The United States–India strategic partnership has a natural, seemingly inevitable quality about it. The need to ensure a free and open Indo-Pacific region, balance rising Chinese power, and enhance prosperity through trade and other economic cooperation creates incentives that are very strong. Indeed, it was the power of these incentives that overcame decades of acrimony and mistrust that had characterized the US-India relationship during the Cold War, gave rise to a genuine partnership between the two countries, and then propelled that partnership forward, against the backward pull of history. Today, the US-India bilateral partnership is also embedded in wider plurilateral frameworks, from the Quadrilateral Security Dialogue (United States, India, Australia, and Japan) in the Pacific to the I2U2 (India, Israel, the United Arab Emirates, and the United States) in the Middle East.

Despite these powerful incentives and structures, however, the success of the US-India partnership is not inevitable; the effective formulation and execution of cooperative policies require careful management. Inadequate management leaves either country with unmet expectations of the other, leading to disagreements and acrimony, as in US-India discord over the war in Ukraine; to diplomatic vacuums impeding forward progress, as in the long absence of a US ambassador in India; and to unmet economic promise, as in the lack of a US-India free-trade agreement and battles between the two countries in the World Trade Organization.

Thus, while recognizing that US-India cooperation is to some degree a natural phenomenon, we must develop ideas and approaches to optimize and operationalize it. Otherwise, the relationship may stall, and it may even slide backward. Given the high stakes in US-India partnership, that is an outcome that we must avoid.

This project addresses five subjects central to US and Indian interests—governance, trade, security, technology, and energy—in the region of common concern, the Indo-Pacific. The brief papers review the history of US-India cooperation in these areas, explain where that cooperation stands now, outline joint challenges and opportunities, and make concrete suggestions for the future. These suggestions can help the United States and India to manage their cooperative efforts and ensure that they give rise to effective policies. They include the following:

- Emphasizing Indian military capacity building, particularly in the maritime domain, which will be a primary locus of Indo-Pacific competition—traditionally not a focus of Indian strategic attention, where relatively modest improvements can have outsized effects.
- Working together to develop multilateral governance structures and connect like-minded countries in the Indo-Pacific region, with India acting as a regional leader.
- Giving natural gas a more central and longer-lived role than either country currently envisions in the energy transformations of both India and the United States.
- Prioritizing bilateral economic engagement, ultimately reaching a trade agreement that reduces trade barriers and improves business environments in both countries.
- Putting the “major” in the US-India Major Defense Partnership by sharing with India advanced defense technologies at the level of US treaty allies.

We undertake this effort at a particularly urgent moment. The China challenge is growing rapidly, in the face of significant Chinese military improvements and increasingly authoritarian behavior. And US-India relations suffer from disagreements over India’s relationship with Russia and the war in Ukraine, years without a US ambassador in Delhi, and improving ties between the United States and Pakistan.

The Hoover Institution and the Observer Research Foundation (ORF) are ideal partners in a project such as this. Although they have not worked together before, both organizations recognize the importance of good ideas to sound public policy and are committed to promoting close US-India cooperation to advance common interests. We hope that this inaugural effort will influence public debate and discussion, help give rise to more effective US-India cooperation, and pave the way for further Hoover-ORF collaboration in the future.



US-India Security Cooperation in the Indo-Pacific

Locating Key Issues

Harsh V. Pant and Vivek Mishra

The Indo-Pacific has emerged as a metageography sitting at the heart of the ongoing churn in global geopolitics. The economic and security interests of both India and the United States converge in the Indo-Pacific, perhaps as in no other region. The vision of a free, open, and inclusive Indo-Pacific has forged a common regional purpose between the two countries, which is directly or indirectly rooted in security. For both countries, their regional concerns, including open sea lines of communication, piracy, trafficking of all kinds, free and fair trade and investment, and above all a favorable balance of power, are all undergirded by elements of security. In ensuring that the Indo-Pacific region remains free and open, but most importantly in providing “autonomy and options” to regional countries, the US and India are strong partners.¹

CHALLENGES

The emerging political architecture of the Indo-Pacific is primarily driven by competition between the region’s major powers. While competition between the United States and China is at the core of this dynamic, it is equally shaped by China’s engagement with other countries—small and big—in the Indo-Pacific. As a result, major powers are scrambling to ensure early advantages in areas of critical strategic importance, including strengthening relations with other countries in the region. For both India and the US, China remains the foremost concern in this regard in the Indo-Pacific, with its increasing ability to influence countries through investments and financial obligations.

The Biden administration’s National Security Strategy (NSS) underscores maintaining “collective capacity” and a “strong and consistent defense presence” as strategies necessary to ensure regional security.² Although the US has a number of treaty allies in the

Pacific theater, it considers India, as the world's largest democracy and a recognized "Major Defense Partner," with a vast peninsula in the Indian Ocean, as essential to achieving its strategic objectives and ensuring a favorable balance of power in the region. As such, India's political and economic stability, its status as a credible yet responsible nuclear power, and its concerns regarding China have all contributed to the strengthening of joint India-US resolve in the Indo-Pacific region.

One of the cornerstones of US policy in the Indo-Pacific region is integrated deterrence. As outlined in the Biden administration's Indo-Pacific policy, integrated deterrence consists of three components: an intraforce component addressing collaborative activities between the various branches of the US armed forces; an intra-agency approach facilitating efforts between various departments of the US government; and an approach focused on working with partners and allies across various warfighting domains and spectrums of conflict. As India and the US today conduct the largest number of military exercises between any two countries, the relationship could benefit from leveraging integrated deterrence, particularly by promoting jointness between the armed forces of the two countries.³ Integrated deterrence is also critical to reinforcing collective security in the Indo-Pacific, defending against coercive attempts to create new geographies, redraw territorial boundaries, and challenge states' sovereign rights at sea.

The US Indo-Pacific strategy falls short on institutional mechanisms to address regional challenges in a comprehensive manner. This impediment is compounded by the vastness and diversity of a region that transcends traditional geographies. The emerging multilateralism in the Indo-Pacific, whereby the European countries are increasingly drawn to the region, also creates opportunities for both the US and India to share burdens with a growing number of stakeholders.

POSSIBILITIES FOR COOPERATION

The western Indian Ocean could emerge as a new area of opportunity for both the US and India in the Indo-Pacific. This subgeography has largely remained outside India's traditional maritime vision. However, the Indo-Pacific concept places the western Indian Ocean at the heart of strategic concerns for both India and the United States.

From its doctrinaire definition of the Indo-Pacific as a region extending from "Hollywood to Bollywood," the US has come to now see the entire Indian Ocean as part of the Indo-Pacific.⁴ This squares the US with India's expansive view of the region. In light of some of the bilateral and multilateral developments in the region, the western Indian Ocean could play a pivotal role in US-India cooperation. There are at least four ways in which this subregion could emerge as a theater of opportunity, buttressing joint US-India strategic efforts.

First, a full-spectrum operationalization of the foundational strategic agreements between the US and India could lead to enhanced jointness and coordination, mutual training, better

maritime domain awareness, and sharing of information in the entire Indo-Pacific, including its western reaches.⁵ Second, as European states increasingly establish a regional vision and presence, a strategic continuum of like-minded actors will emerge from west to east, in the form of Djibouti–Réunion Island–Diego Garcia for coalending security. They can work together with the US and India to offset regional threats. Third, India’s recent decision to join the Combined Maritime Forces (CMF), which was announced during the Fourth Annual US-India 2+2 Ministerial Dialogue, in April 2022, expands the India-US security partnership, particularly in the western Indian Ocean.⁶ The CMF will also integrate India-US joint efforts through close coordination via the CMF headquarters in Bahrain together with the global partnership in the region to uphold the rules-based order in the Indo-Pacific.

Bilaterally, India-US strategic cooperation in the Indo-Pacific is guided by established institutional mechanisms such as the 2+2 framework and the Major Defense Partner status of India. At the policy level, the Quad—consisting of Australia, India, Japan, and the United States—stands out as one of the most potentially robust institutional mechanisms in the Indo-Pacific. Its strategic importance for the Indo-Pacific makes it a source of constant consternation for Beijing. The inclusion of Australia in the Malabar naval exercise starting in 2020 elevated the Malabar exercise to the same four-country level as the Quad.⁷ Beyond regional security, the Quad’s working groups on vaccines, climate change, infrastructure, space, cyber security, and critical and emerging technologies have further cemented partnerships among the four member countries. To enhance their impact on regional security, Quad members could increase joint patrols on either side of the Strait of Malacca. Involving European partners keen to advance their own Indo-Pacific interests can further bolster the region’s free, open, and inclusive credentials.

Yet, because of underlying core differences in both countries’ outlooks and interests, they sometimes view the Indo-Pacific differently as a strategic space. While the US looks at the Indo-Pacific primarily from a doctrinal and strategic lens, India’s view of the region lies dispersed between a vision, an outlook, and a strategy. Although these nuances have not prevented India-US cooperation, the two countries should develop more institutional mechanisms to guard against possible problems in the future.

The dawn of a reformed multilateral order in which India is negotiating its own distinct place has necessitated larger regional responsibilities in the Indo-Pacific region, and working with like-minded countries like the US is a critical component of that pursuit. In the past decade, India has complemented its partnership with the US in the Indo-Pacific region with a home-grown outlook that seeks to integrate regional growth with national security objectives. The premier framework outlining this vision for India has been the concept of Security and Growth for All in the Region (SAGAR).⁸

Nontraditional aspects of security are no longer secondary concerns for the US and India in the Indo-Pacific. Risks of climate-induced changes, food shortages, communicable diseases, terrorism, energy shortages, and inflation all have the potential to rapidly transform

short-term and reshape long-term objectives in the Indo-Pacific. The 2004 post-tsunami cooperation between the Quad countries remains a strong template for collaboration during regional disasters. Furthermore, India's participation in the CMF could be a good start for coordination between India and the US on issues such as piracy, trafficking, and freedom of navigation.

Finally, the evolution of technology brings new opportunities for the US and India in the Indo-Pacific. Technology cooperation assumes significance in a rapidly changing threat domain where technological evolution is directly linked to evolving threats in the cyber realm, in space, and with respect to critical and emerging technologies. Particularly, the India-US Initiative on Critical and Emerging Technologies (iCET), launched in May 2022, is intended as an outcome-oriented step in bilateral cooperation. This initiative is being jointly led by the National Security Council Secretariat in India and the US National Security Council and has been provided momentum by the inaugural meeting between the national security advisors from the two sides on January 31, 2023.⁹ The initiative is expected to significantly advance US-India bilateral cooperation. In the realm of critical and emerging technologies, iCET envisions creating an "innovation bridge" with India by connecting six of India's Technology Innovation Hubs. This connection is meant to help at least twenty-five joint research projects in fields like AI and data science and apply their results to areas such as agriculture, health, and climate.¹⁰

The US-India Defense Technology and Trade Initiative (DTTI) is a framework that can leverage private industry partnerships to affect regional security. For instance, codeveloping air-launched UAVs, counter-unmanned aerial systems (UAS), and intelligence, surveillance, target acquisition, and reconnaissance (ISTAR) platforms could all be game changers for joint US-India cooperation in the waters of the Indo-Pacific in the future. In the past, DTTI was hampered by a mix of factors ranging from bureaucratic sluggishness to export-control mandates and demand-supply mismatch between the two sides. There is, however, a new momentum in DTTI projects since 2021, based on a revised Statement of Intent focused on "[strengthening] our dialogue on defence technology cooperation by pursuing detailed planning and making measurable progress" on several specific DTTI efforts.¹¹

In this regard, iCET is important as it seeks to bypass bureaucratic hurdles and red tape that frequently impede technological collaboration between the US and India. To accomplish this goal, iCET has introduced a new bilateral defense industrial cooperation agenda aimed at providing a boost to defense technology cooperation with a focus on joint development and production. One of the initial projects under this vision is collaboration on jet engines. Notably, in this regard, the US is evaluating a proposal from General Electric (GE) to jointly produce jet engines for indigenous fighter aircraft in India. This includes the GE-414 engines, which have been designated by India to power its indigenous Light Combat Aircraft (LCA)-Mk2 and the fifth-generation Advanced Medium Combat Aircraft (AMCA). As such, the iCET is expected to buttress DTTI.¹² This type of mutually reinforcing technology cooperation could be just what is needed to help push India-US defense cooperation to the next level.

NOTES

1. National Security Council, "Indo-Pacific Strategy of the United States," February 2022, <https://www.whitehouse.gov/wp-content/uploads/2022/02/U.S.-Indo-Pacific-Strategy.pdf>.
2. National Security Council, "Indo-Pacific Strategy."
3. Ministry of External Affairs, Government of India, "Brief on US-India Relations," June 2017, https://www.mea.gov.in/Portal/ForeignRelation/India_US_brief.pdf.
4. National Security Council, "Indo-Pacific Strategy"; also see Andrew Phillips, "From Hollywood to Bollywood? Australia's Indo/Pacific Future in a Contested Asia," *The Strategist*, October 12, 2016, <https://www.aspistrategist.org.au/hollywood-bollywood-australias-indopacific-future-contested-asia>.
5. The four foundational agreements are General Security of Military Information Agreement (GSOMIA); Logistics Exchange Memorandum of Agreement (LEMOA); Communications and Information Security Memorandum of Agreement (CISMOA), and the Basic Exchange and Cooperation Agreement for Geospatial Intelligence (BECA).
6. The CMF consists of four Combined Task Forces (CTFs), which have their primary activities willy-nilly tethered to the western Indian Ocean: CTF 150 (Maritime Security Operations outside the Arabian Gulf); CTF 151 (Counter-Piracy); CTF 152 (Maritime Security Operations inside the Arabian Gulf), and CTF 153 (Red Sea Maritime Security).
7. Ankit Panda, "Australia Returns to the Malabar Exercise," *The Diplomat*, October 19, 2020, <https://thediplomat.com/2020/10/australia-returns-to-the-malabar-exercise>.
8. President's Secretariat, "India Believes in 'Security and Growth for All in the Region' to Focus on Cooperative Measures for Sustainable Use of Oceans: President Kovind," February 21, 2002, press release, <https://pib.gov.in/PressReleasePage.aspx?PRID=1800028>.
9. The White House, "Fact Sheet: United States and India Elevate Strategic Partnership with the Initiative on Critical and Emerging Technology (iCET)," January 31, 2023, <https://www.whitehouse.gov/briefing-room/statements-releases/2023/01/31/fact-sheet-united-states-and-india-elevate-strategic-partnership-with-the-initiative-on-critical-and-emerging-technology-icet>.
10. Vivek Mishra, "iCET: Upscaling India-US Partnership for a Tech-Centric Future," ORF, February 9, 2023, <https://www.orfonline.org/expert-speak/icet-upscaling-india-us-partnership-for-a-tech-centric-future>.
11. Ministry of Defence, "India and US Hold 11th Defence Technology & Trade Initiative Group Meeting Virtually," November 10, 2021, press release, <https://pib.gov.in/PressReleasePage.aspx?PRID=1770443>.
12. Mishra, "iCET: Upscaling India-US Partnership."



US-India Security Relations in the Indo-Pacific

Sumit Ganguly and S. Paul Kapur

The United States and India share a wide range of important interests, including a \$150 billion trade relationship, close people-to-people ties, and an overlapping set of challenges from the People's Republic of China.¹ Nonetheless, their strategic partnership, in the first instance, rests on security concerns. Both India and the United States desire a “free and open” Indo-Pacific region, governed by liberal principles including open commons, deliberative dispute resolution, market economies, and the rule of law. This shared vision is threatened, however, by rising Chinese power.

Following China's economic reforms in the 1980s, scholars, analysts, and world leaders believed that integration into the world economy would liberalize its preferences, making China a cooperative stakeholder in the international community. This belief proved to be false. The more integrated China became, the less liberal and more threatening China grew. Backed by a burgeoning economy and increasingly sophisticated military capabilities, China adopted predatory economic development schemes, employed coercive dispute resolution, rejected international law, undertook territorial reclamations, and subverted international institutions to promote its interests.² This behavior, if unchecked, threatened to yield a Sino-centric, authoritarian Indo-Pacific region rather than one that was free and open.

Both the United States and India had an overriding interest in avoiding such an outcome. Significantly, this did not require them to exclude China from the region. Their goal was more modest: to prevent China from exerting hegemony over it. Still, neither country had the ability to achieve its ends alone. India was significantly outmatched by China, with a smaller economy and military, and grappled with major developmental challenges.³ And the US, despite its enormous strategic capacity, had global equities and finite resources; it lacked the ability to keep the Indo-Pacific free and open alone, or even in concert solely with its treaty allies. Thus, to face the China challenge, India and the United States needed to work together.⁴

During the Cold War, US-India relations had been characterized by rancor and mistrust, with India viewing the United States as a neocolonial power and the US viewing India as a

de facto ally of the Soviet Union. With the Cold War's end and the urgent need to balance rising Chinese power, however, the two countries overcame their mutual suspicions and began to forge a strategic partnership.

The 2008 US-India Civil Nuclear Agreement removed one of the biggest barriers to US-India cooperation, affording India access to civilian nuclear materials and technology, despite its having refused to sign the Nuclear Non-Proliferation Treaty. This gave de facto US approval for India's nuclear weapons capability and helped to undo decades of Indian resentment over US nonproliferation efforts. With the nuclear problem mitigated, and the Chinese threat growing, the two sides could cooperate in ways that previously would have been impossible.⁵

The US-India security partnership has focused largely on building Indian military capacity by providing it with high-quality equipment, so that India can resist Chinese coercion; a strong and genuinely independent India will necessarily impede Chinese efforts to exert hegemony over the Indo-Pacific region.

This has resulted in the two countries' defense trade skyrocketing from zero in 2005 to well over \$20 billion today. Increasing US openness to sharing technology, as evidenced by the US designation of India as a Major Defense Partner, and affording India Tier 1 Strategic Trade Authorization, has facilitated these efforts.⁶ Other measures include expanded joint military training, the signing of so-called foundational agreements pertaining to logistics and geospatial information sharing, and intelligence cooperation. The latter proved especially helpful to India during the Galwan Valley border crisis during 2020–21.⁷

Although this progress has been impressive, the United States and India must continue to push their relationship forward; achieving further progress remains an urgent priority. This is the case for two reasons. First, China has undertaken an enormous conventional and nuclear military buildup, increasing the danger to the United States, India, and other like-minded countries. Meanwhile, United States deterrent capabilities have been eroding. As senior US military officials have pointed out, these changes could encourage aggressive Chinese behavior in the near future.⁸

Second, the US-India relationship has hit a rough patch. India maintains close ties to Russia and has refused to condemn Russian aggression in Ukraine, despite strong US pressure to do so. This has led to public spats and resentment between US and Indian officials. Meanwhile, the Biden administration took more than two years to appoint an ambassador to India. Finally, the United States appears to be renewing strategic cooperation with Pakistan, which will stir mistrust in New Delhi and advance Chinese interests.⁹

We suggest five measures to help overcome these emergent problems and build momentum in the US-India relationship:

First, continue to focus on military capacity building. Both the United States and India agree on the importance of this project, and it has a track record of success over the past

two decades. Future efforts should focus on the need to move beyond a buyer-seller relationship, and work toward codevelopment and coproduction in India. These efforts could particularly emphasize the maritime domain, which will be a primary locus of Indo-Pacific competition and which has traditionally not been a focus of Indian strategic attention; relatively modest defensive capabilities in this domain could contribute to boosting India's naval strength. Efforts also could include an "aspirational" system of high strategic importance that captures the imagination, symbolizes US-India cooperation, and provides momentum to other aspects of the relationship. For example, the two countries could work toward coproduction of F-21s or F-18s to help replace India's aging fleet of fighter aircraft.¹⁰

Second, expand joint strategic efforts into new areas. Ideally, these areas could combine security, where the two countries have enjoyed considerable success, with areas such as trade, where cooperation has lagged. The need to maintain secure supply chains across a diverse spectrum of sectors, ranging from energy to medicine to technology, could offer one such opportunity. "Friendshoring"—locating critical nodes of supply chains in trusted countries—is emerging as a potential means of enhancing supply-chain security. The United States and India could work together on friendshoring efforts, which would move production related to sensitive items such as lithium batteries, drones, artificial intelligence components, and semiconductors from unreliable or normatively problematic countries to India.¹¹ This would be less expensive than manufacturing these items in the United States, and more secure than producing them in countries such as China. And it would offer the United States and India a new form of security-related cooperation, the importance of which is likely to grow.

Third, base the US-India relationship on shared strategic interests, rather than on moral convergence. Moral issues have been a long-standing source of friction between the two countries. During the Cold War, each side routinely harped on the other's perceived ethical shortcomings. India, for example, upbraided the United States for its prosecution of the Vietnam War, while the US criticized India's closeness to the Soviet Union. Today, disagreements over Russia's invasion of Ukraine roil the relationship. US officials have publicly scolded India for failing to condemn the invasion and buying discounted Russian oil, and Indian officials have responded with accusations of hypocrisy.¹² Although such moral rancor will not derail the US-India partnership, it creates needless obstacles to cooperation. This can be largely avoided by focusing on the central goal of the US-India partnership: ensuring a free and open Indo-Pacific, composed of a network of like-minded independent states, by offsetting China's rising power and preventing its establishment of regional hegemony. The partnership does not require India and the United States to achieve convergence on any number of other normative issues, including their relationships with third-party states, domestic political arrangements, and energy. Although the two countries will often agree on such matters, sometimes overriding security or economic interests, or genuinely different moral viewpoints, will lead the two countries to adopt opposing positions on them. The United States and India must not lose sight of their larger strategic goals because of these other issues. Rather, they should agree to disagree in such cases, while actively pursuing their central shared strategic interests.

Fourth, the United States must avoid the temptation to reprise its alignment with Pakistan. The Trump administration distanced the US from Pakistan in light of long-standing Pakistani support for terrorism. But the United States now appears to be reversing course, seeking an “ever stronger” relationship through a \$450 million sustainment package for Pakistani F-16s, a visit of the Pakistan Army chief of army staff to Washington, and robust counterterrorism cooperation based on “shared values and interests.”¹³ This will increase the threat to India’s west and distract India from the task of balancing China. Renewed cooperation with Pakistan also indicates that the United States is an unreliable partner, seeking close Indo-US cooperation while underwriting India’s sworn enemy. The United States has little to gain in return for these costs. Though it was once a close partner in US counterterrorism efforts, Pakistan in fact supported violent religious extremism in South Asia and the Taliban in Afghanistan throughout the War on Terror.¹⁴ It can hardly be relied upon for robust counterterrorism support now. In addition, Pakistan is a close friend of China, which it considers its “all-weather ally,” and to which it is tethered through the \$60 billion China-Pakistan Economic Corridor.¹⁵ On occasion, the US can engage in limited counterterrorism cooperation with Pakistan, including measures such as overflight permission and actionable intelligence on specific targets. The two countries also can cooperate on humanitarian efforts in Pakistan and the region, and on improving trade relations. But more significant renewal of US-Pakistan relations is ill advised; it will harm the US relationship with India, ignore Pakistan’s long history of support for terrorism, and play directly into China’s hands.¹⁶

Finally, the United States and India must actively manage their diplomatic relationship. Recently, diplomatic relations have been allowed to languish. For example, the Biden administration took more than two years to appoint an ambassador to India. Eric Garcetti, the former Los Angeles mayor, had been nominated for the position but failed to secure Senate confirmation. Rather than quickly find a replacement, the administration stuck with Garcetti, resulting in a multiyear confirmation saga.¹⁷ This situation should have been corrected immediately. Failure to fill the ambassadorship impeded progress in United States-India relations, making the types of initiatives we discuss above more difficult. It also indicated a lack of US seriousness about India and the two countries’ relationship. This was not lost on the Indians, who are sensitive to matters of standing and protocol.¹⁸

Although the US-India strategic partnership consists of diverse components, it rests primarily on the two countries’ security relationship. This relationship has made remarkable strides in recent decades, but it will require attention from both parties to ensure continued progress. By adopting the five measures discussed above, the United States and India can continue actively to cultivate their partnership and ensure forward momentum into the future.

NOTES

1. US Department of State, “US Relations with India,” July 18, 2022, <https://www.state.gov/u-s-relations-with-india>; Huma Siddiqui, “US Security Report Says India an ‘Ally,’ China ‘Competitor’ and Russia ‘Threat,’” *The Financial Express*, October 13, 2022.
2. Jeffrey W. Hornung, “China’s War on International Norms,” *National Interest*, December 12, 2013.

3. Sebastian James, "Why Is China Ahead of India? A Fascinating Analysis by Amartya Sen," *World Bank Blogs*, July 17, 2013, <https://blogs.worldbank.org/psd/why-china-ahead-india-fascinating-analysis-amartya-sen>.
4. See S. Paul Kapur, "A New Special Relationship?" *National Interest* (November–December 2021).
5. P. K. Mallick, "2+2 Dialogue and Indo-US Relations," VIF Paper, New Delhi: Vivekananda International Foundation, October 2018.
6. Press Trust of India, "US Reaffirms 'Unwavering Commitment' to India as Major Defence Partner," *Business Standard*, September 25, 2021.
7. Khushboo Razdan, "US Sharing of Intelligence with India in Border Clash with China Seen as Pivotal in Partnership," *South China Morning Post*, April 11, 2023.
8. Gerrard Kaonga, "Ukraine War 'Warmup' for US in Face of China Threat: Stratcom Commander," *Newsweek*, November 4, 2022.
9. Howard LaFranchi, "How Can US Woo a Distrustful Pakistan? Flood Relief Was a Start," *Christian Science Monitor*, November 18, 2022.
10. Vivek Mishra, "India-US Maritime Cooperation: Crossing the Rubicon," *Maritime Affairs* 14, no. 2: 15–25; and Peter Suci, "F/18 Super Hornet Fighters for India: Here's Why It Could Happen," *National Interest*, November 2, 2020.
11. Julia Kollwe, "Friendshoring: What Is It and Can It Solve Our Supply Problems," *The Guardian*, August 6, 2022; and "Friendshore to Firm Up Supply Chains: US Treasury Secretary," *Times of India*, November 12, 2022.
12. Reuters, "US Treasury Official Heads to India to Discuss Russian Oil Purchases," *Indian Express*, May 25, 2022; ANI, "'Live with It': Jaishankar on India Stance on Ukraine War," *The Print*, November 26, 2022.
13. Press Trust of India, "US Approves \$450 million F-16 Sustainment Programme to Pakistan to Meet Counterterrorism Threats," *Times of India*, September 8, 2022; Umair Jamal, "Pakistan Army Chief Visits to Reaffirm the Stability of Ties," *The Diplomat*, October 7, 2022; and US Embassies and Consulates in Pakistan, "Two-Day Counterterrorism Dialogue Concludes in Islamabad," March 7, 2023.
14. S. Paul Kapur and Sumit Ganguly, "The Jihad Paradox: Pakistan and Islamist Militancy in South Asia," *International Security*, 37, no. 1 (Summer 2012): 111–41.
15. Diplomat Risk Intelligence, "In Numbers: The China-Pakistan Economic Corridor," *The Diplomat*, November 17, 2021.
16. See Sumit Ganguly and S. Paul Kapur, "The United States and Pakistan: A Strategic Renaissance?" Working Paper, April 2023.
17. James Rainey and Dakota Smith, "His Term Expiring, Garcetti Pushes Hard for Job as Ambassador to India," *Los Angeles Times*, November 19, 2022.
18. Shashi Tharoor, "America's Missing Ambassador to India," *Project Syndicate*, January 9, 2023.



Governance in the Indo-Pacific

The Maritime Domain

Abhijit Singh and Premesha Saha

International governance is liable to be understood and interpreted in many ways. One could construe it in terms of the management of politics, security, or economics. Alternatively, it could rationalize interactions in areas where national interests overlap, both as a means of ensuring growth and of reducing conflict. Areas where state objectives intersect include outer space, the cyber domain, and the maritime domain, and they are collectively referred to as the global commons. International governance is a way of framing rules and a rules-based order to facilitate transparency, trust, and accountability while promoting a sense of public well-being.

This essay focuses on the theme of ocean governance in the Indo-Pacific, as a way of addressing security concerns in the contested littorals. In recent years, growing criminal activity in the maritime domain has caused a shift in the maritime discourse from a focus on traditional security to a greater consideration of nontraditional challenges. Amid growing contests over the management of the seas, policymakers and practitioners have come to view the oceans as a common resource. This has led to a more practical view of the possibility of a virtuous cycle of ocean development through multilateral cooperation.

Consequently, the idea of “holistic maritime security” has attained greater salience in policy-making. The concept isn’t new, but maritime practitioners have only recently begun to internalize it with greater attention to human-centric security, in particular the challenges of disaster relief and resource management. Now, more than ever, the discourse around maritime issues involves a discussion of the United Nations Convention on the Law of the Sea (UNCLOS) and its provisions for regulating ocean-based resource harvesting.¹ The blue economy is increasingly in focus, with many countries in the Indo-Pacific region outlining a vision for marine economic growth. Quad nations, Southeast Asian and East Asian states have declared a robust agenda for ocean health, and biodiversity and conservation are increasingly the subjects of policy deliberation. Maritime doctrines and procedures are being progressively recalibrated to enable operations in a climate-stressed world, where the rendering of service to citizens is as important as the mission to combat adversaries.²

MARINE GOVERNANCE: A WORK IN PROGRESS

The foregoing constitutes the larger context of India-US collaboration in the maritime commons. Both sides recognize the need for ocean governance mechanisms; nontraditional security cooperation between Washington and New Delhi in the regional maritime commons is a prerequisite for a broader strategic partnership. Yet, bilateral efforts have consistently fallen short of the required ideal. This isn't only because maritime management in South Asia is inherently hard. It's also because India and the US haven't worked together to solve problems of marine governance, so they have unintentionally made things worse in the maritime commons.

In India's case, the discrepancy in marine governance relates to the rampant exploitation of sea resources and New Delhi's attempts to push back against foreign military activity in the exclusive economic zones (EEZs). The country's Maritime Zones of India Act of 1976 also does not align with international conventions in a few areas. The act decrees that foreign warships must give "prior notice to the Union Government" before transiting through territorial waters.³ India also asserts its right to extend provisions applicable in the territorial waters to the "contiguous zone," regarded by UNCLOS as a part of the EEZ. Indian officials contend that "innocent passage" for foreign warships through India's territorial waters requires the assent of Indian authorities, if not explicit authorization. In the area of marine conservation, too, Indian efforts have fallen short of expectations, especially with regard to overfishing in Indian waters.⁴

For its part, Washington has appeared unready for a governance role in littorals. The US has yet to ratify UNCLOS, the "holy grail" of maritime governance. More crucially, however, the country is still regarded by many in South Asia as an extraregional entity.⁵ US hesitation to participate in marine governance activities also stems from a perception of a regulatory deficit in the eastern Indian Ocean. US policymakers know marine governance in Asia is a gray area where there is little transparency and accountability about marine resource extraction and an overt reliance on voluntary measures for compliance with international law. Furthermore, regional states have not invested in data collection technology, with the result that the true causes and extent of overfishing, biosystem destruction, and coral bleaching remain unknown. With a rising focus on deep seabed mining and marine resource exploitation, concerns about the decline in biodiversity have been growing.⁶ Not surprisingly, Washington has avoided engaging in negotiations over marine regulation.

The other area of concern is the lack of investment in ocean governance initiatives. Marine governance requires a substantial outlay of funds. Fighting crime, cleaning up oil spills, and clearing marine litter are expensive and require substantial budgetary and technical support. The process of removing marine plastics from the sea, for instance, requires advanced technology; enforcing fisheries bans requires constant surveillance and data collection; and law enforcement agencies require top-end assets to police protected zones and prevent illegal migration. Few governments in South Asia have made the necessary financial investments, and the private sector, too, remains wary of putting its money in areas where there are no guarantees of returns.

The foregoing is not meant to minimize the importance of traditional security issues. The maritime domain is witnessing growing territorial disputes, particularly in the western Pacific region, as well as disagreements over coastal states' jurisdiction within the EEZs. There is concern that China's jurisdictional creep in the South China Sea and its reclamation of disputed features are pushing an already bitter rivalry with other claimant nations and the United States to a new worrisome high. This adds urgency to the need for greater consultation and cooperation among regional powers over traditional security issues in the Indo-Pacific region.

THE WAY AHEAD: POTENTIAL FOR INDIA-US COOPERATION

From an India-US point of view, the question is what the two countries can do together to improve the management of the maritime commons. The answer isn't simple, especially since the focus of bilateral engagement in the past few years has been on traditional security and governance, and conservation has been an afterthought. The fact that the US and India haven't agreed on the issue of user-state rights in the EEZ (freedom of navigation and innocent passage) is another reason why they haven't been able to devise a joint plan for development and management in the maritime commons. To complicate matters further, Washington has opposed New Delhi's stand on fisheries in the World Trade Organization (WTO), further constraining dialogue around resource management and conservation.⁷ The US has led a move by developed countries at the WTO to scrap subsidies for fishermen. India has been at the forefront of a demand by developing nations for a balance between current and future fishing needs as well as effective special and differential treatment, keeping in mind the developmental needs of the people.⁸

In order for India and the US to work together better in the maritime commons, especially in the area of marine governance, they need to fix the imbalance between security and governance in their maritime talks. New Delhi and Washington need to give marine governance more attention and agree on how to interpret important parts of UNCLOS. While both sides understand each other's points of view, neither seems ready to compromise on its position relating to coastal state/user state rights in the EEZs.

The US freedom of navigation operation (FONOP) 130 nautical miles west of Lakshadweep in April 2021, and the misgivings it caused in New Delhi, were illustrative of the lack of alignment between the US and India in matters of maritime governance.⁹ When the USS *John Paul Jones* conducted the Lakshadweep FONOP, Indian observers saw it as an unnecessary provocation by the US Navy. The disquiet in Delhi was heightened by an unusual press release by the commander of the US Seventh Fleet that said the operation was held in India's exclusive economic zone "without New Delhi's prior consent as a way of asserting US navigational rights and freedoms."¹⁰ Many in New Delhi saw this as political signaling by the US, meant to repudiate India's position vis-à-vis coastal state rights under UNCLOS. The Pentagon sought to defend the military operation, terming it "consistent with international law," but Indian analysts interpreted the maneuver differently.

REGIONAL CAPACITY BUILDING AND HADR

New Delhi and Washington also need to do more regional capacity building. Both governments should make strengthening Indian Ocean littoral states the centerpiece of future collaboration. The focus should be on developing effective mechanisms for intergovernmental cooperation on maritime law enforcement in domestic zones in the Indian Ocean. Opportunities for planning and exercises around humanitarian assistance and disaster relief (HADR) exist, particularly in South Asia and other countries in the region comfortable with engagement. Such collaboration can develop effective mechanisms for intergovernmental cooperation on maritime law enforcement in domestic jurisdictions in the Indian Ocean. India and the US could partner in building flat-bottomed boats for island states for HADR purposes. Subsequent to the launch of the Indo-Pacific Maritime Domain Awareness (IPMDA) initiative by the Quad countries in Tokyo in May 2022, an opportunity has emerged for India and the US to cooperate on shared domain awareness and maritime governance in the Indian Ocean.¹¹

DOMAIN AWARENESS AND COOPERATIVE MISSIONS

India is already playing a key role in regional domain awareness initiatives. The Indian Navy has established an information fusion center for the Indian Ocean region and has also sought to expand the surveillance footprint by setting up radar stations in smaller Indian Ocean states. Bangladesh, Maldives, Mauritius, Myanmar, Seychelles, and Sri Lanka have already integrated into the wider coastal radar chain network. The Indian Navy's own surveillance efforts have grown significantly, with increased aerial surveillance and reconnaissance missions from the Andaman and Nicobar Islands.

India is also focusing on more cooperative tasks in the littorals, such as counterpiracy, counter-trafficking, and illegal, unreported, and unregulated fishing. Coast guard cooperation is an increasingly attractive option to assist regional states with their maritime challenges to advance security partnerships. Coast guards serve as a potent soft-power tool. As agencies focused primarily on law enforcement and safety, they are a useful regional instrument to enhance cooperation since they can work alongside other regional security agencies, without seeming to assert national interests or being overtly militaristic in conduct.

GREEN TECHNOLOGIES AND CLIMATE CHANGE

Transfer of green technology from the US to India would be helpful. India needs green technology for more efficient blue economy projects in fisheries, aquaculture, alternative energies, marine technology, and smart tourism infrastructure. In part, the failure to protect the marine environment in South Asia is attributable to the absence of trained personnel. Innovation and technological development in critical sectors have been lacking, and blue economy models have not been tested in field conditions. The US can help India with innovation and training to implement blue projects.

Climate change adaptation and mitigation is another area of potential collaboration. India and the US must collaborate in developing efficient low-carbon fuels, and in fortifying port infrastructure for extreme weather events and sea-level rise. The two countries should consider jointly training South Asian marine law enforcement agencies for disaster relief operations.

Washington and New Delhi need to come up with a plan for managing the oceans that is attentive to the needs of coastal communities and that strikes a balance between economic growth and marine conservation. One way to do that is through spatial zoning and marine spatial planning in ecologically sensitive zones. India could rely on Australia, a Quad partner, for some direction in this regard. The Australian government's efforts at preserving the Great Barrier Reef as a "marine park" serve as a useful example of the importance of marine spatial planning. India could plan a similar project around its Andaman and Nicobar Islands, which contain some of the world's most diverse marine and coastal ecosystems.

THE INDO-PACIFIC OCEANS INITIATIVE TEMPLATE

Taking a cue from the Quad's IPMDA initiative, India and the US should think about working together with countries in the Indian Ocean Rim Association (IORA) to implement sustainable practices for marine governance. The US could help states in the region change their manufacturing processes by giving them tools for sustainable development that use green technology. An India-US partnership in the Indo-Pacific Oceans Initiative (IPOI) could prove critical. The central goals of the joint initiative could be as follows:

- Discuss ways to build partnership and regional consensus, generate ideas, and advance practical cooperation under the maritime ecology and conservation pillar of the IPOI.
- Improve understanding of marine pollution dynamics in the Indo-Pacific, including tools to better understand the spatial and temporal distribution of microplastics and the detection of floating marine plastic.
- Develop innovative approaches to building the circular economy focused on recycling, reuse, and refurbishing.
- Explore possibilities in which the IPOI could link with existing regional mechanisms and arrangements, in particular, the Association of Southeast Asian Nations (ASEAN), IORA, and the Pacific Islands Forum.
- Deepen institutional links between researchers, businesses, and the government on maritime issues to improve US-India cooperation.

CONCLUSION

Indian and US policymakers ought to place conservation and ecosystem maintenance front and center of their maritime agendas. They must redouble efforts to collectively tackle the

regulatory landscape. The only way forward is to coordinate their approaches. It's relevant that while regional states have been eager to leverage the blue economy for diplomatic purposes, their propositions have so far been little more than declarations of noble intent. India and the US must put something substantive on the table and lead by example.

NOTES

1. "UNCLOS 'Laws of the Seas' at Heart of UN Security Council Consensus, China Onboard," *India Today*, August 10, 2021, <https://www.indiatoday.in/india/story/unclos-law-of-sea-un-security-council-maritime-security-open-debate-india-presidency-1838903-2021-08-09>.
2. Forest Reinhardt and Michael Toffel, "Managing Climate Change: Lessons from the US Navy," *Harvard Business Review* (July–August 2017): 102–11, <https://hbr.org/2017/07/managing-climate-change>.
3. See section 4 of "The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976," https://legislative.gov.in/sites/default/files/A1976-80_0.pdf.
4. "TN Fishing Vessels Scouring Kerala Waters: Boat Owners to Hold Protest," *New Indian Express*, June 17, 2022, <https://www.newindianexpress.com/cities/kochi/2022/jun/17/tn-fishing-vessels-scouring-kerala-waters-boat-owners-to-hold-protest-2466502.html>.
5. Steven Groves, "Should the US Ratify the UN Convention on the Law of the Sea?," Heritage Foundation, June 13, 2022, <https://www.heritage.org/global-politics/commentary/should-the-us-ratify-the-un-convention-the-law-the-sea>.
6. "As India Plans Deep Seabed Mining, Concerns about Marine Biodiversity Emerge," *Scroll*, July 5, 2021, <https://scroll.in/article/999265/as-india-plans-deep-seabed-mining-concerns-about-marine-biodiversity-emerge>.
7. "EU, US Oppose India's Demand for Special and Differential Treatment in Fish Subsidy Talks," *Economic Times*, July 17, 2021, https://economictimes.indiatimes.com/news/economy/foreign-trade/eu-us-oppose-indias-demand-on-fish-sops/articleshow/84484635.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst.
8. "US, EU Oppose India's Subsidy Cut Waiver Proposal," *Economic Times*, October 3, 2020, <https://economictimes.indiatimes.com/news/economy/foreign-trade/us-eu-oppose-indias-subsidy-cut-waiver-proposal/articleshow/78452359.cms?from=mdr>.
9. "US Navy Ship near Lakshadweep: New Delhi Conveys Concerns to Washington," *Business Standard*, April 10, 2021, https://www.business-standard.com/article/current-affairs/us-navy-ship-near-lakshadweep-new-delhi-conveys-concerns-to-washington-121040901163_1.html.
10. Abhijit Singh, "Not on the Same Page at Sea," *The Hindu*, April 13, 2021, <https://www.thehindu.com/opinion/op-ed/not-on-the-same-page-at-sea/article34304977.ece>.
11. "Quad Set to Launch Maritime Security Initiative in Indo-Pacific," *Times of India*, May 24, 2022, <https://timesofindia.indiatimes.com/world/us/quad-set-to-launch-maritime-security-initiative-to-track-dark-shipping-in-indo-pacific/articleshow/91758120.cms>.



Governance in the Indo-Pacific Region

Opportunities for US-India Cooperation

Dinsha Mistree

The Indo-Pacific region encompasses a vast and diverse area that stretches from the shores of the Indian Ocean to the West Coast of the United States. It is home to almost half of the world's population and is a key focus of global politics and economics. However, this region also faces a range of governance challenges that have implications for regional stability and global security. Both the United States and India are committed to a strong, stable, and prosperous Indo-Pacific region. Yet despite this shared vision, the US and India have historically engaged the region without mutual coordination. The purpose of this short paper is to explore what prevents deeper US-India regional cooperation, identify what can be gained from a more coordinated engagement, and suggest a structure of engagement in which India leads with US support.

A HISTORY OF DIVERGENT INTERESTS

The United States and India have historically not shared common interests in the Indo-Pacific region. During the Cold War, US strategy in the region was squarely focused on containing the spread of Communism. To this end, the US led efforts to create the Southeast Asia Treaty Organization (SEATO, formed in 1954), which brought together regional allies including Pakistan, the Philippines, and Thailand, as well as other Western powers like the United Kingdom and Australia. India was not included. SEATO ultimately dissolved following the Vietnam War. And although it was not a founding member, the US was also a driving force in promoting the Association of Southeast Asian Nations (ASEAN, formed in 1967), which is today the preeminent regional governing body in the region. Again, India was not involved.

India's regional interests during the Cold War were fundamentally different from those of the United States. As the leading country in the nonaligned movement, India sought to work with both the West and the Communist powers. Instead of focusing on containment, India sought to ensure its own security in the region. Apart from a handful of halting efforts at multilateral regional leadership following its independence in 1947, India has largely favored bilateral engagement in the region.¹ This is due in part to India's problematic proximity to Pakistan. Consider India's participation in perhaps its most prominent regional governance structure, the South Asian Association for Regional Cooperation (SAARC). SAARC ostensibly brings eight countries together to promote peace and prosperity but has repeatedly struggled to address terrorism between member states. The last scheduled SAARC summit was supposed to have taken place in Pakistan in 2016, but several countries boycotted it following an attack by a Pakistani terrorist organization on an Indian army outpost in Jammu and Kashmir.

Today, the US and India share similar outlooks for the region. Both countries are concerned about China's growing power and influence. China has long sought to extend its reach across Central Asia and the Indo-Pacific, but has become particularly aggressive in recent years. China has initiated a number of border clashes with India and has pushed for pro-China governments in several countries that have historically been in India's sphere of influence, including Nepal, the Maldives, and Sri Lanka. Also, both the US and India are committed to reducing the specter of terrorism. India worked closely with the US in fighting the Taliban and on rebuilding Afghanistan. India rightly took a skeptical view of US efforts to negotiate with the Taliban and suffered considerably from the withdrawal of US troops from Afghanistan.

Both the US and India ultimately want a free and open Indo-Pacific region. Such a vision needs to be approached in a coordinated manner. The US does not have the regional relationships or local resources that India enjoys in Central Asia and the Indo-Pacific. This disparity has only grown following the US withdrawal from Afghanistan and the US commitments made following the Russian invasion of Ukraine. At the same time, India does not have the technology and resources that the US and its allies can bring to the table. Simply put, the US and India stand to gain from a shared approach to governance in the Indo-Pacific region.

A PATH FORWARD

The relationship between the US and India is bigger than the Indo-Pacific. Bilateral trade between the two countries in 2021 stood at \$154 billion. The US is home to India's largest diaspora community, and US citizens routinely visit and live in India. There are also sensitive areas in the relationship, as the US has historically resisted providing advanced weapons to India while India has dragged its feet on condemning the Russian invasion of Ukraine. Both countries have also expressed concerns over one another's domestic

politics, including the rise of nationalism in both countries and the resultant threats to civil liberties.

These broader dynamics of the relationship undoubtedly color US and Indian cooperation in Central Asia and the Indo-Pacific, but should not limit what can be achieved. Instead, there are two specific sore points that could constrain US-India regional cooperation. First, the US needs to adjust its position on Pakistan. Pakistan poses an existential threat to India. The US has historically sought to balance India and Pakistan against one another. History has shown the error in this balancing approach: Pakistan has supported the Taliban and continues to harbor terrorist organizations while also championing Chinese and Russian interests. The Pakistani military—which de facto runs the country—has demonstrated time and again that it prefers a constant state of regional instability. As long as the US supports Pakistan, India will be suspicious of US regional engagement.

Second, the US will achieve more in the region by supporting India as a regional leader. In recent years, US leaders have suggested that the two countries should work as equal partners on a range of regional issues. The US should also approach India as an equal partner on some nonregional problems, such as energy and climate change, but India has demonstrated its ability to lead in the region in recent years.

Consider India's response to Sri Lanka's default on its sovereign debt in April 2022. This default triggered a humanitarian crisis, leading to unnecessary suffering as well as political turmoil.² In its role as the regional leader, India quickly sought to stabilize the situation by extending multibillion dollar credit facilities in addition to sending emergency humanitarian assistance to Sri Lanka. By September, the International Monetary Fund (IMF) reached a staff-level agreement to provide a \$2.9 billion package to support Sri Lanka's economic recovery, pending the country's ability to secure debt restructuring with its creditors.³ The expectation was that Sri Lanka would quickly reach an agreement with its major bilateral creditors: the Paris Club (led by Japan), China, and India.⁴ As of December 2022, China has unfortunately not yet agreed to a debt restructuring, delaying Sri Lanka's recovery.

Apart from Sri Lanka, several countries in the Indo-Pacific region and Central Asia face looming economic crises. Many others simply want to chart a course for economic development that does not run through Beijing. The US and India should work together to provide viable alternative paths to prosperity for countries in the region. This can be achieved in the short term by coordinating aid and stabilization efforts in countries like Sri Lanka and by offering alternative economic approaches that check China's economic influence in countries like Bangladesh, Myanmar, and Nepal. But unlike previous eras, the US does not need to lead these efforts. Not only has India demonstrated its leadership, but following the US's failure to ratify the Trans-Pacific Partnership and its current bipartisan disposition against trade and investment deals, the smart approach to regional economic engagement may be one led by India with US support.⁵ For

its part, India seems more willing than ever before to engage in trade negotiations (most notably with the UAE, the UK, and Australia), but it is not presently pursuing any regional agreements.

The US should also strengthen Indian capabilities so that India can play a leading regional role on security matters. If India becomes a reliable regional security leader in Central and South Asia, the benefits to the US would be manifest. The US could reduce its resource spend in these regions, allowing it to focus on other hotspots. To position India as a regional security leader, the US should consider developing intelligence-sharing protocols and joint training and exchanges, and it should perhaps even consider providing military aid. To this end, as India transitions from legacy Russian military equipment, it should adopt weapons systems that are sourced from the US and its allies.

RESETTING THE RELATIONSHIP

After decades of conflicting agendas, the US and India need to recognize a common vision for the future of the Indo-Pacific. Both countries would gain by working together to create a regional governance structure centered around India. But it is worth recognizing that due to these historical differences, US-India relations in the Indo-Pacific have been marked by suspicion and distrust. To this day, legacy voices in both countries' foreign policy establishments warn their leaders about the other country's "true" intentions. These critiques need to be countered by like-minded organizations in both the US and India, working together to bring a spirit of cooperation to these relations. Through such activities, a strong, stable, and prosperous future for the Indo-Pacific region is attainable.

NOTES

1. India's founders were initially keen to position the country as a regional power in Asian affairs. In April 1947, the leaders of soon-to-be-independent India convened the Asian Relations Conference in Delhi, bringing together representatives from across Asia. In its early years, India also participated in the Colombo Plan for Cooperative Economic and Social Development in Asia and the Pacific (started in the 1950s), as well as several other regional conferences and dialogues. India ultimately shifted its foreign policy positioning from seeking regional leadership toward the nonaligned movement during the Cold War.
2. On the causes of Sri Lanka's debt crisis, please see Dinsha Mistree and Sumit Ganguly, "How Sri Lanka's Debt Crisis Has Been Decades in the Making," *South China Morning Post*, April 6, 2022, <https://www.scmp.com/comment/opinion/article/3173030/how-sri-lankas-economic-crisis-has-been-decades-making>.
3. "IMF Staff Reaches Staff-Level Agreement on an Extended Fund Facility Arrangement with Sri Lanka," International Monetary Fund, September 1, 2022, press release, <https://www.imf.org/en/News/Articles/2022/09/01/pr22295-imf-reaches-staff-level-agreement-on-an-extended-fund-facility-arrangement-with-sri-lanka>.
4. Umesh Moramudali and Thilina Panduwawala, "Demystifying China's Role in Sri Lanka's Debt Restructuring," *The Diplomat*, December 20, 2022, <https://thediplomat.com/2022/12/demystifying-chinas-role-in-sri-lankas-debt-restructuring>.

5. The US recently launched the Indo-Pacific Economic Framework (IPEF), which brings several countries together to work through various economic matters from corruption and taxation to clean energy and decarbonization. One of the pillars of the IPEF is a focus on fair and resilient trade, but the Biden administration has made it clear that negotiations over this pillar would not involve market access. If the US is not interested in leading a regional trade bloc, it should at least support any efforts by India to do so.



The Challenge of Trade

Tackling the Achilles' Heel in the US-India Partnership

Mohan Kumar

THE CHALLENGE

If there is one relationship that can be considered truly transformative in India's foreign policy, it is the one with the United States. India has about thirty strategic partnerships in the world, but it is hard to think of any relationship more consequential than the one with America.¹ From the Next Steps in Strategic Partnership in 2004 to the new framework for India-US Defense Relations in 2005, the Indo-US nuclear cooperation agreement in 2008, the agreement on the India-US Defense Technology and Trade Initiative in 2012, the recognition of India as a Major Defense Partner in 2016, and the signing of LEMOA (Logistics Exchange Memorandum of Agreement) and COMCASA (Communications and Compatibility Security Agreement), the journey has been breathtaking and is ongoing. Defense trade, which was a lowly \$1 billion in 2008, is now well over \$20 billion.

By 2017, the US had bought into the concept of the "Indo-Pacific" propounded by the late Japanese leader Shinzo Abe.² It was also around the same time that the Quad (Quadrilateral Security Dialogue comprising the US, India, Australia, and Japan) was reinvigorated and given shape by the US and Japan.

Indo-US ties have gone from strength to strength. There are some fifty bilateral dialogue mechanisms between the two countries.³ This is unprecedented in bilateral relationships that India has with any other country.

Despite all of the above, cooperation on trade, investment, and intellectual property has been bedeviled by seemingly intractable issues. The US is one of the few countries with which India has a favorable trade balance. Conversely, the US suffers a trade deficit when it comes to India. In 2021, the US was India's largest trading partner, with two-way trade totaling \$160 billion. Out of this, the US has a trade deficit of about \$50 billion.

This has been a sore point between the two countries, with the United States contending that India remains a closed economy with high tariff barriers, particularly in agriculture, and cumbersome nontariff barriers. Because India has what is known as “tariff slack”—a gap between its applied tariffs, which it actually charges, and its bound tariffs, which under World Trade Organization (WTO) rules it cannot breach—it can actually raise its applied tariffs without violating its WTO obligations. India does this from time to time, causing uncertainty for US exporters.

India also opposes the continued US “Section 232” steel and aluminum tariffs, to which it retaliated with tariffs of its own. It speaks to the vibrancy of bilateral ties and the sheer power of market forces that despite all this, trade has shown an upward swing. Indeed, the US surpassed China to become India’s top trading partner in 2021-22.

The services trade, which includes IT and consultancy, freight, banking, and shipping, has been more balanced than other sectors. Total Indian services exports stand at over \$250 billion annually, out of which 60 percent are destined for the US. Investment ties also have potential, with Indian investment in the US reaching approximately \$13 billion and supporting over seventy thousand jobs. And there are over two hundred thousand Indian students in the United States, contributing \$8 billion annually to the US economy. US concerns include investment barriers, such as India’s limits on foreign ownership and its local presence requirements. For India, the questions are those of visa availability and the need for a “totalization agreement,” which would address the problem of Indian nationals who work in the United States for a short time but are still required to pay into US pension and gratuity funds, from which they do not benefit when they return to India.

Intellectual property rights (IPRs) have always been an area of contention between the two countries. Thus, India remains on the United States Trade Representative’s (USTR) Priority Watch List in 2022.⁴ The USTR’s Special 301 Report concedes that India’s enforcement of IPRs has gradually improved, that increased staffing has reduced patent examination times, and that engagement with the US on IPRs issues has accelerated. Despite this, the report concludes that there continues to be a lack of progress on long-standing concerns raised in prior Section 301 reports. It adds that India remains one of the world’s most challenging major economies with respect to protection and enforcement of IPRs.

On digital trade, there has been a positive development. A political agreement on this issue was reached between the two countries in November 2021. In exchange for India’s commitment to transition from its Digital Services Tax to a newly concluded global tax framework, the US agreed to terminate additional, already suspended, duties on certain goods from India.

On defense, bilateral trade has risen from next to nothing in 2008 to a whopping \$20 billion. The United States named India a Major Defense Partner in 2016. India was also granted Strategic Trade Authorization tier 1 status in 2018, allowing it license-free access to dual-use technologies. Reports have suggested that the US is preparing a military aid package for India to the tune of \$500 million. The objective would be to reduce Indian dependence on military

platforms from Russia. The major challenge is how to provide India platforms like fighter jets, naval ships, and battle tanks. A breakthrough could happen in 2023.

COOPERATIVE SOLUTIONS

The premier forum for resolving trade and investment issues between India and the United States is the Trade Policy Forum. This was established in 2010 but for a variety of reasons became dormant after 2017. After a long gap, it met in Delhi in November 2021. It has five focus groups: agriculture, innovation, investment, services, and tariff/nontariff barriers.

India and the United States should take the following steps:

- 1.** The United States must restore Generalized System of Preferences (GSP) status for India as soon as possible. Although in monetary terms this step would be worth only about \$6.6 billion to India, it would more importantly serve as a significant confidence-building measure. It is also linked to the bigger issue of the US recognizing India as a developing country, entitled to special and differential treatment (S&DT) in the WTO. Currently, by opposing S&DT for India, the US lumps India together with China. But as the US knows, India has much higher levels of poverty than China; some estimates put it at five hundred million in a population of 1.4 billion. Indeed, China's per capita income is over \$10,000 while India's is below \$2,500.⁵ This is an easy case, and the sooner the United States can align its policy with India's economic reality, the better it will be for the US-India strategic partnership.
- 2.** Pending the convening of the full Trade Policy Forum (which should meet at least once every six months, even if virtually), the individual focus groups could start work immediately. The tariff/nontariff group's first move should be to get rid of the excessive tariffs imposed by the US under Section 232, followed by removing India's retaliatory tariffs. This can be followed by withdrawal of the dispute cases that India and the United States have filed against each other in the WTO. India must provide some assurance to the United States that there will be no further increases in tariffs over and above the applied levels, at least for products of interest to the US.
- 3.** The innovation focus group of the Trade Policy Forum can deal with all outstanding issues regarding IPRs. India is negotiating free-trade agreements with both the European Union and the United Kingdom, and one of the subjects there is IPRs. India should keep this in mind, so that whatever it does with the EU and the UK can be applied to the US *mutatis mutandis*.
- 4.** Relevant focus groups of the Trade Policy Forum may deal with outstanding issues relating to services and investment. As noted earlier, the Forum seeks to activate its working groups in the fields of agriculture, tariffs, services, investment, and intellectual property. In January 2023, Minister Piyush Goyal and Ambassador Katherine Tai directed the working groups to reconvene quarterly and identify specific trade outcomes to ensure that the India-US relationship begins to reach its full potential. This relationship is far

too important to be left only to the bureaucracies of the Ministry of Commerce and of the USTR. It is important for ministers on both sides to be constantly engaged, and even involve the White House and the Prime Minister's Office if need be.

5. In the future, India and the United States must cooperate in the newly minted Indo-Pacific Economic Framework for Prosperity (IPEF).⁶ The US Indo-Pacific Strategy promises to support India's continued rise and regional leadership.⁷ In this context, it is noteworthy that India joined the IPEF as a founding member. The IPEF has four pillars: trade, supply chains, clean energy (decarbonization and infrastructure), and tax/anti-corruption. At the IPEF Ministerial held in Los Angeles in September 2022, India decided to join three of the four pillars and put off joining the trade pillar. It is important that India join this pillar without delay. It is hard to separate the trade pillar from the other three; all of them are interlinked. If the IPEF is meant to write the rules of Globalization 2.0, then India cannot but be part of it. Although this view is gaining ground, India needs assurance that the US will recognize its developing-country status and give it a reasonable transition period to meet the standards of countries like the US. India is certainly moving in the right direction. But with 30 to 40 percent of the population living in abject poverty, without a social safety net, it cannot be expected to make rapid progress on issues that will impact employment and cost of living.

CONCLUSION

The Indo-US strategic partnership has gone from strength to strength. But bilateral trade, investment, and commercial ties have not kept pace with sectors like defense. More important, they have the potential to impede and even imperil the bilateral strategic partnership in the Indo-Pacific beyond. It is necessary to act in a timely manner to ensure this does not happen.

The following measures may be taken to put relations in this area back on track:

1. The US should restore GSP for India and recognize its sui generis nature, that is, a low-income developing country with sectors of excellence, such as IT.
2. Both countries should remove forthwith the duties imposed by one another on steel, aluminum, etc.
3. Both countries should withdraw each other's disputes at the WTO.
4. A 2+2 meeting involving the State Department/USTR on the one side and the External Affairs Ministry/Ministry of Commerce on the other should convene.
5. Minister Goyal and USTR Tai should meet at least twice a year.
6. Prime Minister Narendra Modi and President Joe Biden should meet annually, setting aside some time to look at the trade, investment, and IPRs, so that effective political intervention can resolve problems in time.

The importance of Indo-US trade and economic cooperation cannot be overstated. India and the US must now work closely to deliver on their rhetoric by taking concrete actions. We must not get bogged down by tariffs, disagreements over GSP, and WTO disputes. Rather, India and the United States must get these problems out of the way, so that the issues discussed above can get the attention they deserve.

NOTES

1. Ian Hall, "Multialignment and Indian Foreign Policy under Narendra Modi," *Round Table: The Commonwealth Journal of International Affairs* 105, no. 3 (May 2016): 271-86.
2. Jack Detsch, "How the US Learned to Stop Worrying about the Pacific and Love the 'Indo-Pacific,'" *Foreign Policy*, July 30, 2021.
3. "Brief on India-US Relations," Ministry of External Affairs, June 2017, https://www.mea.gov.in/Portal/ForeignRelation/India_US_brief.pdf.
4. Office of the United States Trade Representative, *2022 Special 301 Report*, April 27, 2022, <https://ustr.gov/sites/default/files/IssueAreas/IP/2022%20Special%20301%20Report.pdf>.
5. World Bank, GDP per Capita: China, India, 1960-2022 (accessed June 1, 2023), <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=CN-IN>.
6. White House, "Statement on Indo-Pacific Economic Framework for Prosperity," May 23, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/23/statement-on-indo-pacific-economic-framework-for-prosperity>.
7. White House, "Indo-Pacific Strategy of the United States," National Security Council, February 2022, <https://www.whitehouse.gov/wp-content/uploads/2022/02/U.S.-Indo-Pacific-Strategy.pdf>.



US-India Economic Cooperation

David Mulford and John Rivera-Dirks

Economic cooperation between the United States and India is at an all-time high and continues to grow at a fast pace. Yet, this level of cooperation is not the result of inter-governmental initiatives. Rather, it has emerged in their absence. For the US-India economic relationship to reach its full potential, there must be a more serious approach by both countries to removing economic and trade barriers, while improving the business environment and people-to-people ties.

The United States and India have a long history of economic cooperation. In the early years of the relationship, the focus was on aid and technical guidance, with the United States providing resources to support India's economic development. However, over the past two decades, the relationship has become better balanced, as today India is the fifth-largest economy in the world.¹ This US-India economic relationship has largely emerged and been strengthened by the private sector in both countries working together on a range of initiatives.

Consider the numbers. More than two hundred thousand Indian students study in the US every year. Many of them remain in the US and become successful entrepreneurs, leading executives, and professionals. They directly participate in the growth of the US economy. And apart from personal remittances and philanthropy, they develop business ties between our two countries.² The Indian diaspora in the US is estimated to have doubled in size since 2000, to the benefit of both countries. At nearly five million people, it is now both a political and an economic force.

Trade in US goods and services with India totaled approximately \$146.1 billion in 2019, having nearly tripled over the prior decade. The US is presently India's largest export destination, driven by a booming software and services industry. India is the United States' twelfth-largest export market as of 2019, with much of the potential coming from India's emerging middle class of consumers.

Apart from people and trade, we must also consider investment flows. India has prospering capital markets, not just in the region but also in the world. The Bombay Stock

Exchange and the National Stock Exchange attract substantial US investment. US venture capital firms actively promote Indian entrepreneurship, and several of India's "unicorns" (i.e., companies valued at more than \$1 billion) benefit from access to international capital. Meanwhile, US foreign direct investment into India has grown to \$45.9 billion as of 2019. US companies are investing in India to take advantage of India's growing domestic markets and are also attracted by a young and talented workforce. Every major US tech company operates a research center in India. Major US companies are also investing in high-end manufacturing and technical services in India.

Despite these positive developments, the United States-India economic relationship faces headwinds. It is true that people-to-people flows are achieving all-time highs, but problems with US visa processing remain, which is like sand in the gears of the relationship. The visa issues were discussed in high-level dialogues between US Secretary of State Blinken and Indian Foreign Minister Jaishankar in fall 2022, as well as between Senate Leader Schumer and Prime Minister Modi in winter 2023. However, the US State Department has been slow to address them and is focusing primarily on the student and business community, leaving first-time tourist travelers to wait nearly fifteen months for a visa interview appointment.

US-India trade is strong, and yet there is no free-trade agreement, let alone any bilateral trade agreement, between our two countries. Indeed, there is presently no forum for discussing trade matters. And although US investment into India has grown considerably in recent years, there are still multiple pain points that remain unaddressed.

Several solutions can and should be identified, but at its core the challenge of enhancing economic cooperation must involve convincing leaders in Washington and Delhi that this partnership fundamentally matters. For example, it took over two years for the Senate to confirm a US ambassador plenipotentiary to India, which only happened in March 2023. This lack of on-the-ground US leadership in Delhi set back the process of cooperation.

Leaders in Washington need to recognize that India is among our most steadfast friends, not just in the South Asia region but perhaps across all of mainland Asia. The geostrategic implications should be too important for US policymakers to ignore. Both the US and India need to be concerned about an imperialist China, which is aligning toward Russia despite the Ukraine war. Both countries need to cooperate to stem the instability in Central Asia, and it will be to both countries' detriment if we cease to be vigilant against terrorism.

The US and India have mostly decoupled economic cooperation from these larger geostrategic considerations, with the notable exception of the Indo-Pacific Economic Framework for Prosperity (IPEF).³ This multilateral partnership is part of the United States' broader Indo-Pacific Strategy and is structured around four pillars: trade, supply chains, clean energy, and tax/anti-corruption issues. India serves as a founding member, although

it has refused to engage in trade discussions. Although IPEF is a promising development, it remains to be seen whether multilateral engagement to achieve strategic goals is an effective approach.

For their part, Indian officials also need to recognize the strategic importance of deeper engagement with the US. As Chinese influence expands across Asia—and especially as China consolidates control over Southeast Asia—India needs free and open maritime routes in the Indo-Pacific. The navies of both countries are working together to keep these vital trade routes independent, but it appears that Indian officials have decoupled strategic interests from economic bargaining when it comes to the US. Apart from China, India can benefit from US support as it seeks to be a leading world power.

Setting aside these geostrategic considerations, it is apparent that there is tremendous potential value in the world's most prosperous country working hand in hand with the world's most populous country, of 1.4 billion people. At a person-to-person level, Americans and Indians fundamentally like one another. They get along. Linguistic differences are becoming increasingly easy to overcome, as English is commonly a second language, and there is a natural cultural affinity between the two countries. The vibrant (and growing) diaspora communities in both countries stand testament to this fact. The Indian diaspora in the United States proved influential with political leaders in voicing its support for the passage of the US-India civil-nuclear legislation in 2008.

How can we get our respective government leaders to recognize the shared strategic interests and cultural commonalities between our two countries?

First, bilateral diplomatic engagement must be strengthened. While regional partnerships like the Quad and IPEF are worth pursuing, the US and India must continue in-person bilateral summits that started with Modi's state visit in June 2023 and saw Biden visit India for the first time as president for the G20 in September 2023. Multilateral engagements are not necessarily well suited to deepening bilateral relations. The recently confirmed US ambassador to India, Eric Garcetti, needs to lead an aggressive economic and trade agenda to pave the way for US and Indian businesses to work better together on the most pressing issues and opportunities. Garcetti must reinforce to the world that the relationship between the two countries is strong and that we are working directly together on key economic, security, and geopolitical issues.

High-level political buy-in is a necessary step in bringing our two countries closer together, but it will not be sufficient on its own. If the governments are truly going to drive the US and Indian economic relationship forward, then mid-level and low-level government-to-government engagement will also be critical. Our countries should pursue joint research and development projects across several fields, including water security, digital infrastructure, health care, and energy. It is critical that the intent of the historic 2008 US-India Civil Nuclear Agreement to provide India with the energy it needs to sustain growth is fully realized. We will need to resume regular bilateral

discussions on trade and investment with the goal of working toward a free-trade agreement. Policymakers will need to identify and execute investment initiatives that facilitate foreign direct investment into India by US companies and vice versa to create jobs and spur economic growth on both sides. We will need to establish a framework for joint maritime patrols along major shipping routes within the Indo-Pacific region to protect freedom of navigation and promote regional stability. Our respective governments will also need to pursue capacity-building programs in areas such as financial services, education, and public health to support economic development in the region.

It is sometimes said that the interests of the United States and India are naturally converging. The expectation is that our relationship will automatically deepen as our economies grow and our respective peoples increase their interactions. And no one can deny that our two countries have come closer together over the last two decades. But we also should not take this partnership for granted. For United States–India economic cooperation to achieve its full potential—and for the US-India relationship to become a trusting partnership—we need committed leadership.

NOTES

1. G. V. Nadhanael, Subhadhra Sankaran, Shashi Kant, Kunal Priyadarshi, Garima Wahi, Ramesh Kumar Gupta, Pankaj Kumar, et al., “State of the Economy,” Reserve Bank of India, *RBI Bulletin* (January 2023), <https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/01ART1901202380BC01A60B5943FB90C180B6B41FC29A.PDF>.
2. The US accounts for sending nearly \$20B annually to India. Soumasree Tewari and Ranjeeta Mishra, “Headwinds of COVID-19 and India’s Inward Remittances,” Reserve Bank of India, *RBI Bulletin* (July 2022), https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/05_AR16072022513FE9FB94B64F9E8D0F498A4C13F469.PDF.
3. Ambassador Katherine Tai, Indo-Pacific Economic Framework for Prosperity, <https://ustr.gov/ipef>.



US-India Energy Partnership

Finding Common Ground

Lydia Powell

BACKGROUND

India is the second-largest energy consumer and energy importer in the Indo-Pacific region. Growth in energy demand and imports has peaked in China, the world's largest energy consumer and importer. But growth in India's energy demand is expected to continue for the next three decades, making trade and cooperation with India in the energy sector extremely important. India's strategic vectors in the energy context are resilience or the ability to adapt to changing markets, independence or low reliance on external technologies and resources, and identity as a responsible, reliable regional and global partner. India's domestic goals in the energy sector, including self-reliance for strategic autonomy, economic wealth maximization for material power projection, and social justice for the provision of affordable energy, temper its strategic vectors. The success of India's energy partnerships with the US, like those with countries on every continent, have depended on the bilateral relationship promoting India's strategic agenda without compromising its domestic goals.

AID AS THE MEANS TO ENERGY COOPERATION

In the 1980s and early 1990s, India's energy production and distribution assets were mostly government-owned, and energy prices were strictly regulated. There was little scope for external intervention, and India-US energy partnerships consisted predominantly of aid-driven technical assistance. In the 1980s, the United States Agency for International Development (USAID) supported installation of coal washeries in Dipika and Korba, which paved the way for adoption of cyclone washers for high-ash non-coking coal in India.¹ The underlying logic for the US was that improvement in Indian coal quality would reduce pollution and promote the use of steam turbines manufactured by US companies. But coal washing did not take off in India, partly because of its impact on affordability of electricity. India continued to employ domestically manufactured turbines that were designed to use its own high-ash coal.

After economic reforms were initiated in the 1990s, USAID continued to channel aid to programs for improving energy efficiency. Some of the energy initiatives between the government of India and USAID created lasting efficiency improvements in energy generation, such as the 1995 program to reduce greenhouse gas emissions released per unit of power generated from coal-based power plants, and to encourage the use of biomass fuel from the sugarcane industry.² Today, power plants of the National Thermal Power Corporation, which was the Indian counterpart in the program, are among the most efficient in India. The US-India Bilateral Project initiated in 2000 for energy conservation and commercialization (ECO) helped set up the Bureau of Energy Efficiency (BEE), to implement the country's Energy Conservation Act of 2001. BEE is now the leading energy efficiency and decarbonization program in India.

The Distribution Reform, Upgrades, and Management (DRUM) program was launched in 2004 after India enacted the Electricity Act 2003 (EA 2003) to deregulate and reform the power sector.³ The partnership between the Indian Ministry of Power and USAID under DRUM aimed to accelerate power distribution reforms in India, but the program had limited success. USAID's failure to grasp the difficulty of increasing electricity prices in India, and the political economy behind it, undermined the initiative. Offers of free or subsidized electricity are instruments of socioeconomic and political transformation in India, and discounts in electricity tariffs feature in election manifestos even today.

Aid was the primary instrument of USAID-supported programs, but the end was trade, as most of the programs were tailored to move energy technologies to the marketplace and commercialize market-driven energy products, services, and technologies. The trade gains for the US were less than those for India. Following implementation of EA 2003, power generation was opened to the private sector and foreign direct investment, but American companies were outcompeted by companies from developing countries, including China, in supplying plants and equipment to private power generators. For India, the gains were significant, though unanticipated. The BEE is now one of the most important institutions in promoting efficiency of energy use and in mediating reduction in the carbon-emission intensity of India's economy. Reducing carbon intensity of emissions by 45 percent from 2005 levels by 2030 is among three of India's quantitative targets in its upgraded nationally determined contribution (NDC) to the Paris agreement on climate change. India also seeks to increase cumulative installed capacity for power generation from nonfossil fuels to 50 percent and create additional carbon sinks of three billion to five billion tons of CO₂ equivalent through additional forest and tree cover.

DIPLOMACY AS THE MEANS TO ENERGY TRADE

Since 1963, when India and the US signed the peaceful nuclear energy cooperation agreement, the two countries have engaged in civil nuclear cooperation continuously, except for two interruptions by sanctions when India tested explosive nuclear devices. In 2005, India and the US signed the civil nuclear cooperation initiative, a framework that lifted the three-decade-old US moratorium on nuclear energy trade with India. Then, in

2008, a landmark nuclear cooperation agreement was signed. Civil nuclear cooperation has continued to feature in all India-US energy partnership agreements since then.⁴

Nuclear energy should be central to energy cooperation between India and the US, but the partnership has not delivered anticipated gains. The growth rate of nuclear power generation capacity in India was lower after signing the nuclear agreement with the US, though capacity utilization improved as India was able to access the international market for nuclear fuel. US nuclear companies, for their part, are unable to invest in India because of a fundamental incompatibility between international conventions and India's civil liability law.

In contrast, globally traded energy commodities like oil and gas, of which the US is among the largest producers, have yielded to US diplomacy. By the late 2000s, India emerged as the third-largest consumer of energy after China and the US as well as the third-largest importer of oil. Oil and gas became a part of the US-India energy dialogue launched in 2005 to strengthen energy security and promote stable energy markets. In 2014, the US became a net exporter of natural gas, and it capitalized on India's aspiration to increase the share of natural gas from about 6 percent of its primary energy basket to over 15 percent by 2030.

The market mediates liquified natural gas (LNG) purchases on commercial terms, but competition from LNG exporters in the Middle East and Africa, two of India's largest sources of LNG, made US energy diplomacy in the late 2010s vital in securing long-term gas-supply contracts. Today, the US is India's third-largest LNG supplier after the Middle East and Africa. The US became a net oil exporter in 2018 and in just four years it emerged as the fourth-largest source of crude oil supply to India, displacing veteran suppliers like Iran, Venezuela, and the United Arab Emirates.⁵ Though sanctions against Iran and Venezuela helped to make this possible, India would have easily found alternative suppliers closer to home but for US energy diplomacy that successfully gained market share in the growing Indian market for crude oil. The decision to accommodate US crude gains significance given the fact that India is an extremely price-sensitive oil market and US crude is expensive. In general, decisions on crude oil purchases are influenced more by refinery-level economics than by state-level geopolitics, which explains India's ongoing purchases of Russian oil at a discount of over \$30/barrel. Affordable crude controls inflation and protects the poor, whose per-capita incomes are about a thirtieth of that of the US.⁶

In the 2020s, India-US partnerships are more likely to pivot around renewable energy (RE) for decarbonizing the energy sector to address the challenge of climate change. In this context, the US-India Partnership to Advance Clean Energy (PACE), signed in 2009 for research and deployment of RE, gains significance.⁷ The goals of the PACE initiative are aligned to support India's ambitious RE capacity target of 175 GW by 2022. So far, overseas investment in RE capacity growth in India comprises less than 20 percent of total investment, and the US share is a small part of it.

RE has shifted the strategic advantage from ownership of concentrated energy stocks such as coal, oil, and gas to technologies that can harness dispersed solar, wind, and other renewable forms of energy. In this regard, the US holds a significant advantage, as it was the second-largest RE patent holder, after Japan, in 2010–19.⁸ China’s dominance in the RE supply chain shows that technological advantage must be combined with manufacturing prowess to achieve cost-reducing scale advantages. Policies that stimulated market growth, primarily economies of scale from China’s sprawling manufacturing base for solar panels, accounted for a greater share of the exponential decline in cost—better than 97 percent over three decades—than government-funded research and development. India presents a unique opportunity to the US as a potential industrial base for the low-cost production of fuels such as green hydrogen, which is essential for decarbonizing heavy industry. Unlike the solar and battery manufacture sectors dominated by China, there is no incumbent leader in green hydrogen manufacture, which makes India very attractive for US investment. US policy needs to look beyond private sector equity investments in the clean energy sector in India. Equity investments invariably focus on economic returns. But if the goal is to build supply chains to challenge China, long-term strategies that include financial investment, technology support, and state-level coordination are necessary.

Deeper US engagement in India’s RE sector is unlikely to have a downside, as climate change is equalizing vulnerability and forcing a convergence of interests of rich and poor countries. The partnership will be the first to acknowledge that climate change may not remain subject to the prevailing geopolitical winds, driven by security and trade concerns, but will become a force that actively shapes geopolitics.

NOTES

1. Ipshita Nandi Banerjee, “USAID-India Partnership in Energy: An Evolution Story,” *Powerline*, November 4, 2022, <https://powerline.net.in/2022/11/04/usaaid-india-partnership-in-energy-an-evolution-story>.
2. “USAID-Government of India Clean Energy Partnership,” USAID report, reprinted 2013, https://pdf.usaid.gov/pdf_docs/PA00JRNB.pdf.
3. Kevin Warr, Michael Gaffen, Arunachalam Rajagopal, and Meenu Mishra, “Evaluation of DRUM and WENEXA,” USAID, April 2011, https://pdf.usaid.gov/pdf_docs/PDACR528.pdf.
4. Dinshaw Mistry, *The US-India Nuclear Agreement: Diplomacy and Domestic Politics* (Cambridge: Cambridge University Press, 2014).
5. From the data on the website of the Directorate General of Foreign Trade, <https://commerce.gov.in/about-us/attached-offices/directorate-general-of-foreign-trade>.
6. World Bank Database, “Per Capita GDP (Current US\$),” <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD>.
7. Jason Donovan, “The Path to PACE: How US Diplomacy Accelerated Clean Energy Cooperation with India,” *Foreign Service Journal*, July-August 2017, <https://afsa.org/path-pace-how-us-diplomacy-accelerated-clean-energy-cooperation-india>.
8. James Nurton, “Patenting Trends in Renewable Energy,” *WIPO Magazine*, March 2020, https://www.wipo.int/wipo_magazine/en/2020/01/article_0008.html.



US-India Energy Cooperation

Keeping Gas on the Agenda

David Fedor

Topline statistics suggest that natural gas is a marginal but growing energy source in India; about 6 percent of India's power generation today comes from natural gas, and current government plans target a level of 15 percent by 2030.¹ Meanwhile, roughly 10 percent of India's industry sector direct energy use—a key future use case—is now met through natural gas, up from just 2 percent in 2010.² In addition, half of India's gas supply is now imported through its six liquefied natural gas (LNG) import terminals, making it the fourth-largest LNG buyer globally, and four more terminals are currently under construction to expand capacity and access.³ Meanwhile, India's domestic gas pipeline network has grown by half within the past decade, from approximately 14,000 kilometers (8,700 miles) in 2014 to 22,000 kilometers (13,700 miles) in 2022.⁴

In parallel, however, these trends are undercut by a sense of ambivalence toward gas's role in India's rapidly expanding energy system. While dispatchable natural gas-fired power could be well suited as a complement to India's breakneck growth in intermittent renewable power, today a number of such plants—approximately half of the installed capacity of twenty-five gigawatts, many of them privately owned—sit idle given the cost of gas compared to coal. Although fuel switching from coal to natural gas is arguably the most cost-effective medium-term method for reducing both local pollution and carbon emissions for industrial sector heat needs—and India is already the world's third-largest producer of steel and second-largest producer of cement—a still quite restricted gas pipeline network limits industrial access. Perhaps half of India's modern steel plants, for example, are located in the coal-rich inland or eastern regions, while LNG terminals and distribution networks are clustered in the west.⁵

And while India arguably has untapped economic natural gas resources both domestically (e.g., the Bay of Bengal) and among near neighbors at pipeline distances—including Bangladesh or even Iran—India's domestic gas production, onshore and off, is flat or declining and has suffered from years of underinvestment stemming in large part from an artificially low domestic gas pricing mechanism. There are no plans for pipeline importation, either,

which could offer the next best chance for new gas supplies at prices competitive with coal. This domestic underinvestment has benefitted LNG imports, but LNG's even higher cost has in turn pigeonholed the fuel.⁶

Gas sits in limbo within a “smile curve” energy strategy, which aims to meet massive supply and demand growth given a rapidly growing Indian middle class. At one end of that curve lie aggressive domestic deployment plans for five hundred gigawatts capacity of zero-carbon renewables or nuclear by 2030, and subsidies for the domestic production of green hydrogen, produced through electrolysis, at about five times the cost of natural gas, presumably for industrial use once scaled. At the other end of the curve, coal remains the dominant fuel, and growth in demand is likely to continue for another decade. This is quite understandable, given the price sensitivity of the sector and the importance of meeting growth in India's electricity consumption

But India is not alone. In the United States, too, moderately clean natural gas struggles with a similar policy contradiction, despite the United States' considerable resource endowment and huge growth in production and consumption over the past fifteen years. On one hand this continues to enable the country's economic competitiveness as the marginal price-setter on most regional electric grids, displacing coal. It also serves as a key input to industries, including its enabling of \$100 billion in chemicals manufacturing since 2010.⁷ The US is currently the world's largest LNG exporter and in 2022 more than doubled exports to Europe due to war shortages. On the other hand, gas transmission and distribution face increasing public pressure from US civil society and environmental groups; US officials press for policies to limit multilateral development bank funding for gas infrastructure projects; and the US diplomatic voice on the fuel has been too quiet in key regional diplomatic fora, such as the Quadrilateral Security Dialogue (the Quad), favoring instead zero-carbon technologies.

Any sustainable energy strategy must balance three concerns: (1) the economics and affordability of energy and fuel choices; (2) the attendant environmental impacts; and (3) the security and reliability of the system. The role of natural gas in India is arguably held back today by concerns about the first leg of that stool—affordability—while concerns today in the United States hinge on the second—the environment (mostly climate). And particularly following the disruptions in the global gas market of 2022, the two countries arguably should have new, shared interests in strengthening the third leg of regional gas security.

None of these three concerns as they pertain to gas are easily solved, and policy priorities in both countries may simply be to focus efforts and investment elsewhere, rather than taking on these challenges. And the United States and India have shared a range of historical experiences on commercial oil and gas investment. But given the need to balance each leg of the energy policy stool, and the uneven progress of credible substitute energy technologies, the key future role that will be played by gas is underappreciated in both countries. Both would be well served by a more serious policy focus on the fuel today.

Given current trends, if the United States and India were to actively use their common underlying interest in gas as a platform for further bilateral engagement, what are some collective steps that they might take to mitigate concerns across each of these three areas and help keep a place for this flexible, if imperfect, fuel on their shared energy agenda?

GAS AFFORDABILITY

Globally, since the Russian invasion of Ukraine and ensuing pipeline shutdowns, the natural gas market has entered a period of chaos akin to what the international oil market faced during the Arab oil embargoes of the 1970s. That market is likely to remain tight over the next three to five years, with associated sharp swings in prices. Asia today represents about four-fifths of global LNG demand but less than two-fifths of global production. And as market attention turns toward European buyers with high willingness to pay following Russian supply interruptions, there is significant interest from Indo-Pacific countries in ensuring affordable access to their traditional supplies, and in strengthening the regional supply chain to be more resilient against the next global gas crisis. In 2022, for example, Asian LNG cargoes were diverted to Europe as spot prices soared and the fuel became uncompetitive with domestic resources.⁸ LNG imports through midyear were down 16 percent in India, 21 percent in China, and 15 percent in Pakistan.⁹

The most important solution to gas affordability in India would be to modernize pricing regulation through measures such as the 2014 reforms, which linked Indian domestic gas prices to an international basket of extremely efficient domestic gas producers including the United States, Canada, Russia, and Europe. This effectively discouraged further investment in domestic production. While India may not have the apparent overall gas resource that was unlocked by fracking in the United States, a similar deregulatory approach that encourages creativity and investment by numerous upstream players could be transformational. The underperformance of Indian domestic gas production compared to expectations is more about policy than about geology. And with reforms, US technologies and oilfield service firms might play a larger role in the economic development of this resource.

Separately, although India has made laudable past efforts toward pipeline gas imports from its neighbors, all failed because of complex domestic and regional politics. Is it time to revisit such efforts with the goal of reducing the costs of India's gas imports—including the promising Myanmar-Bangladesh-India pipeline of the mid-2000s—which instead now flow to China, bypassing the Malacca Strait?¹⁰ With broader US-Myanmar relations at an apparent impasse, despite an ongoing interest in limiting China's growing influence in the country, India's engagement on such an effort may offer dividends.

Meanwhile, one way that the United States could unilaterally help on the global LNG affordability front, particularly in a world without Russian pipeline gas, is simply by growing the pie. While little more can be done in the short term, the United States has substantial headroom to increase natural gas production and LNG exports over the medium term. One industry

estimate, for example, suggests that the US Appalachian Marcellus Shale and the Permian Basin resources could support an additional fifty billion cubic feet per day over thirty years at a price of \$3.75 per mmbtu, for a roughly 50 percent total production increase.¹¹ US domestic permitting reform, underpinned by a social license to operate based upon improved environmental performance, and global demand certainty amidst a market moving toward greater liquidity rather than fixed contracts, would be a key enabler of such a production increase.

GAS AND THE ENVIRONMENT

While coal-to-gas fuel switching in the United States power sector over the past fifteen years—roughly 49 percent of power generation from coal and 20 percent from gas in 2007 to 40 percent gas and 20 percent coal in 2022—has been the largest source of the country’s carbon emissions reductions, gas’s environmental footprint in the United States has come under increasing scrutiny.¹² Methane leakage from gas systems across the upstream, midstream, and downstream levels has drawn particular attention.¹³ But a combination of new technologies such as remote sensors, and business models including data fusion services, now offer the potential for a more transparent “well-to-flame” regional LNG supply chain. This could make for a particularly compelling environmental argument where it could be shown that a cleaner US gas supply chain was displacing competing gas imports from comparatively methane-emission-intensive Russian or Iranian supplies.¹⁴

India could work with the United States to simultaneously address leakage in US upstream operations with leak detection and efficiency of use in the downstream portions of the gas system to create a trusted, clean LNG supply chain. Quad partners Japan (a major gas buyer) and Australia (a major gas seller) could also join. Helpfully, this potential area of cooperation has begun to receive attention in both multilateral fora, such as the May 2022 Quad Joint Leaders’ Statement in Tokyo, and bilateral contexts, such as the US-India Strategic Clean Energy Partnership’s responsible oil and gas pillar, implemented through the US Department of Energy.¹⁵ In doing so, the US side should be sensitive to the different priorities that US and Indian gas supply chain participants and regulators may place on emissions performance versus cost.

Combining such efforts with an improved ability to clearly show that US gas was displacing coal use for power generation or industry among buyers abroad, such as India, would ultimately help support industry’s social license to operate in the United States and to invest in globally needed new export infrastructure. Better comprehensive Indian energy data here might support that argument. India today lacks a centralized energy statistical agency akin to the US Department of Energy’s Energy Information Administration, instead relying on a patchwork of databases of varying quality and assumptions, maintained by a variety of responsible ministries. The United States and India could jointly work to overcome the barriers to creating a modern Indian Energy Information Administration that could improve transparency and be a foundation for further energy policy analysis by a variety of skilled Indian domestic civil society organizations that have become internationally active in this area.¹⁶

REGIONAL GAS SECURITY

More stockpiling and strategic reserves could help mitigate the risks of future gas supply disruptions.¹⁷ India imports 80 percent of its oil and has a strategic petroleum reserve representing about ten days of current consumption.¹⁸ But on natural gas, where imports represent just over half of total supply, India lacks a strategic reserve, though in fall of 2022 it announced the initial development of one.¹⁹ More robust strategic reserves could serve both India's own needs in case of geopolitical shocks and the broader functioning of the global market, including emerging importers in the Global South.

While natural gas storage can be five to ten times more expensive than storing oil, even a modest degree of gas storage can help with seasonal energy demand needs and serve as a hedge against pipeline or LNG import disruption. Physical storage can also help to facilitate development of a gas trading hub, which India lacks, and to buffer market prices. It could therefore be seen as a step toward gas tariff reforms. One area where the United States may be helpful here is in sharing its substantial experience and expertise in underground gas storage, which can be significantly cheaper than the LNG tankerage more typically used in Asia. Whereas it is common to have multimonth underground gas storage for seasonal heating needs in the United States or Europe, Asia represents only about 1 percent of the world's total geologic storage.²⁰ Typically, underground gas storage relies on the use of depleted oil or gas reservoirs, but gas can also be stored in aquifers or salt caverns.²¹ The United States and India should cooperate to this end on geologic mapping, on exploring offshore storage potential, or on joint research on the use of less conventional storage methods for gas, such as abandoned mine shafts.

Beyond domestic capabilities, the United States and India could also work together to establish a joint regional gas storage, data, and coordinated drawdown mechanism, along the lines of the oil stockpiling and coordination standards created under the Organisation for Economic Co-operation and Development's International Energy Agency (IEA) in the 1970s. No such multilateral agreement for gas currently exists today, in the Indo-Pacific or elsewhere. This could include joint standards for natural gas storage, where there is a particular collective-action benefit, and more work on regional gas market data sharing among interested partners.

Finally, as risk profiles shift from a traditional concern with geopolitical disruption among fuel suppliers out of the region (e.g., the Middle East) to potential disruptions within the Indo-Pacific region itself, the United States and India could fruitfully cooperate on the security of basin LNG shipping logistics and crisis planning. This includes more attention to who owns ships, who owns ports, and who insures them, to understand how any player could be diplomatically pressured in a conflict. It could also include joint crisis planning and tabletop exercises on LNG or pipeline disruptions. This could involve the Quad countries, which include both major regional buyers and sellers of LNG, and their potential interaction and impacts on regional economies.

In sum, a future role for gas within India's energy transformation is underappreciated. And the United States, despite its own somewhat contradictory stance toward the fuel, has something to bring to the table in this process, should it choose to do so as part of its diplomatic and global security policy portfolio. Energy is an underused platform for broader US-India engagement, with a rich menu of options on it to collectively explore. Gas should be on that agenda.

NOTES

1. US Energy Information Administration (EIA), "India Executive Summary," last modified November 2022, <https://www.eia.gov/international/analysis/country/IND>.
2. International Energy Agency (IEA), 2023, "India Energy Outlook 2021," last modified February 2021, <https://www.iea.org/reports/india-energy-outlook-2021>.
3. Victoria Zaretskaya, "Growth in India's LNG Imports Will Depend on Completion of Connecting Pipelines," EIA, last modified May 2020, <https://www.eia.gov/todayinenergy/detail.php?id=43655>.
4. Niranjana K. Athavale, "India Energy Week 2023 in Bengaluru: Country Beckons Investors with Opportunities in Energy Sector, Says PM Narendra Modi," Bengaluru News, *Times of India*, February 6, 2023, <https://timesofindia.indiatimes.com/city/bengaluru/india-beckons-investors-with-opportunities-in-energy-sector-says-pm-narendra-modi-in-bengaluru/articleshow/97642974.cms>.
5. See, for example, Matthew Piotrowski and George Frampton, "India's Opportunity for Steel Decarbonization," Atlantic Council, December 20, 2022, <https://www.atlanticcouncil.org/blogs/energysource/indias-opportunity-for-steel-decarbonization>. The cabinet of Prime Minister Modi has announced a pipeline expansion of more than 50 percent to reach 35,000 km (21,200 miles) over the next five years, though uneven state tariffs continue to be a barrier to potential off-takers.
6. In the chaos of the 2022 global gas market, India's LNG import terminal capacity utilization was less than half, as cargos were diverted to other buyers globally. Therese Robinson, "India Plans to Triple Clean Power Generation as High Prices Put Natural Gas Out of Reach," *Natural Gas Intelligence*, March 15, 2023, <https://www.naturalgasintel.com/india-plans-to-triple-clean-power-generation-as-high-prices-put-natural-gas-out-of-reach>.
7. Jennifer Scott, "US Chemical Industry Investment Linked to Shale Gas Tops \$200 Billion," American Chemistry Council, May 16, 2022, <https://www.americanchemistry.com/chemistry-in-america/news-trends/press-release/2022/us-chemical-industry-investment-linked-to-shale-gas-tops-200-billion>.
8. Sha Hua, "China Is Rerouting US Liquefied Natural Gas to Europe at a Big Profit," *Wall Street Journal*, October 3, 2022, <https://www.wsj.com/articles/china-is-rerouting-u-s-liquefied-natural-gas-to-europe-at-a-big-profit-11664772384>.
9. Saeed Shah and Anna Hirtenstein, "Europe Scoops Up LNG, Choking Off Power Supplies in Poorer Nations," *Wall Street Journal*, July 7, 2022, <https://www.wsj.com/articles/europe-scoops-up-lng-choking-off-power-supplies-in-poorer-nations-11657212688>.
10. Mahendra P. Lama, "Opinion: How India Lost a Gas Pipeline to China," *Kathmandu Post*, July 14, 2020, <https://kathmandupost.com/columns/2020/07/14/how-india-lost-a-gas-pipeline-to-china>.
11. EQT Resources, personal communication, October 2022.
12. EIA, "Annual Energy Review 2007 (Technical Report)," US Department of Energy, Office of Scientific and Technical Information, last modified June 1, 2008, <https://www.osti.gov/biblio/1212314>; EIA, "Frequently Asked Questions (FAQs)," last modified March 4, 2022, <https://www.eia.gov/tools/faqs/faq.php?id=427&t=3>.
13. Anita L. Ganesan, Stefan Schwietzke, Benjamin Poulter, Tim Arnold, Xin Lan, Matt Rigby, Felix R. Vogel, et al., "Advancing Scientific Understanding of the Global Methane Budget in Support of the Paris Agreement," *Global Biogeochemical Cycles* 33, no. 12 (December 2019): 1475-512, <https://doi.org/10.1029/2018gb006065>.

14. See IEA, “Total Methane Emissions and Methane Intensity of Production in Selected Oil and Gas Producers in 2020—Charts—Data & Statistics,” IEA, last modified 2020, <https://www.iea.org/data-and-statistics/charts/total-methane-emissions-and-methane-intensity-of-production-in-selected-oil-and-gas-producers-in-2020>.
15. Respectively: White House, “Quad Joint Leaders’ Statement,” May 24, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/24/quad-joint-leaders-statement>; Department of Energy, “US-India Strategic Clean Energy Partnership Responsible Oil and Gas Pillar,” October 2022, https://www.energy.gov/sites/default/files/2022-10/Oil%20and%20Gas%20Draft_FINAL.pdf.
16. As constructively proposed in Rahul Tongia, Varun Rai, and Gireesh Shrimali, “India Needs Agency for Energy Data,” *Nature* 541, no. 7635 (January 5, 2017), <https://www.nature.com/articles/541030d>.
17. See James O. Ellis and David Fedor, “Building Resiliency in the Indo-Pacific LNG Basin,” Hoover Institution, forthcoming (2023), for more details on these proposals in a regional context.
18. New investment is set to increase the reserve to twenty days’ consumption over the coming years, but even that compares poorly to OECD International Energy Agency (IEA) strategic petroleum stockpiling standards of ninety days net imports.
19. As of 2020. See Business Standard Web Team, “India Plans to Set Up Strategic Gas Reserve Amid Global Energy Crisis,” *Business Standard*, September 22, 2022, https://www.business-standard.com/article/economy-policy/india-plans-to-set-up-strategic-gas-reserve-amid-global-energy-crisis-122092200509_1.html.
20. China has recently begun to develop underground gas storage capacity; more than about a dozen wells now represent 4 percent of annual demand. Shi Weijun, “China’s Storage Shortage,” *Natural Gas World*, February 21, 2021, <https://www.naturalgasworld.com/chinas-storage-shortage-ngw-magazine-85170>.
21. IGU, “ABCs of Underground Gas Storage,” http://members.igu.org/html/wgc2003/WGC_pdffiles/UGS.pdf.



This discussion paper reflects broad participant input through the January 2023 Observer Research Foundation–Hoover Institution Indo-Pacific Dialogue, as well as a February 2023 Hoover–CEEW energy policy roundtable and the 2023 Tata–Hoover US–India Symposium, both held in Delhi. The research assistance of Raina Talwar Bhatia at Stanford University is also gratefully acknowledged.



US-India Technology Sharing

Rajeswari Rajagopalan and Trisha Ray

As great power competition intensifies in the Indo-Pacific, technology has become one of its key components. It goes without saying that the primary tech challenges facing India and the United States in the Indo-Pacific come from China. Several decades of intense economic linkages have led to significant technology transfers that have also partly contributed to China's growing technological prowess and thus intensified the competition between China and the United States. China's growing technological might is being leveraged to undermine and threaten not just the United States or the West but also China's neighbors in the Indo-Pacific. In response, the US and its partners in the Quad have identified technology as an important area for cooperation. Though they do not specifically identify China, the kinds of initiatives that the Quad countries individually and collectively are undertaking are designed to counter China's leveraging of technology over others. Nevertheless, there is still significant room for further cooperation between the US and India, in particular to deal with the emerging technological challenges that China poses. In this essay, we outline both the challenges and the opportunities for enhanced cooperation between the United States and India in this area.

THE CHALLENGE

China's growth over the last four decades has been impressive, but as its wealth has grown, China has sought to challenge the United States and the liberal international order as well as its domination in the Indo-Pacific. The integration of China into the global economy and its rise as a manufacturing power has also given China access to advanced technologies that it is now employing in its pursuit of regional hegemony and global parity with the United States. The technology challenge from China has evolved in the last two years. The initial challenge came from state-supported entities like Huawei that sought to corner the 5G telecom market. State support allowed Huawei to sell its 5G technology at highly competitive rates, giving it a significant advantage and making it an attractive partner for many countries, especially in the developing world. The threat

this posed to telecommunication security led to actions by many countries, including India and the US, to limit Huawei's entry into their telecommunication systems.

With support from the Chinese state, Huawei has been able to develop 5G technology and sell it far more cheaply than its competitors. But Huawei's connection to the Chinese state also makes any telecommunication network that uses Huawei technology potentially vulnerable to China. Another aspect to using Chinese apps and telecom service providers is that it allows China to control access to information as well as engage in disinformation campaigns. India and the US cooperated in highlighting the threat from Huawei to other countries, thus significantly limiting Huawei's spread. This was an early success, though not a complete one. In the last few years, the threat has expanded when compared to other areas, from platforms and software to critical minerals and semi-conductors. The rise of Chinese apps like TikTok, for instance, is particularly pernicious because they lead to transfer of significant personal data from ordinary citizens to servers in China. Moreover, TikTok has become a source of news and information controlled by China's state authorities, thus posing a danger to open societies everywhere.

Possibly the most pertinent rising threat today comes from China's dominance in semiconductor production. Currently, although China has advanced in many areas through careful planning and concerted action, it still has not managed to control all parts of the semiconductor supply chain; the US and its partners, such as Taiwan, Japan, South Korea, and the Netherlands, still control the highest reaches of technology in semiconductor manufacturing. However, China is pushing determinedly in this direction, because of the importance of semiconductors not only to civilian applications but even more critically in military systems. If the current trends continue, China could hold the largest share of semiconductor manufacturing by the end of this decade. But it also needs to be noted that China is still not capable of manufacturing cutting-edge computer chips and continues to rely on external supply. Any Chinese success in capturing the semiconductor manufacturing industry would pose major challenges, putting at risk the military and technological power of other countries. China has some capacities in this regard, but it cannot be expected to produce high-end chips that use very advanced semiconductor nodes. For example, the US produces 4 nanometer (nm) chips while China is making 12 nm chips.¹

Finally, it is critical to acknowledge that technology trends and threats cannot be viewed in isolation, especially in the complex security and geopolitical environment of the Indo-Pacific. In this region, for instance, cyber-enabled threats have compounded "traditional" security threats, such as terrorism, contested borders, and maritime disputes. In conjunction with these regional tensions, nonstate actors, including those sponsored by states, operate below the threshold of outright conflict—targeting institutions, sowing distrust in institutions, and inflicting economic and social damage. Between 2020 and 2021, the Indo-Pacific region witnessed a 168 percent increase in cyber-attacks, with health systems and the financial sector being the worst hit.² Heightened tensions with China have contributed to hybrid threats. In 2020–21, against the backdrop of Sino-Indian border skirmishes in Galwan, Chinese advanced persistent threat (APT)

actors attacked India's transportation sector, as well as the electricity grid of the state of Maharashtra.³ Chinese APT actors have similarly conducted multiyear espionage operations in relation to the South China Sea dispute, targeting governments in Southeast Asia, as well as Australian defense contractors, manufacturers, universities, government agencies, legal firms, and other foreign companies.⁴ Other aspects of hybrid operations too have moved online, leveraging targeted advertising on social media. Furthermore, organized groups can spread disinformation and misleading narratives and can target individuals and communities using tactics such as mass-reporting, trolling, and other forms of online harassment. We still have a very limited picture of the true growth and scale of these types of operations, especially outside the Anglosphere, given that platforms (and funders) have only begun to recognize this phenomenon relatively recently.⁵

AVENUES FOR COOPERATION

Though India and the United States have taken steps to counter these challenges, most of their efforts have been unilateral. For example, India was one of the earlier countries to ban various Chinese apps, including TikTok, in the immediate aftermath of the Galwan River clash in 2020. Though this may have been done partly to assuage domestic public opinion in India following Chinese aggression in Ladakh, it also had important security benefits that are only now being realized. Over the last couple of years, many countries have recognized the threats posed by seemingly innocent Chinese apps, making the Indian action quite prescient. Many of these apps allow access to the devices where they are installed, potentially making the devices accessible to Chinese state security agencies and compromising their information security. Similarly, India has acted decisively to stem Chinese control over India's 5G telecommunication network. Though Indian concerns about Huawei predate the Galwan crisis, it also helped provide the impetus for banning Huawei from India's 5G service network. India also went ahead with additional measures to control Chinese involvement in various aspects of India's infrastructure including in telecommunications. These were effective measures, but they were measures that India took unilaterally.

Similarly, the US has undertaken some unilateral actions, though it has not gone as far as India. For example, despite growing security concerns, the US still has not banned Chinese apps like TikTok, but it has taken multiple actions to restrict China's access to technology. This includes the CHIPS and Science Act as well as the new round of technology controls to prevent the flow of high technology semiconductors and semiconductor manufacturing equipment to China.

The absence of US-India joint actions leaves considerable scope for bilateral cooperation in this space. The first and the most basic measure would be to engage in more intense discussions about cooperating in areas where India and the US have taken individual actions. Unilateral actions are less effective than joint actions by multiple countries. Especially considering that both India and the US broadly agree on the threat they face, initiating dialogue about how to respond to these threats is critical. For example,

the US could join India in banning Chinese apps, and it could prevent China from dominating the semiconductor industry by involving India in such policies as “friendshoring.” Friendshoring could include helping India design and manufacture various systems and technologies that are currently procured from China. In fact, US Commerce Secretary Gina Raimondo, after meeting with Indian Commerce Minister Piyush Goyal, suggested that “India has an opportunity to become a key supplier in the entire electronics supply chain and not just semi-conductors.”⁶ She clarified, however, that the US is “not looking for technology decoupling from China,” which is a difficult goal to achieve, at least in the short term. But given India’s technological challenges in these areas, this would require the US to provide the technology that is required for manufacturing in India.

Another serious threat is China’s use of cyberwarfare. India and the US have been the most affected in terms of the number of cyberattacks worldwide. While not all attacks emanated from China, a large number of them did. The United States’ “defend forward” cyber strategy aims to “intercept and halt cyber threats” at their source, including working with the private sector, allies, and partners.⁷ India’s cyber posture is primarily defensive, although it apparently possesses “modest” offensive cyber capabilities, primarily directed against Pakistan, but with a growing focus on China.⁸ There are a handful of Indian APT actors operating at varying levels of sophistication, employing measures from phishing to leveraging zero-day exploits. There is a need to develop a shared understanding in containing malevolent actors like China that carry out cyberattacks on critical infrastructure. This cooperation can extend to retaliatory action as a means of deterrence at a later stage. A shared understanding can begin with consultations and intelligence sharing about China’s cyber activities, joint investigation of attacks, and sharing of measures to protect cyber and other critical infrastructure. This should also include a common understanding about what might be considered serious attacks that require retaliation and whether such retaliation should take place jointly or by the affected parties. Such retaliation could include publicizing details of Chinese cyberattacks and a common and public commitment to respond if such attacks take place. A cyber deterrence strategy should include not just retaliation to Chinese cyberattacks, but also publicized cooperative action against any kind of cyberattacks, including private nonstate actors from any part of the world. This would signal to China both Indian and American capacity to retaliate, as well as their commitment to cooperate in detecting and responding to cyber dangers.

NOTES

1. China claims that it is making 7 nm and more advanced 5 nm chips despite being denied certain critical technologies such as extreme ultraviolet (EUV) equipment. Scott Foster, “China on Course to Elude US Chip-Making Equipment Bans,” *Asia Times*, October 3, 2022, <https://asiatimes.com/2022/10/china-on-course-to-elude-us-chip-making-equipment-bans>.
2. “Check Point Research: Asia Pacific Experiencing a 168% Year on Year Increase in Cyberattacks in May 2021,” Check Point, May 27, 2021, <https://blog.checkpoint.com/2021/05/27/check-point-research-asia-pacific-experiencing-a-168-year-on-year-increase-in-cyberattacks-in-may-2021>; “X-Force Threat Intelligence Index 2021,” IBM Security, February 2021,

https://www.ibm.com/downloads/cas/AWJ3PE1M?mhsrc=ibmsearch_a&mhq=X-Force%20Threat%20Intelligence%20Index%202021; "X-Force Threat Intelligence Index 2022," IBM Security, February 2022, <https://www.ibm.com/downloads/cas/ADLMYLAZ>.

3. Insikt Group, "China-Linked Group RedEcho Targets the Indian Power Sector amid Heightened Border Tensions," Recorded Future, February 28, 2021, <https://www.recordedfuture.com/redecho-targeting-indian-power-sector>; Press Trust of India, "Highways Ministry Asks NHAI, Automakers to Tighten IT Security after Cyber Attack Threats," *Tribune India*, March 21, 2021, <https://www.tribuneindia.com/news/nation/highways-ministry-asks-nhai-automakers-to-tighten-it-security-after-cyber-attack-threats-228534>.

4. "SharpPanda: Chinese APT Group Targets Southeast Asian Government with Previously Unknown Backdoor," Check Point Research, June 3, 2021, <https://research.checkpoint.com/2021/chinese-apt-group-targets-southeast-asian-government-with-previously-unknown-backdoor>; Michael Raggi and Sveva Scenarelli, "Rising Tide: Chasing the Currents of Espionage in the South China Sea," Proofpoint, August 30, 2022, <https://www.proofpoint.com/us/blog/threat-insight/chasing-currents-espionage-south-china-sea>.

5. Emma Briant, "The Grim Consequences of a Misleading Study on Disinformation," *Wired*, February 18, 2021, <https://www.wired.com/story/opinion-the-grim-consequences-of-a-misleading-study-on-disinformation>.

6. Monika Yadav, "India Can Be Key Electronics Supplier," *New Indian Express*, March 11, 2023, <https://www.newindianexpress.com/business/2023/mar/11/india-can-be-key-electronics-supplier-2555041.html>.

7. Department of Defense Cyber Strategy, September 2018, https://media.defense.gov/2018/Sep/18/2002041658/-1/-1/1/CYBER_STRATEGY_SUMMARY_FINAL.PDF.

8. Julia Voo, Irfan Hemani, and Daniel Cassidy, "National Cyber Power Index 2022," Belfer Center, Harvard Kennedy School, September 2022, https://www.belfercenter.org/sites/default/files/files/publication/CyberProject_National%20Cyber%20Power%20Index%202022_v3_220922.pdf.



US-India Defense Technology Cooperation

Vital, Not Inevitable

Joe Felter and Vikram J. Singh

For almost twenty years, defense cooperation between India and the United States has been on a steady upward trajectory. This is true across a range of measures, including military exercises: India does more with the United States than with any other country; defense trade has topped \$20 billion today; and critical enabling agreements have facilitated increased military cooperation on everything from communications to intelligence-sharing to logistics. Former Indian Defense Minister Nirmala Sitharaman accurately described US-Indian defense cooperation “as the most significant dimension of our strategic partnership and as a key driver of our overall bilateral relationship.”¹ Defense cooperation—and defense technology cooperation in particular—continues to be a positive driver in the US-India bilateral relationship today.

In 2023, the US-India defense partnership—built by leaders from across the political spectrum in both countries over twenty years—seems natural. Defense cooperation continues to be a driving force in strengthening the overall bilateral relationship, and leaders recognize that this robust partnership is vital to their own national security as well as to the security of the Indo-Pacific region. But US-India defense relations remain complicated, bespoke, and precarious. The success of this relationship never was, and still is not, inevitable.

In the timescale of global geopolitics, defense ties between the US and India transformed in the blink of an eye. The US sanctioned India for nuclear tests in 1998. Just a decade later, in 2008, the US Congress approved a nuclear deal with India that not only required changes to US law but also reshaped the entire global nuclear nonproliferation regime.² On the way to this acknowledgment of India as a nuclear weapons state outside the global Non-Proliferation Treaty, US President George W. Bush and Indian Prime Minister Manmohan Singh launched a ten-year defense cooperation

framework and a “global strategic partnership” in 2005. In 2016, President Obama and Prime Minister Modi launched a new framework uniquely tailored for India that designated India as a “Major Defense Partner,” making it eligible for technology sharing on par with US treaty allies. In 2018, the US Commerce Department under President Trump moved India to Strategic Trade Authorization Tier 1, granting broader exceptions for licensing of sensitive technology for India.³

The deepening of defense ties in the early 2000s foreshadowed the reconceptualization of the Asia-Pacific into the Indo-Pacific, an idea that grew from discussions of maritime security and was brought to the fore when Japanese Prime Minister Shinzo Abe delivered his pivotal “Confluence of the Two Seas” speech before the Parliament of India in 2007. Though he did not use the words “free and open Indo-Pacific,” Abe set the predicate for the contest now unfolding in the region with this vision of Indo-Japanese cooperation:

By Japan and India coming together in this way, this “broader Asia” will evolve into an immense network spanning the entirety of the Pacific Ocean, incorporating the United States of America and Australia. *Open and transparent, this network will allow people, goods, capital, and knowledge to flow freely* [emphasis added].⁴

Abe never mentioned China in the speech. The Quadrilateral Security Dialogue—the Quad—of Australia, India, Japan, and the United States, which has evolved into the most active head-of-state-level multilateral structure among democracies in the region, also frames a positive vision without much mention of China in official statements. But it is clear these nations believe the risk to the free flow of people, goods, capital, and knowledge—to the “free and open Indo-Pacific”—stems from choices that might be made by an assertive and revisionist China.

INDO-US DEFENSE TIES CENTRAL TO QUAD AND MULTILATERAL REGIONAL SECURITY COOPERATION

The Quad sets out to offer a positive agenda and alternatives to Chinese investment and technology in the region. It does not explicitly include security measures other than a Maritime Domain Awareness program focused on illegal and unregulated fishing. But for each of the four member countries, this is the positive side of the coin of deterrence. To be credible and viewed by states across the region as more than a discussion forum, it must be undergirded by sufficient military capacity and capability to ensure Chinese leaders calculate that it will be too costly to remake the region to China’s liking by military means. For each partner, the greatest concerns center on long-standing territorial and sovereignty disputes and growing Chinese technological and power projection capabilities on air, land, and sea, and in space and cyberspace that might prompt a Chinese misadventure and spark a war.

The Quad countries share this strategic view but find the challenge most acute where it impacts each of them most directly. For India, the central dispute is over the Line of Actual Control (LAC) with China and China's claims to the Indian state of Arunachal Pradesh. Clashes here in recent years have pushed Sino-Indian ties to historic lows. For Australia, the closest concerns are over Chinese assertiveness in the Pacific Islands and the maritime domain in the Indian Ocean. For Japan, the Senkaku Islands are the most acute issue with China. And for the United States, Taiwan takes center stage. Quad partners and countries across the region are concerned about China imposing its will on all the claimants to portions of the South China Sea. Can China be deterred from using force or economic coercion in all of these areas of friction?

When it comes to deterring China's worst possible courses of action, India's role is vital and a bit of a paradox. With a strong India on its western front, China faces far more complicated calculations about any military adventures elsewhere. India can hold at risk Chinese assets—land, air, and sea—and potentially take advantage of Chinese distraction to tip the balance along the LAC in its favor. India can constrain the flow of critical materiel through the Strait of Malacca. In order to play this deterrent role for its own national security interests, India requires rapid and robust growth in its economic, military, and diplomatic power. The United States and other Quad partners need this strong India to complicate Chinese planning against their own top areas of concern.

Yet India is unique in this partnership by virtue of being neither a US ally nor a developed economy. With a GDP of roughly \$2,000 per capita and persistent poverty, India can achieve what it needs—and what the US and its Quad partners seek—only with rapid economic growth and partnership. One critical variable that will have far-reaching impact on India's expanding role and position of prominence in the coming decades is the depth, breadth, and durability of its relationship with the United States, particularly a trusting partnership in the area of defense cooperation.

India's ability to deter and, if necessary, defeat threats from China (and Pakistan) and its role as a regional power and net security provider will be fundamentally impacted by the character and quality of its defense relationship with the United States. Strong and constant US-India defense cooperation, including increased sharing of advanced military technologies, will also bolster regional security, help India manage territorial threats from China, and force China to develop greater capacity or assume greater risk in attacks anywhere along its periphery. India's strength can constrain China's freedom of action. The future looks far more ominous if US-India defense cooperation deteriorates and is not leveraged to its fullest potential.

Encouragingly, since the Major Defense Partner designation, the US and India have concluded four key defense enabling agreements that facilitate secure communications across multiple platforms, allow for greater technology transfer, increase industry cooperation on sensitive technology, and allow real-time geospatial intelligence sharing. Interoperability has also been improved between India, the US, and US allies such as

Australia, Japan, and South Korea. The US has cleared the way to share more sophisticated technologies, including armed UAVs. This level of technology sharing is unprecedented to date outside of America's community of allies and closest partners.

The trajectory of India-US defense cooperation going forward is indeed promising, but obstacles remain in technology sharing, the cost of US systems, and challenges for the US in effectively partnering with India as it seeks to build an indigenous defense industrial base. More broadly, actions that would undermine trust or raise concerns over either country's reliability as a partner could strain or even derail the trajectory of US-India cooperation. Take, for example, the expected fallout should the US impose the Countering America's Adversaries through Sanctions Act or other sanctions on India or if India makes choices in the substance and nature of its close relationship with Russia that lead the United States to limit cooperation.

Strong India-US relations will create conditions for the US to continue to provide greater and more technologically advanced defense platforms, increase our intelligence and information sharing, and step up the scope and complexity of military-to-military exercises with both the US and other regional partners. This is no time to rest on our laurels or assume the strength and trajectory of this relationship will endure without significant attention and investment.

STRENGTHENING DEFENSE COOPERATION

Officials in both countries recognize that the momentum of US-India defense cooperation is arguably stalling in key areas like codevelopment and coproduction of critical new technologies even as it deepens in areas like intelligence sharing. Significant opportunities to advance the relationship remain unexploited. From large-end defense platforms to emerging technologies with dual-use applications, the United States and India are leaving significant opportunities on the table. We recommend the following opportunities to strengthen the technology piece of US-India defense cooperation.

PUTTING THE "MAJOR" IN THE MAJOR DEFENSE PARTNERSHIP: SHARE ADVANCED DEFENSE TECHNOLOGIES WITH INDIA AT THE LEVEL OF OUR CLOSEST ALLIES

With the designation of India as a Major Defense Partner—a relationship portrayed as akin to those the US maintains with its treaty allies—there is an expectation that the US will share its advanced technologies at the same level. For India, there is also an expectation that defense trade be viewed as an investment in the relationships that are in India's long-term strategic interests to maintain and strengthen.

It is exceedingly difficult for the United States to implement this vision for two reasons: First, export control regimes, while well intended, hamper technology transfers even

with America's closest allies. The United Kingdom and Australia, for example, have formal Defense Trade Cooperation Treaties with the United States. Despite this, all three governments are struggling to implement both the nuclear submarine and the critical technology pillars of the Australia-United Kingdom-United States security agreement. Second, while the US government might block US companies from sharing technology, it will not direct them to share technology for strategic purposes. Other states supplying India with defense technologies, including Russia and also allies like France, Israel, and the UK, have formal defense industrial policies facilitating these transfers and are more able to offer technology through official government channels. The UK, for example, has offered India maritime propulsion and jet-engine technology; France is offering India both nuclear submarine cooperation and fighter-jet engine technology; and Israel offers full transfers of technology on drones and missiles. Russia remains for the foreseeable future the critical source of the majority of India's strategic systems, including its inter-continental ballistic missiles and nuclear submarines. In this context, the advantages afforded to India by its designation as a Major Defense Partner are underwhelming.

Thus, despite having unilaterally pushed the permanent nuclear powers to accept India as a nuclear weapons state, the United States remains overly constrained in sharing sensitive technology with India. To address this, Congress should add India to the list of NATO allies, Australia, Japan, New Zealand, Israel, and South Korea given preferred treatment under the Arms Export Control Act, as proposed for several years by US Senators Mark Warner and John Cornyn. The same technologically advanced and capable US fighters, including the F-35, should be made available to India should it wish to procure them. India in turn should factor the long-term strategic impact when making decisions on major defense purchases like fighters. The Department of Defense and US industry should work closely together to identify technology that can be shared and systems that could be manufactured in India to support its efforts to build a defense-industrial base. And we should encourage and facilitate defense trade and technology transfer between India and our closest allies, creating more and better opportunities to build India's technology capabilities through defense trade and expanding the Defense Technology and Trade Initiative (DTTI) umbrella to include additional countries—for example, establishing a "Quad DTTI." The more recent India Initiative on Critical Emerging Technologies (iCET), officially launched in January 2023 when US National Security Advisor Jake Sullivan and his Indian counterpart Ajit Doval met in Washington, DC, should aim to build on the defense technology sharing objectives of DTTI. Opportunities to harness cooperation across US and Indian governments, research laboratories, universities, and the private sector can and should be more effectively exploited.⁵

On the Indian side, major reforms like raising foreign direct investment caps to 74 percent for defense production-linked investment schemes and dedicated defense corridors have not yet seen the level of uptake the Indian government would like. This is often because issues around taxation, IP protection, duties on imports, or the availability of key inputs subject to local content requirements make major investments too complicated or too costly. A fast-track empowered group led out of the National Security

Council staff could potentially investigate and resolve such obstacles through waivers or reforms to facilitate deals that will help with self-sufficiency in defense.

Additionally, legacy US concerns about creating a relative imbalance between Pakistan's capabilities and India must be shelved for the good of our vital and important interests in this era of strategic competition with China. Pakistan does not have the strategic priority it once maintained during the Cold War and during the early years of the Global War on Terrorism. United States policies toward sharing military technologies with India must not be limited by these historic and no longer relevant constraints imposed by concerns for relations with Pakistan.

CREATE REAL INCENTIVES AND VIABLE MECHANISMS TO DECREASE DEPENDENCY ON RUSSIAN DEFENSE PLATFORMS AND EQUIPMENT

Russia's war against Ukraine over the last year underscores the political and strategic liabilities of maintaining close relations with this aggressor nation as well as the risks of depending on defense equipment of Russian origin. India is both diversifying and indigenizing its defense production to address such vulnerabilities; despite past success with technology from Russia, Indian leaders recognize that the cutting-edge future they want will not be made in Moscow. The US could be a bigger part of the solution. But many US-made options remain too expensive or are unavailable.

India is not interested in traditional security assistance like Foreign Military Financing, but other steps could be taken to make acquiring US defense equipment more feasible. For example, the US government could consider providing India what amounts to "Foreign Military Sales Credits" and create provisions that allow for Department of Defense Title 10 grant assistance to be used as credits toward the purchase of strategically important capabilities that India currently seeks. The US Development Finance Corporation (DFC) currently provides structured finance, investment, and loan guarantees in areas including infrastructure, energy, and health care in India, but it is prohibited from work on defense articles and services. This policy could be reevaluated, or short of this, the administration could direct DFC to support critical technologies that are dual use, including in space, microelectronics, and networking, for example. The US should have a de facto "fast track" approval process to provide India major defense systems more rapidly and with fewer restrictions to better compete with other suppliers, including allies and partners. This can be achieved informally by requiring that decisions to deny any technology to India be reviewed by a senior official or panel such as the deputy secretary of state and deputy secretary of defense.

INCREASE THE SUBSTANCE AND SCOPE OF PUBLIC-PRIVATE DEFENSE INNOVATION COOPERATION WITH INDIA

India, like the United States, recognizes that technologies with military relevance such as AI, machine learning, and quantum computing are increasingly being developed in the

commercial technology base, not just in universities and government labs. Progressive initiatives from within the Indian Ministry of Defense, such as Innovations in Defense Excellence (IDEX), are keen to learn from the US experience and to partner with organizations like the Defense Innovation Unit. An India better able to identify, adopt, and deploy technology needed for its defense and security will be a stronger, more capable, and interoperable US partner. Establishing and leveraging greater public-private partnerships between the US and India provides opportunities to harness the potential of both states' vibrant technology sectors and focus them on defense.

OPERATIONALIZE THE DEFENSE ENABLING AGREEMENTS

Both authors served in the same role—deputy assistant secretary of defense for South and Southeast Asia—during different administrations. The now-concluded enabling agreements—Logistics Exchange Memorandum of Agreement; Communications Compatibility and Security Agreement; Industrial Security Agreement; and Basic Exchange and Cooperation Agreement—provide the foundation for in-depth defense cooperation and interoperability. To date, this foundation has not led to enough innovation. Communications and servicing have been streamlined, and intelligence sharing has become more robust and routine, but industrial cooperation remains bogged down. India will avoid any appearance of formally allying militarily with the United States against China and will not participate in certain types of military-to-military cooperation, but the implementation of these agreements provides a path to far more robust military collaboration.

The defense enabling agreements can be operationalized by increasing cooperation in more benign scenarios, such as humanitarian assistance and disaster relief, and other activities that encourage military-to-military relationships, intelligence and information sharing, interoperability, and cooperation potential. Priority areas for cooperation facilitated by the conclusion of these enabling agreements include positioning US-India defense ties within the broader bilateral and multilateral security architecture; identifying gaps in military capabilities and sourcing them to the Indian military services; institutionalizing opportunities for greater intelligence sharing; establishing deeper and more substantive consultations aimed at addressing and mitigating risks in the nuclear, space, and cyber domains; prioritizing activities that enable joint combined operations and cooperation with countries across the region subject to nefarious Chinese influence; and significantly leveraging these agreements to drive increased transfers of advanced technologies and empowering more substantive codevelopment efforts.⁶

CONCLUSION

India is on track to assume what its leaders and citizens view as its natural role as a major global power. India has the world's fifth-largest economy, which experts predict will grow to \$10 trillion by 2025. By 2030 India may be the third-largest economy, after the United States and China. India's military is the third largest in the world and is making

significant investments in modernizing its forces and increasing their readiness. More people will live in India than any other country in the world within the next five years and, unlike many of the largest economies in the region, India's young population ensures a large workforce that must support a comparatively small population of seniors.

India is well equipped to realize the ascendant vision articulated by its leaders and will continue to make positive gains toward these ends. The character, pace, and extent of India's rise, however, is not preordained. For the United States and India, both facing an assertive and revisionist China, the rationale for strategic defense cooperation is clear. But many external and internal factors will influence India's regional and global position in the decades going forward.

Though they are not allies, the US and India have deep ties and shared interests that make them natural partners. A strong, capable, and independent India assuming its natural place as a regional power with global influence is not just in the interest of India but of every country sharing a similar vision for the future of the Indo-Pacific region and beyond. Increasing the depth and breadth of US-India defense cooperation, especially in the realm of expanding the sharing of advanced military technologies, has been and can continue to be a driving force in advancing the broader bilateral relationship as well as relationships with those of US allies and partners across the region.

NOTES

1. Minister Sitharaman made these remarks at the inaugural 2+2 dialogue meeting in Delhi on September 6, 2018. See Jim Garamone, "US-India Defense Cooperation a 'Key Driver' of Overall Relationship," US Department of Defense, September 6, 2018, <https://www.defense.gov/News/News-Stories/Article/Article/1622396/us-india-defense-cooperation-a-key-driver-of-overall-relationship>.
2. For an excellent primer, see Jayshree Bajoria and Esther Pan, "The US-India Nuclear Deal," Council on Foreign Relations, updated November 5, 2010, <https://www.cfr.org/backgrounder/us-india-nuclear-deal>.
3. For a summary of key developments in US-India defense relations, see US Department of State, Bureau of Political-Military Affairs Fact Sheet, "US Security Cooperation with India," <https://www.state.gov/u-s-security-cooperation-with-india>.
4. "Confluence of the Two Seas," speech by Shinzo Abe, prime minister of Japan, Ministry of Foreign Affairs of Japan, August 22, 2007.
5. For an excellent backgrounder on iCET, see Rudrah Chaudhuri, "What Is the United States-India Initiative on Critical and Emerging Technologies (iCET)?" Carnegie India, February 27, 2023, <https://www.google.com/search?client=safari&rls=en&q=i CET+india+critical+emerging+technologies&ie=UTF-8&oe=UTF-8>.
6. See Joshua White, "After the Foundational Agreements: An Agenda for US-India Defense and Security Cooperation," Brookings, January 2021. <https://www.google.com/search?client=safari&rls=en&q=operationalizing+the+defense+enabling+agreements+with+India&ie=UTF-8&oe=UTF-8>.

ABOUT THE AUTHORS

DAVID FEDOR

David Fedor is a senior research program manager at the Hoover Institution, where he supports fellowship research within the George P. Shultz Energy Policy Working Group and in Hoover's national security-oriented Global Policy and Strategy Initiative. Formerly at APEC's Asia Pacific Energy Research Center in Tokyo, Fedor has worked in economic and security policy analysis across the Indo-Pacific.

SUMIT GANGULY

Sumit Ganguly is a distinguished professor of political science and holds the Tagore Chair in Indian Cultures and Civilizations at Indiana University, Bloomington. He is also a visiting fellow at the Hoover Institution, Stanford University.

MOHAN KUMAR

Ambassador Dr. Mohan Kumar is a former diplomat with thirty-six years of expertise in the Indian Foreign Service and is currently dean and professor at O.P. Jindal Global University, Sonapat, Haryana, India. He contributes regularly to newspapers and publications on foreign policy, diplomacy, and strategic affairs.

DINSHA MISTREE

Dinsha Mistree is a research fellow in the Huntington Program on Strengthening US-India Relations at the Hoover Institution. He also teaches in the international policy program and at Stanford Law School. His scholarship and policy writing focuses on education and governance in developing countries, with a special focus on India, as well as on US-India relations.

HARSH V. PANT

Professor Harsh V. Pant is vice president of studies and foreign policy at Observer Research Foundation, New Delhi. He is a professor of international relations with King's India Institute at King's College London. He is also director (honorary) of Delhi School of Transnational Affairs at Delhi University.

JOE FELTER

Dr. Joe Felter is a research fellow at the Hoover Institution and founding director of Stanford's Gordian Knot Center for National Security Innovation. A former US Army ranger and Special Forces officer, Felter served as US deputy assistant secretary of defense for South and Southeast Asia (2017-19) and was awarded the Department of Defense Medal for Distinguished Public Service.

S. PAUL KAPUR

S. Paul Kapur is a professor in the Department of National Security Affairs at the US Naval Postgraduate School and a visiting fellow at Stanford University's Hoover Institution. From 2020 to 2021, Kapur served on the State Department's Policy Planning Staff. His interests include security in South Asia and the Indo-Pacific, US-India relations, nuclear weapons proliferation, and Islamist militancy.

VIVEK MISHRA

Dr. Vivek Mishra is a fellow with the Observer Research Foundation's Strategic Studies Programme in New Delhi. He is adjunct faculty at O. P. Jindal Global University in Sonapat, Haryana. He is also visiting faculty at FLAME University and Symbiosis School of International Studies, Symbiosis University, Pune; and visiting faculty, Rashtriya Raksha University, Gandhinagar, Gujrat.

DAVID MULFORD

Ambassador David Mulford is a distinguished visiting fellow at the Hoover Institution and served as US ambassador to India from 2004 to 2009. Ambassador Mulford previously served as the vice chairman international at Credit Suisse and held many government positions, including as under secretary and assistant secretary for international affairs, and senior international economic policy official, both at the US Treasury.

LYDIA POWELL

Lydia Powell has been with the Observer Research Foundation for over twenty years, working on energy policy issues in the Indian context. Her current interests include energy access, electricity sector reform, carbon constraints on energy use, and energy security via clean coal and natural gas.

RAJESWARI RAJAGOPALAN

Dr. Rajeswari (Raji) Pillai Rajagopalan is the director of the Centre for Security, Strategy, and Technology at the Observer Research Foundation, New Delhi. She is also a senior fellow at the Australian Strategic Policy Institute in Canberra. In 2020, she was cochair for a thematic group on strategic technologies for developing India's Science, Technology, and Innovation Policy.

JOHN RIVERA-DIRKS

John Rivera-Dirks is a visiting fellow at the Hoover Institution focused on the Strengthening US-India Relations initiative. Rivera-Dirks has had a twenty-year career in tech in both the public and private sectors, including at Apple, Microsoft, and Amazon. He previously served for three years as senior advisor and chief of staff to Ambassador David Mulford in the US Foreign Service.

ABHIJIT SINGH

Abhijit Singh, a former Indian naval officer, is a senior fellow at the Observer Research Foundation, where he heads the Maritime Policy Initiative. A maritime professional with specialist and command experience in frontline Indian naval ships, he has contributed to the writing of India's maritime strategy (2007). Singh has published papers on maritime security and ocean governance issues and is a keen commentator on maritime matters.

TRISHA RAY

Trisha Ray is a fellow and deputy director at the Centre for Security, Strategy, and Technology at the Observer Research Foundation, a member of UNESCO's Information Accessibility Working Group, a Pacific Forum Young Leader, and a 2022 Schmidt Futures ISF Asia Fellow. Ray completed her MA in security studies from the Walsh School of Foreign Service at Georgetown University.

PREMESA SAHA

Dr. Premesha Saha is a fellow with the Observer Research Foundation's Strategic Studies Programme. Her research focuses on Southeast Asia, East Asia, and the South Pacific, and the emerging dynamics of the Indo-Pacific region. Her other research interests include Indonesia's maritime strategy, India's Act East Policy, and Asia-Pacific multilateralism. She has published extensively in peer-reviewed journals as well as newspapers and magazines.

VIKRAM J. SINGH

Vikram J. Singh is senior advisor to the Asia Program at the US Institute of Peace. From 2014 to 2017 Singh was vice president for national security and international policy at the Center for American Progress. As deputy assistant secretary of defense for South and Southeast Asia (2012-14), Singh deepened US defense cooperation in the region.



The publisher has made this work available under a Creative Commons Attribution-NonCommercial license 4.0. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc/4.0>.

Copyright © 2023 by the Board of Trustees of the Leland Stanford Junior University

The views expressed in this essay are entirely those of the authors and do not necessarily reflect the views of the staff, officers, or Board of Overseers of the Hoover Institution.

29 28 27 26 25 24 23 7 6 5 4 3 2 1



About the Hoover Institution

With its eminent scholars and world-renowned Library and Archives, the Hoover Institution is a public policy think tank that seeks to improve the human condition by advancing ideas that promote economic opportunity and prosperity, while securing and safeguarding peace for America and all mankind. Our focus is on scholarly and empirical research that asks bold questions, offers powerful solutions for policymakers, and advances ideas that improve people's lives.

For more information about the Hoover Institution, please visit us online at hoover.org.



About the Observer Research Foundation

The Observer Research Foundation (ORF) provides nonpartisan, independent analyses and inputs on matters of security, strategy, economy, development, energy, and global governance to diverse decisionmakers (in government, business communities, academia, and civil society). ORF's mandate is to conduct in-depth research, provide inclusive platforms, and invest in tomorrow's thought leaders today.

For more information about the Observer Research Foundation, please visit us online at orfonline.org.

Hoover Institution, Stanford University
434 Galvez Mall
Stanford, CA 94305-6003
650-723-1754

Hoover Institution in Washington
1399 New York Avenue NW, Suite 500
Washington, DC 20005
202-760-3200

