

Congressional statecraft and the Rise of US-India Strategic Convergence: From civil Nuclear cooperation to Critical Technologies

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Abstract: The evolution of United States–India relations over the past two decades represents one of the most consequential strategic realignments in contemporary international politics. While much of the existing scholarship attributes this transformation to changing geopolitical realities, particularly the rise of China and the growing importance of the Indo-Pacific, less attention has been paid to the role of domestic institutions in shaping this trajectory. This article examines the contribution of the United States Congress to the development of the bilateral partnership, arguing that congressional action has been central to the institutionalization of strategic cooperation between the two countries. The study traces the progression of the relationship from the negotiation and approval of the U.S.–India Civil Nuclear Agreement to current collaboration in critical and emerging technologies. Drawing upon a historical-institutionalist framework, the article demonstrates how congressional support for nuclear cooperation generated a foundation of political trust and policy continuity that subsequently facilitated deeper engagement in areas such as defense innovation, semiconductor supply chains, artificial intelligence, quantum technologies, and advanced manufacturing. Rather than functioning solely as an oversight body, Congress emerged as an active participant in reshaping the strategic logic of U.S. engagement with India. The article concludes that congressional statecraft has played a significant role in transforming bilateral ties into a multidimensional partnership that increasingly occupies a central place in the strategic architecture of the Indo-Pacific.

Keywords: U.S.–India relations, congressional statecraft, civil nuclear agreement, strategic convergence, critical and emerging technologies, Indo-Pacific, technology diplomacy.

Introduction

The contemporary partnership between the United States and India stands in marked contrast to the mutual distrust that characterized much of their relationship during the Cold War. For decades, divergent strategic orientations, disagreements over nuclear policy, and contrasting perceptions of international order limited the scope of bilateral engagement. Yet by the beginning of the twenty-first century, both countries had begun to reassess the strategic value of closer cooperation. The result was a gradual but significant transformation that elevated the relationship from episodic engagement to an increasingly comprehensive strategic partnership.

Among the many developments that contributed to this shift, the U.S.–India Civil Nuclear Agreement occupies a particularly important place. More than a technical arrangement concerning nuclear commerce, the agreement represented a broader political decision to redefine the parameters of bilateral relations. By supporting legislation that enabled civilian nuclear cooperation with a state outside the Nuclear Non-Proliferation Treaty framework, the United States Congress effectively endorsed a new strategic approach toward India. In doing so, it helped remove one of the most persistent obstacles that had constrained the relationship for decades.

The significance of this legislative intervention extends beyond the nuclear sector itself. The political trust generated through the nuclear agreement created conditions that enabled subsequent cooperation in defense, trade, and advanced technology. Over time, the relationship expanded into areas that are increasingly central to twenty-first-century geopolitics, including artificial intelligence, quantum computing, semiconductors, space technologies, cybersecurity, and resilient supply chains. Initiatives such as the U.S.–India Initiative on Critical and Emerging Technology (iCET) reflect this broader transformation and illustrate how technological collaboration has become a core pillar of bilateral engagement.

Despite the growing literature on U.S.–India strategic relations, scholarly attention has largely focused on executive diplomacy, geopolitical balancing, and the role of shared democratic values. Comparatively little research has examined how congressional actions contributed to the long-term institutionalization of the partnership. This omission is notable because Congress played a decisive role not only in enabling nuclear cooperation but also in sustaining bipartisan support for a deeper strategic relationship across successive administrations.

This article seeks to address that gap by exploring the relationship between congressional statecraft and the evolution of U.S.–India strategic convergence. It asks how legislative action contributed to the transition from civil nuclear cooperation to collaboration in critical and emerging technologies. The central argument advanced here is that congressional intervention during the nuclear negotiations established an institutional pathway that reduced

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political uncertainty, strengthened mutual confidence, and facilitated the expansion of cooperation into new strategic domains. The development of technology partnerships in the 2020s should therefore be understood not as an entirely new phase of engagement, but as part of a longer process that began with the legislative and political choices made during the nuclear rapprochement.

By situating congressional action at the center of the analysis, the article contributes to broader debates on the role of domestic institutions in foreign policy and strategic partnership formation. It also highlights the importance of legislative actors in shaping the geopolitical and technological dimensions of contemporary international relations. In an era increasingly defined by competition over advanced technologies and supply-chain resilience, understanding the institutional foundations of U.S.–India cooperation has become more important than ever.

2. Literature Review

The growing body of scholarship on U.S.–India relations reflects the remarkable transformation of a relationship once characterized by mutual suspicion into one increasingly defined by strategic cooperation. Much of this literature has sought to explain the drivers of this shift, emphasizing geopolitical change, economic interdependence, and the emergence of shared strategic interests. While these explanations have generated important insights, relatively little attention has been devoted to the role of legislative institutions, particularly the United States Congress, in shaping the trajectory of bilateral relations.

One influential strand of scholarship locates the origins of strategic convergence in structural changes within the international system. Scholars such as Ashley Tellis, C. Raja Mohan, and Sumit Ganguly argue that the rise of China and the redistribution of power in Asia encouraged both Washington and New Delhi to reconsider their strategic priorities. Within this perspective, closer cooperation emerged as a response to evolving regional security dynamics rather than as the product of domestic political processes. India's growing economic and military capabilities, combined with its geographic position in the Indo-Pacific, increasingly elevated its importance in American strategic calculations.

A second body of literature highlights the role of economic liberalization and globalization. Following the economic reforms initiated in India during the early 1990s, bilateral trade and investment expanded substantially, creating new constituencies supportive of closer engagement. Scholars working within this framework contend that economic integration gradually reduced ideological barriers and generated incentives for broader cooperation. The expansion of commercial ties, particularly in information technology and services, contributed to a more positive perception of India among policymakers and business communities in the United States.

A third perspective emphasizes the significance of democratic values and political compatibility. Proponents of this argument suggest that shared commitments to constitutional governance, political pluralism, and rule of law created a normative foundation for strategic cooperation. Although democratic identity alone cannot explain the timing or depth of the partnership, it has often been cited as an important facilitating factor in strengthening bilateral trust and reducing political uncertainty.

Despite these valuable contributions, the existing literature remains heavily focused on executive decision-making and systemic factors. Analyses of the civil nuclear agreement, for example, often concentrate on the diplomatic efforts of political leaders and senior officials while devoting comparatively limited attention to the legislative processes that made the agreement possible. Yet the approval of the U.S.–India nuclear deal required significant congressional involvement, including the modification of long-standing non-proliferation legislation and the construction of a new legal framework for cooperation with a non-signatory of the Nuclear Non-Proliferation Treaty. Understanding how Congress facilitated this process is essential for explaining the durability of the partnership that followed.

The concept of congressional statecraft offers a useful lens through which to examine this dimension of bilateral relations. Traditionally, studies of congressional influence in foreign policy have focused on legislative constraints imposed upon the executive branch. Congress is frequently portrayed as a veto player capable of limiting presidential discretion through oversight, budgetary authority, and statutory restrictions. However, more recent scholarship suggests that Congress can also act as a proactive foreign policy actor capable of shaping strategic outcomes through legislative innovation, coalition-building, and diplomatic signaling. In this sense, congressional statecraft refers not merely to the exercise of institutional authority but to the strategic use of legislative power in pursuit of broader geopolitical objectives.

The U.S.–India case presents a particularly important example of this phenomenon. Congressional support for the civil nuclear agreement did more than authorize nuclear commerce; it signaled a fundamental reassessment of India's place within American foreign policy. By creating legal and political conditions for cooperation, Congress contributed to a process of institutionalizing trust that extended well beyond the nuclear domain. The long-term implications of this decision have become increasingly evident as bilateral cooperation has expanded into defense technology, strategic trade, and advanced innovation sectors.

Recent scholarship on technology geopolitics further underscores the importance of examining these developments. As competition over critical and emerging technologies becomes a defining feature of international politics, states are increasingly seeking partnerships that enhance technological resilience and reduce strategic

vulnerabilities. Areas such as artificial intelligence, quantum computing, semiconductors, biotechnology, cybersecurity, and advanced telecommunications are now viewed as central components of national power. Consequently, technology cooperation has become an increasingly important element of strategic partnerships.

Within this context, the emergence of the Initiative on Critical and Emerging Technology (iCET) marks a significant stage in the evolution of U.S.–India relations. Existing analyses generally interpret iCET as a response to contemporary geopolitical challenges and technological competition. While this interpretation is persuasive, it often overlooks the historical foundations that made such cooperation possible. The institutional trust, political confidence, and bipartisan support that underpin current technology initiatives did not emerge suddenly; rather, they were cultivated through earlier episodes of cooperation, most notably the civil nuclear agreement.

The literature therefore reveals an important analytical gap. Although scholars have examined the strategic and geopolitical dimensions of U.S.–India relations in considerable detail, there remains limited understanding of how congressional action contributed to the long-term evolution of the partnership. By connecting the civil nuclear agreement to contemporary cooperation in critical technologies, this study seeks to bridge that gap and demonstrate the enduring significance of congressional statecraft in shaping bilateral strategic convergence.

3. Theoretical Framework

This article employs the analytical perspective of historical institutionalism to examine the evolution of U.S.–India strategic relations. Historical institutionalism is particularly useful for understanding how policy decisions made at critical moments generate long-term consequences that shape future political outcomes. Rather than viewing policy change as a series of isolated events, the approach emphasizes continuity, path dependence, and the enduring influence of institutional choices.

A central concept within historical institutionalism is that of the critical juncture. Critical junctures are periods during which significant decisions create new institutional pathways that become increasingly difficult to reverse over time. Once such pathways are established, they generate patterns of behavior, expectations, and incentives that influence subsequent policy choices. In the context of U.S.–India relations, the civil nuclear agreement can be understood as a critical juncture that fundamentally altered the trajectory of bilateral engagement.

Prior to the nuclear agreement, relations between the two countries were constrained by decades of mistrust and policy disagreement. Although cooperation existed in selected areas, structural barriers limited the development of a broader strategic partnership. Congressional approval of nuclear cooperation represented a departure from established policy and created a new institutional framework through which the relationship could evolve. The significance of this development lay not only in the immediate benefits of nuclear commerce but also in its capacity to reshape expectations regarding future cooperation.

The argument advanced in this article rests upon three interconnected mechanisms. The first is institutional innovation. Through legislative action, Congress established new legal and political arrangements that enabled cooperation previously considered impossible. These changes reduced regulatory obstacles and signaled a willingness to accommodate India's unique strategic position.

The second mechanism is trust institutionalization. Strategic partnerships depend not only on shared interests but also on confidence in the reliability of long-term commitments. Congressional approval of the nuclear agreement provided a strong indication that support for closer relations extended beyond a single administration. As a result, policymakers in both countries gained greater confidence in the durability of bilateral cooperation.

The third mechanism is policy spillover. Institutional changes introduced in one policy area frequently create opportunities for cooperation in adjacent sectors. In the U.S.–India case, the political capital generated through nuclear cooperation facilitated expansion into defense, trade, innovation, and advanced technology. Over time, the logic of cooperation broadened from energy security to encompass a much wider set of strategic objectives.

Viewed through this framework, contemporary initiatives in critical and emerging technologies are not isolated developments. Rather, they represent the continuation of a process that began with the institutional and political choices made during the nuclear rapprochement. Historical institutionalism thus provides a useful framework for understanding how congressional statecraft contributed to the gradual but profound transformation of U.S.–India relations over the past two decades.

4. Methodology

This study employs a qualitative case study approach to examine the role of congressional statecraft in the evolution of U.S.–India strategic relations. The choice of methodology is guided by the nature of the research question, which seeks to understand the processes through which legislative actions influenced the development of a long-term strategic partnership. Rather than measuring causal relationships through quantitative indicators, the study focuses on tracing institutional and political developments over time in order to identify the mechanisms linking congressional intervention to broader patterns of strategic cooperation.

The research adopts process tracing as its primary analytical method. Process tracing is particularly useful for investigating historical sequences and identifying how specific decisions contribute to subsequent political outcomes. By examining key moments in the evolution of U.S.–India relations, the study seeks to establish whether congressional actions during the civil nuclear negotiations created institutional conditions that facilitated later cooperation in critical and emerging technologies.

The temporal scope of the analysis extends from 2005, when the Joint Statement issued by President George W. Bush and Prime Minister Manmohan Singh initiated the process of civil nuclear cooperation, to the contemporary

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phase of technology collaboration represented by initiatives such as the Initiative on Critical and Emerging Technology (iCET). This period captures both the formative stage of strategic rapprochement and the subsequent expansion of cooperation into new domains.

The study draws upon multiple categories of primary and secondary sources. Primary materials include congressional records, legislative texts, committee reports, executive branch policy documents, presidential statements, joint declarations, and official publications from both governments. These documents provide insight into the intentions, debates, and policy objectives that shaped bilateral engagement. Particular attention is given to legislative deliberations surrounding the Hyde Act of 2006 and the approval process for the U.S.-India Civil Nuclear Agreement, as these represent crucial moments in the institutionalization of the partnership.

Secondary sources consist of academic books, peer-reviewed journal articles, policy reports, and strategic assessments produced by leading research institutions. The existing literature provides important context regarding the geopolitical environment, the evolution of U.S. foreign policy toward India, and the broader significance of technological cooperation in contemporary international relations. By integrating these sources, the study situates congressional actions within larger debates concerning strategic partnerships, institutional change, and technology geopolitics.

The analysis proceeds in three stages. First, it examines the legislative and political processes that enabled the civil nuclear agreement, focusing on how Congress contributed to redefining American policy toward India. Second, it explores the ways in which nuclear cooperation generated broader patterns of strategic engagement, particularly in defense and security affairs. Finally, it investigates the emergence of technology-focused cooperation and assesses the extent to which contemporary initiatives reflect institutional pathways established during the earlier phase of bilateral rapprochement.

Although the study emphasizes congressional influence, it does not suggest that legislative action alone explains the transformation of U.S.-India relations. Geopolitical developments, executive leadership, economic interdependence, and changing regional dynamics also played important roles. The objective, therefore, is not to establish a monocausal explanation but rather to highlight an often-overlooked dimension of the relationship and demonstrate how congressional statecraft interacted with broader strategic forces.

By combining historical analysis with process tracing, the methodology enables a more comprehensive understanding of how legislative institutions contribute to the formation and consolidation of strategic partnerships. This approach is particularly relevant in the U.S.-India context, where major shifts in bilateral relations have frequently depended upon the interaction between domestic political institutions and international strategic considerations.

5. Congressional Statecraft and the Civil Nuclear Breakthrough

The transformation of U.S.-India relations cannot be understood without examining the political significance of the civil nuclear agreement. Although frequently discussed as an energy or non-proliferation initiative, the agreement was fundamentally a strategic project designed to redefine the relationship between the world's oldest and largest democracies. At the center of this transformation stood the United States Congress, whose legislative actions provided the legal and political foundation necessary for the agreement to move forward.

For much of the Cold War and the decade that followed, nuclear issues represented one of the principal sources of friction between Washington and New Delhi. India's nuclear tests in 1974 and 1998 reinforced concerns within the United States regarding non-proliferation, leading to sanctions and restrictions that limited the scope of bilateral engagement. Existing American laws and international commitments effectively prevented civilian nuclear cooperation with states outside the Nuclear Non-Proliferation Treaty framework. Consequently, despite gradual improvements in political relations during the 1990s and early 2000s, significant institutional barriers remained in place.

The situation began to change in July 2005 when President George W. Bush and Prime Minister Manmohan Singh announced their intention to pursue a new framework for civilian nuclear cooperation. The initiative reflected a growing recognition within the United States that India occupied a unique position in the international system. Policymakers increasingly viewed India not merely through the lens of non-proliferation but as a rising power whose integration into the global order served broader American strategic interests.

However, executive branch support alone was insufficient to achieve this objective. Existing legislation required substantial modification before nuclear cooperation could be authorized. This reality placed Congress at the center of the policy process. Legislative approval became the critical test of whether the United States was prepared to undertake a fundamental reassessment of its approach toward India.

The passage of the Hyde Act in 2006 represented a turning point in this regard. Through this legislation, Congress created a legal framework that allowed for civilian nuclear cooperation while maintaining certain oversight provisions and reporting requirements. The significance of the Hyde Act extended beyond its technical provisions. It demonstrated a willingness among legislators to reconcile non-proliferation concerns with broader strategic objectives. In effect, Congress acknowledged that strengthening relations with India constituted an important national interest that justified a degree of policy innovation.

The debates surrounding the legislation revealed competing visions of American foreign policy. Critics argued that granting India special treatment could weaken global non-proliferation norms and create precedents that might prove difficult to sustain. Supporters, by contrast, emphasized India's record as a responsible nuclear power and highlighted the strategic benefits of closer engagement. Ultimately, the latter perspective prevailed, reflecting a growing bipartisan consensus regarding India's importance within American grand strategy.

The congressional approval process also served an important signaling function. International agreements often generate uncertainty regarding their long-term durability, particularly when they depend heavily upon executive leadership. By securing legislative endorsement, the nuclear agreement acquired a level of institutional legitimacy that extended beyond the tenure of any individual administration. For Indian policymakers, congressional support provided reassurance that the United States was committed to a sustained strategic relationship rather than a temporary diplomatic initiative.

This aspect of congressional statecraft is frequently overlooked in analyses of the nuclear agreement. Legislative approval did more than remove legal obstacles; it contributed to the construction of mutual trust. Strategic partnerships require confidence that commitments will survive political transitions and changing domestic circumstances. The involvement of Congress helped create precisely this confidence, making it easier for both governments to pursue deeper forms of cooperation in subsequent years.

The consequences of the nuclear breakthrough became increasingly visible as the relationship expanded into other sectors. Defense cooperation accelerated, military exercises became more frequent, and institutional dialogue deepened across a range of strategic issues. The political momentum generated by the agreement also encouraged policymakers to reconsider existing restrictions on technology transfers and defense collaboration. In this sense, the nuclear deal functioned not as an isolated achievement but as the starting point of a broader process of strategic integration.

From a historical-institutionalist perspective, the civil nuclear agreement represents a classic example of a critical juncture. The legislative decisions made during this period altered the institutional trajectory of bilateral relations and created new opportunities for future cooperation. Once established, these pathways generated their own momentum, encouraging policymakers in both countries to explore additional areas of collaboration.

The broader significance of congressional statecraft therefore lies in its capacity to reshape strategic possibilities. By facilitating the nuclear agreement, Congress did not merely approve a specific policy initiative; it contributed to the emergence of a new framework for U.S.–India relations. The legacy of that decision continues to influence contemporary cooperation in fields far removed from nuclear energy, including advanced defense technologies, semiconductor manufacturing, artificial intelligence, and innovation partnerships.

Viewed from this perspective, the civil nuclear agreement was not the culmination of a diplomatic process but the beginning of a deeper strategic transformation. The institutional foundations established through congressional action would subsequently support the expansion of bilateral cooperation into domains that have become increasingly central to twenty-first-century geopolitics.

6. From Nuclear Cooperation to Strategic Partnership: Expanding the Scope of Convergence

The significance of the U.S.–India civil nuclear agreement lies not only in the immediate outcomes it produced but also in the broader strategic transformation it set in motion. While the agreement was initially framed as a mechanism for facilitating civilian nuclear cooperation, its longer-term impact was far more extensive. By reducing a major source of bilateral tension and establishing a framework of mutual confidence, it created opportunities for collaboration across a range of political, economic, and security domains. Over time, the relationship evolved from a narrowly defined partnership into a multidimensional strategic engagement encompassing defense, regional security, technology, and economic resilience.

One of the most visible consequences of the post-nuclear rapprochement was the rapid expansion of defense cooperation. Prior to the early 2000s, military engagement between the two countries remained relatively limited. Although contacts existed, they lacked the depth and institutionalization associated with close strategic partners. Following the nuclear agreement, however, defense relations experienced significant growth. Regular military exercises, expanded defense dialogues, and increasing interoperability between the armed forces reflected a new level of strategic trust.

The deepening of defense ties was accompanied by a gradual shift in American policy regarding technology transfers and defense trade. India increasingly came to be viewed as a long-term security partner rather than merely a purchaser of military equipment. This shift was evident in a series of initiatives designed to promote defense innovation, co-development, and industrial collaboration. The designation of India as a Major Defense Partner in 2016 further reflected Washington's willingness to accord New Delhi a distinctive position within its strategic framework.

The growth of defense cooperation also reflected changing perceptions of the regional security environment. The emergence of the Indo-Pacific as a central arena of geopolitical competition encouraged both countries to reassess their strategic priorities. Concerns regarding maritime security, freedom of navigation, supply-chain vulnerabilities, and regional stability generated new areas of shared interest. Although the United States and India have not formed a formal alliance, their strategic objectives increasingly overlap in important respects.

The Indo-Pacific framework provided a broader geopolitical context within which bilateral cooperation could expand. As China's economic and military influence continued to grow, policymakers in both Washington and

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New Delhi became more attentive to the importance of balancing power dynamics in the region. This convergence did not emerge from identical threat perceptions or policy preferences; rather, it reflected a growing recognition that cooperation could help address common strategic challenges while preserving regional stability.

The revival and institutionalization of the Quadrilateral Security Dialogue (Quad), involving the United States, India, Japan, and Australia, further demonstrated the extent to which bilateral relations had become embedded within a wider regional strategy. Although the Quad is not a military alliance, its focus on maritime security, infrastructure, technology, and resilient supply chains illustrates the increasingly comprehensive nature of contemporary strategic cooperation. India's active participation in this framework underscores the degree to which it has become a central actor in the evolving Indo-Pacific order.

Economic and technological considerations also assumed greater importance during this period. The expansion of bilateral trade, investment flows, and private-sector engagement strengthened the foundations of the relationship. Indian technology firms became increasingly integrated into global markets, while American companies expanded their presence within India's growing digital economy. These developments created new networks of cooperation that extended beyond traditional diplomatic and security channels.

At the same time, policymakers began to recognize that technological capabilities were becoming central determinants of national power. The strategic significance of advanced technologies transformed discussions about economic cooperation into broader conversations about competitiveness, innovation, and security. Issues such as semiconductor production, telecommunications infrastructure, cybersecurity, and digital governance gradually entered the mainstream of bilateral engagement.

Importantly, these developments did not occur independently of the institutional foundations established during the nuclear rapprochement. The confidence generated by earlier cooperation made it easier for policymakers to explore sensitive areas involving technology sharing, defense innovation, and industrial collaboration. Trust, once established through the successful negotiation and implementation of the nuclear agreement, became a valuable political resource that could be applied to new policy domains.

From an institutional perspective, the post-nuclear period illustrates the phenomenon of policy spillover. Cooperation in one strategic sector generated incentives and opportunities for collaboration in others. What began as an effort to resolve disagreements over nuclear policy gradually evolved into a broader framework encompassing defense, trade, regional security, and technological innovation. This process demonstrates how strategic partnerships often develop incrementally, with success in one area creating momentum for expansion into additional sectors.

The growing complexity of U.S.–India relations by the late 2010s suggested that the partnership had entered a new phase. No longer defined primarily by nuclear issues, the relationship increasingly revolved around questions of technological leadership, economic resilience, and geopolitical competition. These developments laid the groundwork for the emergence of a new strategic agenda centered on critical and emerging technologies.

7. The Rise of Critical Technologies and the Emergence of a New Strategic Agenda

The twenty-first century has witnessed a profound transformation in the sources of national power. While military capabilities and economic strength remain important, technological innovation has emerged as an increasingly decisive factor in shaping international influence and strategic competitiveness. Advances in artificial intelligence, quantum computing, semiconductor manufacturing, biotechnology, cybersecurity, and advanced communications technologies are altering the foundations of economic growth and national security. As a result, cooperation in critical technologies has become a central feature of contemporary international partnerships.

Against this backdrop, U.S.–India relations entered a new stage of development. The strategic logic that had previously driven cooperation in nuclear energy and defense gradually expanded into the technological domain. Policymakers in both countries recognized that collaboration in emerging technologies could generate economic benefits while simultaneously strengthening their capacity to respond to evolving geopolitical challenges.

Several factors contributed to this shift. First, technological competition increasingly became intertwined with questions of national security. The ability to develop and control advanced technologies came to be viewed as a source of strategic advantage. Governments around the world began to devote greater attention to securing supply chains, protecting intellectual property, and fostering domestic innovation ecosystems. In this environment, partnerships with trusted technological actors acquired heightened importance.

Second, disruptions in global supply chains exposed vulnerabilities associated with excessive dependence on concentrated manufacturing hubs. The COVID-19 pandemic and subsequent geopolitical tensions highlighted the need for diversification and resilience. India emerged as an attractive partner in efforts to build alternative production networks, particularly in sectors such as semiconductors, electronics manufacturing, and critical minerals.

Third, India's expanding technological capabilities enhanced its attractiveness as a strategic partner. The country's large pool of scientific talent, growing digital economy, vibrant startup ecosystem, and expanding research infrastructure positioned it as an increasingly important participant in global innovation networks. American policymakers and industry leaders increasingly viewed collaboration with India as an opportunity to strengthen

technological competitiveness while supporting broader strategic objectives.

These developments culminated in the launch of the Initiative on Critical and Emerging Technology (iCET), which marked a significant milestone in bilateral relations. Unlike the civil nuclear agreement, which focused on a specific policy area, iCET was designed as a comprehensive framework encompassing multiple sectors of strategic importance. Its scope extends across artificial intelligence, quantum technologies, semiconductors, advanced telecommunications, defense innovation, space cooperation, and next-generation industrial technologies.

The significance of iCET lies in its recognition that technology and geopolitics are increasingly inseparable. Rather than treating innovation as a purely economic issue, the initiative reflects an understanding that technological capabilities influence national security, strategic autonomy, and international influence. Consequently, technology cooperation has become a central pillar of the broader strategic partnership.

The emergence of this new agenda also illustrates the continuity between earlier phases of U.S.–India engagement and contemporary forms of cooperation. Although the policy domains differ substantially, both the civil nuclear agreement and iCET reflect efforts to build institutional mechanisms capable of supporting long-term strategic collaboration. In each case, policymakers sought to overcome historical barriers and create frameworks that would facilitate deeper integration.

From this perspective, the transition from nuclear cooperation to critical technologies represents not a departure from previous policy trajectories but their logical extension. The institutional trust established through congressional support for the nuclear agreement provided a foundation upon which more ambitious forms of technological cooperation could be constructed. Contemporary initiatives therefore build upon political relationships and institutional pathways that have developed over nearly two decades.

The growing importance of critical technologies suggests that the future of U.S.–India relations will increasingly be shaped by innovation partnerships rather than traditional diplomatic concerns alone. As technological competition becomes a defining feature of international politics, the ability of both countries to sustain collaboration in emerging sectors will play a crucial role in determining the future trajectory of their strategic partnership.

8. Congressional Statecraft in the Age of Critical Technologies

As U.S.–India relations have increasingly moved toward technology-centered cooperation, the role of Congress has evolved alongside the changing strategic environment. During the period of the civil nuclear negotiations, congressional involvement was primarily directed toward addressing legal and regulatory barriers to nuclear cooperation. In the contemporary era, however, legislative engagement extends to a much broader set of issues, including technology governance, supply-chain security, defense innovation, export controls, research collaboration, and industrial policy. These developments demonstrate that congressional statecraft remains an important factor in shaping the direction and sustainability of the bilateral partnership.

The growing importance of critical and emerging technologies has altered the relationship between domestic policymaking and foreign policy. Technologies such as artificial intelligence, quantum computing, advanced semiconductors, biotechnology, and next-generation telecommunications are increasingly viewed as strategic assets with direct implications for economic competitiveness and national security. Consequently, congressional decisions concerning research funding, export regulations, industrial incentives, and technology partnerships now have significant geopolitical consequences.

One important dimension of congressional statecraft involves strategic signaling. Congressional resolutions, hearings, committee reports, and bipartisan statements communicate long-term political commitments that extend beyond individual administrations. Such signals are particularly valuable in international partnerships where policy continuity is essential for sustaining cooperation in sensitive sectors. In the U.S.–India context, bipartisan support within Congress has contributed to a perception that closer engagement enjoys broad institutional backing rather than being dependent upon short-term political circumstances.

This continuity has been especially important in the field of technology cooperation. The development of advanced technologies often requires long investment horizons, extensive research collaboration, and stable regulatory environments. Private firms, research institutions, and government agencies are more likely to undertake ambitious collaborative projects when they perceive political support to be durable. Congressional endorsement therefore serves not only a symbolic function but also an economic and strategic one.

A second area in which congressional statecraft has become increasingly relevant concerns export controls and technology transfer policies. Historically, restrictions on dual-use technologies constituted a major obstacle to cooperation between the United States and India. Many advanced technologies possess both civilian and military applications, creating concerns regarding proliferation, security, and intellectual property protection. Congressional influence over export-control frameworks has therefore played an important role in determining the extent and nature of bilateral technological engagement.

Over the past two decades, significant progress has been made in reducing many of these constraints. Legislative support for closer strategic relations contributed to the gradual adaptation of export-control policies, enabling greater collaboration in defense, aerospace, advanced manufacturing, and research-intensive sectors. While safeguards and regulatory requirements remain important, the overall trajectory has been toward facilitating rather than restricting cooperation. This shift reflects a broader reassessment of India's role within American strategic planning.

Semiconductor cooperation provides a particularly useful illustration of these dynamics. The global semiconductor

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industry has emerged as a central arena of technological competition, with governments seeking to secure resilient supply chains and reduce dependence on vulnerable production networks. Legislative initiatives in the United States aimed at strengthening domestic semiconductor capacity have also encouraged international partnerships with trusted countries. Within this context, India has increasingly been viewed as a potential contributor to diversified manufacturing ecosystems and technological resilience.

Congressional support for industrial policy initiatives has therefore indirectly reinforced the strategic rationale for deeper cooperation with India. By promoting investment in advanced manufacturing, research collaboration, and supply-chain diversification, legislative actions help create conditions under which bilateral technology partnerships can flourish. The relationship between domestic industrial policy and international strategic cooperation has become increasingly intertwined.

A third dimension of congressional statecraft concerns defense innovation and technological integration. Modern defense capabilities depend heavily on emerging technologies, including artificial intelligence, autonomous systems, advanced sensors, cyber capabilities, and space-based infrastructure. As defense and commercial technologies become more closely interconnected, cooperation increasingly requires frameworks that facilitate joint research, co-development, and industrial collaboration.

In this regard, congressional support has contributed to the expansion of mechanisms that encourage defense-industrial engagement between the two countries. Although challenges remain, including regulatory complexities and differing procurement systems, there has been a noticeable shift toward viewing India as a partner in innovation rather than simply a consumer of military technology. This evolution reflects broader changes in strategic thinking within Washington regarding the future of defense cooperation.

Another significant aspect of congressional involvement relates to technology governance. Emerging technologies raise complex questions concerning ethics, security, privacy, data protection, and regulatory standards. As governments seek to shape the rules governing technological development, legislative institutions play an increasingly prominent role in defining policy frameworks. Congressional debates regarding artificial intelligence, cybersecurity, digital infrastructure, and technology standards therefore have implications that extend beyond domestic governance and influence international cooperation.

For India, engagement with the United States in these areas offers opportunities to participate more actively in the development of global technological norms. Shared democratic institutions and similar concerns regarding open digital ecosystems provide a basis for cooperation on governance issues, even where policy approaches may differ in specific respects. Congressional involvement contributes to these discussions by shaping the broader policy environment within which bilateral engagement occurs.

Taken together, these developments indicate that congressional statecraft has adapted to the changing nature of strategic competition. Whereas nuclear policy served as the principal focus of legislative engagement during the early phase of rapprochement, technology governance and innovation policy now occupy a similarly important position. Congress continues to influence the trajectory of U.S.-India relations, albeit through mechanisms that reflect the priorities of a technology-driven geopolitical landscape.

9. Discussion: From Nuclear Exceptionalism to Technological Partnership

The evolution of U.S.-India relations over the past two decades reveals a broader transformation in the nature of strategic partnerships in contemporary international politics. The transition from civil nuclear cooperation to collaboration in critical and emerging technologies reflects changing conceptions of power, security, and international influence. At the same time, it highlights the enduring importance of domestic institutions in shaping foreign policy outcomes.

The analysis presented in this study suggests that congressional statecraft played a more significant role in this transformation than is often acknowledged in the existing literature. Much scholarly attention has focused on geopolitical drivers such as the rise of China, the strategic significance of the Indo-Pacific, and the growing economic capabilities of India. While these factors undoubtedly contributed to closer relations, they do not fully explain how bilateral cooperation became institutionalized and sustained across multiple administrations.

The civil nuclear agreement represents a critical moment in this process. Congressional approval of the agreement signaled a willingness to depart from established policy frameworks in pursuit of broader strategic objectives. More importantly, it established a precedent for treating India as a unique strategic partner rather than through the constraints of earlier policy paradigms. The institutional trust generated through this process subsequently facilitated cooperation in other sectors.

The concept of policy spillover provides a useful framework for understanding these developments. The successful management of nuclear cooperation reduced uncertainty and demonstrated the capacity of both countries to address sensitive strategic issues. This experience encouraged policymakers to pursue collaboration in additional domains, including defense, trade, maritime security, and technology. Over time, these interactions generated a dense network of institutional relationships that strengthened the overall partnership.

The rise of critical and emerging technologies has added a new dimension to this process. In contrast to the nuclear era, contemporary strategic competition increasingly revolves around innovation ecosystems, supply chains,

digital infrastructure, and technological leadership. As a result, cooperation between the United States and India has expanded into areas that were largely absent from bilateral discussions two decades ago.

Yet despite these changes, important continuities remain. Both the civil nuclear agreement and contemporary technology initiatives involve efforts to reconcile regulatory concerns with strategic objectives. Both require long-term political commitment and institutional coordination. Most importantly, both depend upon a foundation of trust that allows policymakers to undertake ambitious forms of cooperation in sensitive sectors.

The findings of this study therefore support a broader argument regarding the relationship between domestic institutions and international partnerships. Legislative bodies are often portrayed as constraints on foreign policy flexibility. The U.S.–India case demonstrates that they can also function as strategic enablers. Through legislative innovation, political signaling, and institutional commitment, Congress contributed to the creation of conditions that made deeper strategic convergence possible.

This interpretation has implications beyond the bilateral relationship itself. As technology becomes increasingly central to international politics, the role of domestic institutions in shaping external partnerships is likely to grow in importance. Future strategic alignments may depend not only on shared geopolitical interests but also on the ability of governments to create durable institutional frameworks capable of supporting cooperation in complex technological domains.

10. Conclusion

The transformation of U.S.–India relations from a relationship constrained by nuclear disagreements and strategic divergence to one characterized by extensive cooperation in critical and emerging technologies represents one of the most significant developments in contemporary international politics. While geopolitical factors such as the rise of China, the emergence of the Indo-Pacific as a strategic theatre, and the growing economic importance of India have undoubtedly contributed to this evolution, this study has argued that congressional statecraft played a critical and often underappreciated role in facilitating and institutionalizing this process.

The analysis demonstrates that the U.S.–India Civil Nuclear Agreement constituted a pivotal turning point in bilateral relations. More than an agreement concerning civilian nuclear cooperation, it reflected a broader political decision to redefine the strategic relationship between the two countries. Congressional approval of the Hyde Act and related legislative measures enabled the United States to accommodate India's unique position within the global nuclear order, despite its status outside the Nuclear Non-Proliferation Treaty framework. In doing so, Congress helped remove a long-standing obstacle that had limited the development of closer bilateral ties for decades.

Using a historical-institutionalist perspective, the article has shown how the nuclear agreement functioned as a critical juncture that altered the trajectory of U.S.–India relations. Legislative action created new institutional pathways, generated political confidence, and reduced uncertainty regarding the durability of American commitments. These developments fostered a level of strategic trust that extended beyond the nuclear sector and facilitated broader engagement in defense, trade, maritime security, and technological cooperation.

The subsequent expansion of bilateral relations illustrates the phenomenon of policy spillover. Cooperation in one strategic domain created opportunities for collaboration in others, gradually transforming the relationship into a comprehensive strategic partnership. By the late 2010s and early 2020s, technology had emerged as a central pillar of bilateral engagement. Initiatives such as the Initiative on Critical and Emerging Technology (iCET) reflected a recognition that technological innovation, supply-chain resilience, and advanced manufacturing had become increasingly important components of national power and strategic competition.

The study further argues that congressional statecraft did not end with the approval of the nuclear agreement. Rather, it evolved in response to changing geopolitical and technological realities. Congressional involvement in export-control reform, defense innovation, industrial policy, semiconductor development, and technology governance has continued to shape the strategic environment within which U.S.–India cooperation operates. In this sense, Congress has functioned not merely as an oversight institution but as an active participant in the construction of a long-term strategic partnership.

The findings contribute to broader debates concerning the relationship between domestic political institutions and international strategic alignments. Existing scholarship often emphasizes executive leadership or structural geopolitical factors when explaining the emergence of strategic partnerships. While these variables remain important, the U.S.–India case demonstrates that legislative institutions can also play a significant role in creating the legal, political, and institutional foundations necessary for sustained cooperation. Congressional statecraft therefore deserves greater attention within studies of foreign policy and international relations.

The article also has important policy implications. As technological competition increasingly shapes global politics, the future of U.S.–India relations will depend not only on shared strategic interests but also on the ability of both countries to develop durable institutional frameworks for collaboration. Emerging sectors such as artificial intelligence, quantum computing, cybersecurity, biotechnology, advanced telecommunications, and semiconductor manufacturing are likely to become central arenas of cooperation. Sustaining progress in these areas will require continued political commitment, regulatory coordination, and investment in innovation ecosystems.

At the same time, challenges remain. Differences in regulatory approaches, concerns regarding intellectual property, technology-transfer restrictions, and evolving geopolitical priorities may complicate future collaboration. The success of technology partnerships will therefore depend on the capacity of policymakers to balance national

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interests with the benefits of strategic cooperation. Congressional support is likely to remain an important factor in addressing these challenges and maintaining policy continuity.

Future research may build upon the findings of this study by examining specific dimensions of technology cooperation, including semiconductor supply chains, defense-industrial partnerships, artificial intelligence governance, and digital infrastructure. Comparative studies involving other strategic partnerships could also provide valuable insights into the broader role of legislative institutions in shaping international cooperation.

Ultimately, the journey from civil nuclear cooperation to collaboration in critical technologies reflects a deeper transformation in the character of U.S.–India relations. It demonstrates how legislative innovation, strategic vision, and institutional trust can contribute to the creation of enduring partnerships capable of adapting to changing geopolitical circumstances. In an era increasingly defined by technological competition and strategic uncertainty, the U.S.–India experience offers an important example of how domestic institutions can influence the evolution of international order.

References

- Acharya, A. (2014). *The end of American world order*. Polity Press.
- Alden, C., Aran, A., & Vieira, M. A. (2021). *Foreign policy analysis: New approaches* (2nd ed.). Routledge.
- Bajpai, K., Basit, S., & Krishnappa, V. (Eds.). (2014). *India's grand strategy: History, theory, cases*. Routledge.
- Basrur, R., & Narang, V. (Eds.). (2018). *India's nuclear policy*. Oxford University Press.
- Bhasin, A. S. (2008). *India–United States relations: From estrangement to engagement*. New Century Publications.
- Brands, H. (2018). *The lessons of tragedy: Statecraft and world order*. Yale University Press.
- Breznitz, D. (2021). *Innovation in real places: Strategies for prosperity in an unforgiving world*. Oxford University Press.
- Brooks, S. G., Ikenberry, G. J., & Wohlforth, W. C. (2013). Lean forward: In defense of American engagement. *Foreign Affairs*, 92(1), 130–142.
- Campbell, K. M., & Doshi, R. (2021). How America can shore up Asian order. *Foreign Affairs*, 100(1), 123–135.
- Cha, V. D. (2016). *Powerplay: The origins of the American alliance system in Asia*. Princeton University Press.
- Chacko, P. (2014). The rise of the Indian state: Economic reform and geopolitical transformation. *International Affairs*, 90(2), 265–284.
- Chaudhuri, R. (2014). *Forged in crisis: India and the United States since 1947*. Oxford University Press.
- Clinton, H. R. (2011). America's Pacific century. *Foreign Policy*, 189, 56–63.
- Cohen, S. P. (2001). *India: Emerging power*. Brookings Institution Press.
- Cohen, S. P., & Dasgupta, S. (2010). *Arming without aiming: India's military modernization*. Brookings Institution Press.
- Copland, D. (2015). *Economic interdependence and war*. Princeton University Press.
- Destradi, S., & Plagemann, J. (2019). Populism and international relations: (Un)predictability, personalisation, and the reinforcement of existing trends. *Review of International Studies*, 45(5), 711–730.
- Doshi, R. (2021). *The long game: China's grand strategy to displace American order*. Oxford University Press.
- Farrell, H., & Newman, A. L. (2019). Weaponized interdependence. *International Security*, 44(1), 42–79.
- Farrell, H., & Newman, A. L. (2023). *Underground empire: How America weaponized the world economy*. Henry Holt.
- Friedberg, A. L. (2011). *A contest for supremacy: China, America, and the struggle for mastery in Asia*. W. W. Norton.
- Ganguly, S. (2010). *India's foreign policy: Retrospect and prospect*. Oxford University Press.
- Ganguly, S., & Kapur, A. (2017). *India, Pakistan, and the bomb: Debating nuclear stability in South Asia*. Columbia University Press.
- Ganguly, S., & Pardesi, M. S. (2009). Explaining sixty years of India's foreign policy. *India Review*, 8(1), 4–19.
- Gilpin, R. (1981). *War and change in world politics*. Cambridge University Press.
- Gordon, S., & McBride, J. (2024). Critical technologies and great power competition in the Indo-Pacific. *Survival*, 66(2), 45–68.
- Hall, P. A., & Taylor, R. C. R. (1996). Political science and the three new institutionalisms. *Political Studies*, 44(5), 936–957.
- Hass, R. (2020). *The world: A brief introduction*. Penguin Random House.
- Ikenberry, G. J. (2011). *Liberal leviathan: The origins, crisis, and transformation of the American world order*. Princeton University Press.
- Ikenberry, G. J., Mastanduno, M., & Wohlforth, W. C. (2009). *International relations theory and the consequences of unipolarity*. Cambridge University Press.
- Jervis, R. (1978). Cooperation under the security dilemma. *World Politics*, 30(2), 167–214.
- Joshi, Y., & O'Donnell, F. (2018). *India and nuclear Asia: Forces, doctrine, and dangers*. Georgetown University Press.
- Kania, E. B., & Costello, J. K. (2018). *Quantum hegemony? China's ambitions and the challenge to U.S. innovation leadership*. Center for a New American Security.
- Kapur, D. (2016). *Diaspora, development, and democracy: The domestic impact of international migration from India*. Princeton University Press.
- Kapur, S. P. (2007). *Dangerous deterrent: Nuclear weapons proliferation and conflict in South Asia*. Stanford University Press.

- Katzenstein, P. J. (2005). *A world of regions: Asia and Europe in the American imperium*. Cornell University Press.
- Keohane, R. O. (1984). *After hegemony: Cooperation and discord in the world political economy*. Princeton University Press.
- Khanna, P. (2019). *The future is Asian*. Simon & Schuster.
- Kliman, D. M. (2012). *The United States, India, and a rising China*. German Marshall Fund.
- Krasner, S. D. (1983). *International regimes*. Cornell University Press.
- Mahoney, J. (2000). Path dependence in historical sociology. *Theory and Society*, 29(4), 507–548.
- Mahoney, J., & Thelen, K. (2010). *Explaining institutional change: Ambiguity, agency, and power*. Cambridge University Press.
- Malone, D. M. (2011). *Does the elephant dance? Contemporary Indian foreign policy*. Oxford University Press.
- Miller, C. (2022). *Chip war: The fight for the world's most critical technology*. Scribner.
- Mohan, C. R. (2003). *Crossing the Rubicon: The shaping of India's new foreign policy*. Viking.
- Mohan, C. R. (2022). *India and Asian geopolitics: The past, present*. Brookings India.
- Narlikar, A. (2020). India's rise as a leading power: Promise and prospects. *International Affairs*, 96(4), 939–958.
- Nye, J. S. (2004). *Soft power: The means to success in world politics*. Public Affairs.
- Nye, J. S. (2011). *The future of power*. Public Affairs.
- Pant, H. V., & Joshi, Y. (2017). The U.S. pivot and Indian foreign policy. *International Affairs*, 93(1), 133–148.
- Pant, H. V., & Rej, A. (2018). Is India ready for strategic partnership with the United States? *The Washington Quarterly*, 41(2), 145–160.
- Paul, T. V. (2005). Soft balancing in the age of U.S. primacy. *International Security*, 30(1), 46–71.
- Tellis, A. J. (2005). *India as a new global power: An action agenda for the United States*. Carnegie Endowment for International Peace.
- Tellis, A. J. (2020). Are India and the United States destined to be allies? *Survival*, 62(1), 7–26.