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Growing cooperation between the United States and India in the digital realm presents significant opportunities in terms of investment, job creation, and deeper trade linkages. Deeper technological cooperation can also make a significant impact on improving social outcomes, particularly as they relate to empowering local communities by democratizing access. This cooperation has become even more imperative due to an evolving global strategic environment, in which change has been accelerated by the ongoing impact of the coronavirus pandemic.

The Atlantic Council's South Asia Center convened a number of experts to talk about how US-India digital cooperation can deliver social good, and ways in which key stakeholders—public and private—from both countries should think about achieving public-good outcomes.

The group discussed a whole host of potential areas of focus, including artificial intelligence, Web 3, semiconductors, and renewable energy. Also discussed were ways in which existing public infrastructure developed in India—such as the Unified Payments Interface (UPI), Aadhaar, and other components of India Stack—can be leveraged to deliver positive outcomes.

Key takeaways that emerged during these discussions were as follows.

1) It is important to identify and prioritize areas of mutual interest between the United States and India, including climate change, supply-chain resiliency, and healthcare.

2) Government and private-sector stakeholders should explore pilot projects that demonstrate ways in which technology can help deliver public-good outcomes.

3) Public-private partnerships will be critical to piloting and scaling potential solutions, including in the provision of necessary financing and access to data for specific projects.

The **South Asia Center** is the Atlantic Council's focal point for work on greater South Asia and the relations between its countries, neighboring regions, the United States, and Europe. It seeks to foster partnerships with key institutions in the region to serve as a forum for dialogues between decision makers in South Asia and the United States. Areas of focus include governance, trade and development, international migratory flows, traditional and non-traditional security, climate sustainability, energy, and other issues. The Center is committed to partnering with experts and stakeholders from both the region and the United States to offer critical analyses and practicable recommendations for policymakers.

4) Existing forums, such as the US-India CEO Forum, should be considered as mechanisms to explore new avenues, provided there are specific reforms.

5) Additional conversations are required among key stakeholders to identify and prioritize areas of cooperation, such that there is buy-in and interest among both the governmental and private-sector players to showcase the public-good potential of current and emerging technologies.

Potential Areas of Cooperation

Climate change represents a major risk to agriculture in both countries, particularly India. Deepening linkages between academics is important to ensure that the latest agritech research is shared between the two countries. This cooperation can open the doors to deeper public-private partnerships to deliver better agricultural outcomes in India, including through supply-chain optimization, and through collaboration with farmers and farmer producer organizations. One way in which this can be done is through pilot projects that leverage artificial intelligence, satellite data, and tools such as drones to improve crop yields. Data and best practices from these projects can be shared to increase access to knowledge and best practices across communities, leading to a sustained increase in agricultural productivity. There is already evidence that both public- and private-sector stakeholders are gearing up to take advantage of these opportunities—Cisco and Microsoft, among others, are reportedly exploring partnerships with the Indian government to boost agriculture productivity by leveraging cutting-edge technology.[1]

This also holds true for identifying water-consumption and scarcity challenges emerging due to rapid urbanization and climate change. Satellite imagery and advanced data analytics can help key stakeholders improve their forecasting and scenario-planning capabilities, which can then be provided to municipal authorities as part of an initiative that improves their resiliency.

India's desire to maintain momentum in terms of digital connectivity is another potential area of cooperation. To achieve its connectivity ambitions and build a state-of-the-art technology ecosystem, the country requires investment in semiconductor manufacturing; diversification of supply is also important for the United States' strategic objectives. From a public-good perspective, an emerging semiconductor ecosystem in India, which leverages the country's chip research and design capabilities, can create thousands of new well-paying jobs, accelerate the country's digitization push, and catalyze the creation of numerous new-economy businesses, particularly in Tier-II+ regions that have not yet fully embraced the digital revolution. The Indian government has already indicated its desire to promote local semiconductor manufacturing by recently approving a $10-billion incentive program.[2]

The satellite-communications sector is directly connected to this digitization push, and significant public good can be achieved by fully realizing the potential of this sector. Liberalizing the satellite-communications sector can help provide low-cost, reliable digital connectivity to millions of Indian citizens—this connectivity can bring about improved access to telemedicine, among other things. Technology cooperation opportunities between the United States and India in this space are significant, and should be explored. Such cooperation can also yield positive results in adjacent sectors such as agritech, where better access to data in rural communities will be essential in improving agricultural outcomes in India.

Dealing with Barriers to Progress

Several policy-level challenges need resolution in order to fully achieve the public-good impact of these technologies. Key among them are regulations related to data protection and localization. Given that pilot projects, particularly in the telemedicine and agriculture sectors, will require access to personal and nonpersonal data, it is essential that there be policy clarity on this topic. While India has released a joint parliamentary committee report on data, the finalization of a balanced policy and regulatory framework is critical.

India's desire to develop a redefined digital-governance framework is also an important development. But, US-India cooperation in the digital domain will require some level of consistency in regulations across both countries. Ensuring this consistency will be critical in furthering digital coopera-

1 Shruti Srivastava, "Amazon, Microsoft, Cisco Swoop in on $24 Billion India Farm-Data Trove," *Business Standard*, September 17, 2021, https://www.business-standard.com/article/economy-policy/amazon-microsoft-cisco-swoop-in-on-24-billion-india-farm-data-trove-121091700108_1.html.

2 Gulveen Aulakh, "Investment Flows to Set up Chip Units Likely by 2022-End," *Mint*, December 20, 2021, https://www.livemint.com/industry/manufacturing/investment-flows-to-set-up-chip-units-likely-by2022end-11639937779727.html.

tion between both the public and private sectors in the two countries.

Another way to circumvent bilateral issues is by expanding trilateral cooperation. An example of this could be US-India-Israel collaboration on cyber technologies, which could yield positive results. Ongoing India-UK negotiations could, formally or informally, seek input from both Israel and the United States in order to pursue early alignment that could then create opportunities on the bilateral front.

Finally, cooperation between US and Indian academia needs to be strengthened in order to improve access to data, cutting-edge research, and collaboration of future projects that can benefit the public and private sectors in both countries. Deeper academic cooperation should be explored in the fields of climate change and agritech, in particular.

Operationalizing US-India Cooperation

Achieving public good through technology requires cooperation between business, government, and academia, with input and involvement of local communities. This is why a public-private partnership model, in which key stakeholders work together to prioritize and operationalize particular projects, is going to be the most effective way to achieve the intended results.

There are existing forums where these partnerships can be discussed and prioritized, including the US-India CEO Forum. However, there is a need to ensure that the forum is empowered and has high-level participation from key stakeholders, and that working-level groups come up with measurable targets. Doing so could alleviate some of the issues that have plagued past efforts, leading to increased exchange of ideas and implementation of impactful programs. Such a forum can then become a long-term venue where leaders discuss key issues of interest, share relevant information with key government stakeholders, and operationalize pilot projects that can demonstrate public-good impact.

Another area of opportunity is to collaborate and align environmental, social, and governance (ESG) standards between the United States and India. ESG capital flows have continued to grow across the world, presenting an opportunity to fund high-impact social-good programs. However, competing standards make it difficult to pursue bilateral partnerships and cause delays, which, in turn, lead to limited impact on the ground. Alignment of ESG standards between the United States and India—or even the United States, India, Israel, and the United Kingdom—can unlock significant funding opportunities for projects that can deliver public-good impact in strategically important sectors.

Conclusion

Deeper US-India relations over time are going to create tremendous opportunities for trade and investment between the two countries. Maintaining momentum in this relationship requires that key stakeholders showcase the public-good impact of deeper cooperation. Such outcomes can broaden the number of constituencies invested in the long-term success of the relationship, and open avenues for the mutual resolution of issues that may prove to be barriers in the near and medium terms.

Participants were of the view that prioritizing public-private partnerships on key issue sets, including climate change and connectivity, should be the starting point. Early successes through pilot projects that are prioritized and executed through existing mechanisms, like the US-India Strategic Forum, can build confidence and momentum. This can then be leveraged to scale up promising projects and identify new pilots that can also demonstrate public-good value of technology to citizens in both countries.

It is important to point out that, while there are going to near-term challenges in the bilateral relationship, an evolving global environment makes it imperative that key stakeholders do not lose sight of the importance of long-term collaboration. Demonstrating public impact in key sectors can create an environment that builds trust and empowers key constituents to resolve outstanding bilateral issues. While continuous engagement on this key topic is necessary, it is important for the bilateral relationship to demonstrate public-good impact in order to build further momentum in the relationship.

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