

*Event Transcript*

**Southern Asia's Security Landscape: Views from Rising Analysts**

The Stimson Center

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*Featuring:*

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**Ladhu R. Choudhary**, Assistant Professor (Senior Scale) of Political Science at the Department of Political Science, University of Rajasthan

**Uzair Sattar**, (moderator), Research Associate with the South Asia Program at the Stimson Center

**Elizabeth Threlkeld** (opening remarks), Senior Fellow and Director, South Asia Program, Stimson Center

*Event Description*

Our Visiting Fellows present research that scrutinizes various critical issues regarding the security and stability of Southern Asia. These encompass frameworks for assessing nuclear confidence-building measures, Pakistan's cyber resilience and cybersecurity capabilities, Indian defense reforms, and tensions over sharing water between India and Pakistan.

*More information and event video available at:* <https://www.stimson.org/event/southern-asias-security-landscape-views-from-rising-analysts/>

*Event Transcript*

Uzair Sattar: Hi, everyone. I would like to introduce Elizabeth Threlkeld, Director of the South Asia program and Senior Fellow at the Stimson Center, to offer some opening remarks.

Elizabeth Threlkeld: Thank you, Uzair and all of you for tuning in. Whether you are here in D.C. or across the world, it is a pleasure to have you with us. It is a particular pleasure for me to welcome back our 2023 class of Visiting Fellows. Uzair will introduce them and their work here in a few minutes. I will have the pleasure of sharing a bit about the Stimson Center including our program and how the fellowship fits into it. As many of you know, Stimson was founded over three decades ago in the twilight of the Cold War, looking to capture lessons learned from that era, but also looking forward to emerging challenges on the horizon. The South Asia program was founded not long after. In fact, in 1993, we had the pleasure of welcoming our first cohort of [Visiting Fellows](#).

This is a tradition that has been at the core of our work in engaging with the region, especially India and Pakistan. Over the past 30-plus years, we have welcomed 131 Visiting Fellows to Stimson, and the four you will hear from today are the last in that legacy. We are also looking forward on the horizon to welcoming four new Visiting Fellows who will be with us this summer at Stimson. However, I am thrilled to have the opportunity to share a bit of what our 2023 cohort has been working on. They spent the past year researching various issues in India and Pakistan while spending the summer with us here at Stimson in D.C.

While they were with us, we took them around town to nearly 40 meetings, with over 50 people working in government, academia, and South Asia policy from various vantage points. It was a pleasure to have them with us in the office. We always learn a great deal from them, just as we provide them with exposure to a bit of policymaking here at D.C. They have also been contributors to South Asian Voices, our online policy platform. Today, they will be presenting their longer form analysis, of which a couple have been published, and the rest will be published on the Stimson website in the coming days. Please keep an eye out for them and bookmark those for your review. They are interesting, timely topics, and I am proud of them all for the work that has gone into them. Today's webinar is an opportunity for the fellows to solicit your feedback, share their ideas, and hopefully answer some tough questions. Do keep those questions coming in so that we can consider new angles of analysis.

You will be hearing their insights on a range of topics on nuclear risk reduction between India and Pakistan, transboundary water sharing through the Indus Waters Treaty, deterrent stability in Southern Asia, and Indian military reform since 2014. All of them are key and timely topics, and I look forward to hearing what our visiting fellows learned over the past year. I will turn things back over to you, Uzair.

Uzair Sattar:

Thank you, Elizabeth, and thank you to everyone joining. Whether it is morning or evening for those based out of South Asia, it is a pleasure to have you here. My name is Uzair Sattar. I'm a Research Associate with the South Asia program at the Stimson Center and the project lead of our Fellowships portfolios. I'm delighted to welcome you to this event and introduce the 2023 Visiting Fellows. Dr. Ladhu Choudhary is an Assistant Professor at the Department of Political Science at the University of Rajasthan. Dr. Mohammed Shareh is an Assistant Professor at the Department of Political Science at the University of Punjab in Lahore. Ms. Haleema Saadia is a doctoral candidate at the National University of Science and Technology, commonly known as NUST in Pakistan. Finally, Ms. Anuttama Banerji is a researcher with the National Maritime Foundation.

The way this event will go is that we will open the floor for initial remarks from our four panelists and then move on to a moderated Q&A session. Dear audience, please leave your questions in the Q&A box function at the bottom of the screen and we will try to get to as many of them as possible over the next hour. To kick things off, Ladhu, I would like to start with you. With elections underway in India, voters are adjudicating progress on campaign promises, key reforms, and various policies that the administration has been enacting. I know you have been keeping a close eye on Indian military reforms since 2014, and I would be interested if you could walk us through the changes that you have seen in Indian military modernization, especially within a changing strategic environment in South Asia. Please also highlight some key features that stand out and things you are looking forward to going ahead.

Ladhu R. Choudhary: Thank you, Uzair. Good morning and good evening to all who are tuned in from their respective geographical locations. At the outset of this presentation, I would like to state that I am grateful to the Stimson Center for providing extreme support for this policy memo on India's defense reforms and military modernization. This topic is very important in the present context of the ongoing elections and Indo-U.S. strategic defense cooperation. Let me state that the BJP traditionally has been contesting in the elections based on issues of national security, and it has been their prime focus for many years. Specifically, the Modi government came up with two very important promises in 2014, which they repeated in 2019. It promised to reform India's high defense organizations to enhance India's military effectiveness. I will demonstrate the trends and traits of India's military reforms and modernization under Prime Minister Modi over the last 10 years. I will also explore how Modi's military modernization programs have complicated India's military integration and jointness.

For this exploration, I need to bring out a critical analysis of four significant variables. This includes the financial support for the (1) initiated modernization projects, (2) the dynamics of higher defense organizations and the reforms initiated regarding them, (3) the level of legislative backing for initiated reforms, and (4) the kind of vigor and rigor by which the Indian government modernized the military considering the threat of China and other emerging security concerns. A critical analysis of these variables suggests that the Modi government has undertaken ambitious and far-reaching proposals for military modernization. However, most of these efforts for military modernization had a suboptimal transformational effect on military effectiveness, defense preparedness in the face of complex national security challenges, and in building a robust defense industrial ecosystem for India.

India has lacked financial commitment to military modernization initiatives. It has historically had an inadequate, underutilized, or

mismanaged defense budget for modernization. The Modi government has constituted two important committees, the Shekatkar Committee, and the Defense Planning Committee under the chairmanship of the National Security Advisor. These two committees' mandate were to devise a comprehensive integrated defense planning prospectus and to ensure the optimal use of scarce resources by minimizing duplications and fast-tracking defense procurement.

However, records from these committees and the status of the defense budgets issued in the last 10 years reveal inherent structural problems within India's higher defense organizations and a lack of adequate financial support. This is consistent with historical trends and, therefore, I would say there is no significant change. This is because higher defense organizations are parochially organized. This means that the SDO, DRDO, and other units are not in sync with each other. Despite the creation of the Department of Military Affairs and the Chief of Defense Staff positions, this problem has not been resolved, and therefore there is a trust deficit. Why is there a trust deficit, and why are these military modernization moves not addressing these limitations? Because these newly initiated military modernization efforts are not properly legislated and have not been properly allocated or debated within the Parliament.

Therefore, my suggestion is that considering the threat of China, India's global rise, and India's ambitious commitment to a free and open Indo-Pacific rule-based order, India must reorient its military missions. If we look at the four important initiatives undertaken by the Modi government, they do not reveal a good picture. For example, the status of the Defense Planning Committee, constituted in 2018, is unknown today. The problem with the committee is that the NSA is overburdened, and multiple other organizations have the same mandate. Similarly, in 2018, before the last general election in April 2018, the Modi government announced a Tri-Service Command for cyber special operations and space warfare. These commands, as of today, remain underutilized and parochial politics get in the way of bringing up those commands.

Furthermore, in 2019, the Department of Military Affairs and Chief of Defense Staff were appointed. It was a revolutionary step in a sense. However, the mandates of the DMA and Chief of Defense Staff, which are the creation of integrated theater commands and the institutionalization of jointness between the three services, have not been fulfilled. In a way, these two organizations were not constituted as per the committees' reports. Rather, they were a piece of the existing Integrated Defense headquarters. Therefore, considering these limitations, I offer four policy recommendations.

First, the Indian political class should take its military governing role seriously in terms of providing political guidance, political oversight, and legislating the initiated reforms. Second, the Indian government should constitute an independent panel of experts to evaluate the progress of modernization in the last 10 years. This must be debated within parliament, and the political class must take an active role.

The committee's evolution and any political directives to reorient military goals must be based on India's changing threat scenario, including India's strategic partnership with the U.S., threats from the maritime domain, and threats from China. In this regard, I would argue that to reform, legislate, and reorient India's military modernization, India should foster stronger relations with its strategic partner, the United States of America. This relationship can provide many things that India's military modernization is suffering from. Thank you, and I'm looking forward to your insightful observations, comments, and questions. Thank you for listening.

Uzair Sattar:

I would highly recommend folks to check out Ladhu's policy memo on the Stimson website. He touches on all of these issues in much greater detail. I'm going to build on your last point on a deepening U.S.-India relationship to help plug gaps in military modernization. It is under those external contexts that Pakistan may be viewing India's modernization efforts and reforms as a whole. Shareh, I know you spent a lot of time during the fellowship trying to understand how emerging technologies and cybersecurity dynamics within the region are impacting deterrent stability between India and Pakistan. Do you have a perspective on how these emerging dynamics, coupled with indigenous reforms on both sides, might impact deterrent stability in South Asia?

Dr. Muhammad  
Shareh Qazi:

Thank you, Uzair. I would first like to extend my humble gratitude to the Stimson team for keeping my policy memo in control. The dynamics kept changing with new technologies being added to the military hardware and doctrines. My policy memo was about the concept of revolution in military affairs (RMA). Each technology added to the military hardware directly influences how states will then build their doctrines and calibrate their armies to adjust accordingly. Two nuclear-armed states with a growing trust deficit and a lack of communicability are undergoing RMA. How far would that be carried by these two states individually, and how far would it be carried if they get support from their strategic partners?

Pakistan gets support from China, and the U.S. supports India. This somehow galvanizes each state's approach toward an RMA. Here, there are two issues. The first is an offset problem where each military would be aiming for significant changes in their military strategy to counteract the adversary. The second is the overmatch dilemma, where they would significantly outperform the adversary by trying to outwit, outgun, and

outman the competitor in this game. In a nuclear deterrence environment, offset and overmatch are not positive notions; rather, they are challenges to be dealt with. Thus, if an army is strategically maneuvering to induct new weapons systems and is adjusting its entire military accordingly in an environment full of trust deficits, then new technologies tend to create a lot of potholes as far as communicability is concerned. This type of RMA, involving the introduction of off-the-battlefield weapon systems, cyber and electronic warfare systems, and on-the-battlefield weapon systems, will have a significant effect, according to my research.

We conducted three levels of analysis on RMA. For the first level, considering that the U.S. and Soviet Union already had experience with the nuclear age being the third military offset, could this be replicated or duplicated in South Asia? That was the first major concern. For the second level, keeping in mind Operation Desert Storm and Desert Shield, where RMA was put into effect, is there a learning curve of caution and adventurism for states that wish to engage in RMA? Finally, the third concern was: if two nuclear-equipped militaries experience an RMA but lack communication and fail to resolve the crisis, how would this affect a future war if third-party intervention or abrupt termination occurs without mitigating the conflict?

During my research, I found out that these three questions are serious concerns. If you are inducting new technologies, whether it is for your command and control, doctrines, war fighting capabilities, or just an overhaul of your military hardware, there will be serious consequences. This is because there is a blame loop that exists in South Asia, which does not let conflict transform positively. Either there is crisis termination with limited mitigation or third-party intervention, which is not that long-lasting.

If the policy memo offers a selection of solutions to Pakistan and India, let us suppose we ask them not to engage in an arms race by adding arms control layers to their modernization paradigms, would that work? The second question is, if this project is initiated, will it be so novel that these two states will be hesitant to try it out? Thirdly, would it require third-party mitigation? Would the major sources from which they receive this assistance, such as their strategic and great power partners, play a role in instituting this control mechanism? For the first question, we found out that while an arms control mechanism may be necessary, it is not desired right now. The Pakistan Army, as well as the Indian Armed Forces, are currently modernizing at a very fast pace.

In this instance, talking about a control mechanism or installing a safety net is not a concern right now. This means that the second question was also answered in a tricky manner. It is not novel because they already have

risk-reduction mechanisms, treaties, and obligations. The performance of those is not the concern of my policy memo. Maybe Haleema will delve into it in more detail. Because of its novelty, there is room for it to be done. For the third question, my policy memo attempts to address it and concludes with four lines of argument.

The first line of argument is that each new technology added to any military hardware requires caution, even at a national security level, and regardless of whether a nuclear adversary is in question. Number two, there are institutions being built in India and Pakistan designed to offer some risk reduction consolation for these technologies. Conversations about how advancements in drone warfare, ISR capabilities, submarine warfare, and missile technologies will heighten crisis risks are circulating in think tanks and policy forums. In the policy recommendations, we emphasized that while cyber insecurity, electronic warfare nexus, and advancements in ISR capability are integral to military modernization and RMA and, thus, a national security requirement, they must be approached with caution.

For both the U.S. and the USSR, RMA was a likely possibility. However, they were still entering into agreements for risk reduction, which is a major cause for concern. It does not tread on the sensitivities that Pakistan and India have, but it does address the core problem of mutual risk. The madman scenario needs to be addressed because the more you offset or the more you overmatch, the more you intensify the risk of escalation in a crisis.

We were lucky that we were able to avoid one in 2019 and then in 2022. However, in the future, when new machines take over, when ISR capabilities are further enhanced, and perhaps autonomous weapons systems are put into place, because these are also some parts of the conversation in both countries, the canvas of this battlefield from a battle space to a battle sphere would automatically necessitate the risk reduction on their end. Thank you all, and I'm looking forward to your questions and answers.

Uzair Sattar:

Those are worthy points, Shareh. Picking up on your initial context of low trust between India and Pakistan, in an environment of low trust and a lack of dialogue with both countries modernizing, there is a feasible risk of entering a new phase of an arms race. This is especially the case in a bilateral context but also within the wider context of the strategic chain where third parties like China and the U.S. are impacting how India and Pakistan are seeing their threat perceptions evolve and change. Haleema, I want to come to you. I know that you have been looking at the salience and significance of existing confidence-building measures and have spent a lot of your time in the fellowship reviewing them. How do you see the

state of nuclear CBMs, the feasibility of moving towards new CBMs or strengthening these existing ones? How does that feature in the future of nuclear risk reduction in South Asia?

Haleema Saadia: Thank you, Uzair. First, I would like to express my gratitude to the South Asia team at Stimson for their constant support as I carried out this research. In response to your question, my policy memo raises questions regarding the sufficiency of existing nuclear CBMs in fostering confidence and trust between India and Pakistan. I have reviewed the implementation of the existing nuclear CBMs between the two countries by developing a framework, and I have analyzed the impact of these nuclear CBMs on nuclear risk reduction in South Asia. The policy memo also identifies some concerning trends in their bilateral relationship. Lastly, I will share some policy recommendations from the memo.

Moving on to the issue of nuclear CBMs, I will talk about their history. Overall, both states have agreed to four nuclear CBMs over the last 40 years. The 1988 nuclear non-attack agreement predates the country's overt nuclearization by a decade. As of 2024, it has been 17 years since the last nuclear CBM agreement was signed and a decade since the last nuclear dialogue between the two countries. At first glance, it appears that the nuclear CBMs have endured and met their initial objectives. Islamabad and New Delhi share the list of their nuclear facilities as per the non-attack agreement, like clockwork on January 1st each year, and this is a practice that they have continued for three decades without fail. Both states usually notify each other of their ballistic missile tests, and as there have been no accidents involving nuclear weapons in either country, the 2007 agreement remains untested in real-life situations. Finally, the hotline provides direct communication between foreign secretaries to resolve misunderstandings.

To critically analyze the NCBM regime between Pakistan and India, I have developed a framework that analyzes the implementation of these CBMs against nine parameters. The goal of selecting these parameters is to ensure this research has empirical validity, policy relevance, and case study applicability. I will briefly talk about some of these parameters now. For example, let us take the issue of scope, which is limited and narrow for all these CBMs. In the case of the non-attack agreement, even though the lists are shared every year, these are incomplete, which makes this practice largely symbolic. The same agreement defines the term nuclear installation or facility but only vaguely describes the word attack, which is its main purpose. The 2005 missile pre-notification agreement only includes ballistic missiles and leaves out cruise missiles. The 2007 agreement on reducing risk from nuclear weapon accidents did not include accidents involving nuclear and radioactive materials in the peaceful nuclear programs of the two countries. Yet, such instances can lead to

transboundary contamination and should ideally be covered in the agreement.

Another parameter is regularity, where the CBMS performed slightly better. For the non-attack agreement, the two states have shared their lists consistently for 33 years. In the case of missile test pre-notifications, there are conflicting views regarding the notification of short-range ballistic missile tests, but they have largely been adhered to. For the 2007 agreement with no reported nuclear weapon accidents, its effectiveness remains untested, and the hotline has never been used. One such missed opportunity was on March 9, 2022, where a call from the Indian foreign secretary to his Pakistani counterpart to inform him of the BrahMos missile misfire could have established communication and built trust. Other than that, India-Pakistan nuclear CBMs do not fare well in the three interrelated parameters of irreversibility followed through and diffuse reciprocity.

Moving on to the issue of nuclear risk reduction, the impact of nuclear CBMs on enhancing strategic stability, crisis prevention, and escalation management remains limited as crises and military standoffs continue to occur despite these measures. However, advanced notification of ballistic missile tests has increased predictability. Missile tests during crisis situations emphasize the determination to deter the adversary, while advanced notification gives an uneasy, yet necessary assurance that the other side is still complying with its obligations and is not unraveling the situation. The most crucial nuclear CBM during a crisis, however, is the foreign secretary's hotline, and ironically, it has not been used in any India-Pakistan crises as far as we know. This lack of communication and the absence of expert-level dialogues on nuclear issues between the two countries for more than a decade are not promising signs for nuclear risk reduction in South Asia.

This brings me to some concerning trends in the bilateral relationship between India and Pakistan and their NCBM regime. First, the smooth implementation of existing nuclear CBMs will not be possible if one or both states do not see the value of these measures as trust-building and transparency-enhancing. Secondly, weakened dialogue and communication facilitate a gradual transition from diluted commitment to bilateral obligations to complacency in compliance, potentially leading to complete abrogation of agreements. Particularly concerning is the ease of reversibility of existing nuclear CBMs, with minimal consequences for either state.

Third, it does not appear likely in the short term that both states will institute a verification regime for nuclear CBMs. Despite the obvious benefits of confidence in trust-building, for two states with high levels of

distrust, it is quite ironic that India and Pakistan simply take each other's word on compliance with bilateral obligations. Fourth, the stalled diplomacy could give rise to increased misinterpretations and misperceptions. What does this tell us about the prospects for nuclear arms control between the two countries? It is essential for both states to engage in a sustained nuclear dialogue, improve the implementation of existing nuclear CBMs, and enhance their scope and obligations. Negotiating new CBMs can facilitate a more conducive environment for comprehensive and substantive arms control measures. Two areas where they can make progress may include introducing monitoring and verification to their existing nuclear CBMs and secondly, establishing nuclear risk reduction centers.

Lastly, I would offer three policy recommendations for how India and Pakistan can negotiate and implement nuclear CBMs. First, they should resume bilateral dialogue that is focused on nuclear issues, including nuclear CBMs, and actively avoid contentious political issues. There is precedence for progress occurring during times when nuclear dialogue was sustained. For example, during the composite dialogue process, both states were able to agree to three nuclear CBMs in four years. The two countries should have a mechanism to review the implementation of existing nuclear CBMs and adjust as challenges arise or opportunities appear. Lastly, both states need to improve their crisis communication practices and use the existing hotlines between senior civilian and military officials. This would help avoid miscalculations and enable off-ramps during future nuclear crises. I will stop here, and I look forward to the ensuing discussion. Over to you, Uzair.

Uzair Sattar:

Thanks, Haleema. Her policy memo is also on the Stimson website, and I would recommend everyone to give it a read. As you have laid out, there is such a large scope for improving nuclear CBMs and moving towards new avenues of trust-building within that domain. There are also lessons for the world on keeping the salience of CBMs, such as the Nuclear Non-Attack Agreement, which, to my knowledge, would have been particularly helpful if adhered to during ongoing crises. Your memo does a good job of taking stock of the CBMs that we have before making your recommendations for options going ahead.

We will be moving on to an audience Q&A session after the next speaker. Please do indicate your name and affiliation as you ask questions in the chat box at the bottom of the screen, and we will try to get through as many as possible.

The common theme throughout these conversations is trust building. Anuttama, a key component of trust building between India and Pakistan since 1960 has been how the two countries have shared water resources

and shared an understanding of how to disagree about disputes that come with water resources, which is codified in the Indus Waters Treaty. Despite the ebbs and flows of the India-Pakistan relationship, we see that the treaty is still being adhered to and has endured. How do you envisage the treaty itself as a factor in confidence building? How do you see its future in a potentially more tumultuous relationship going ahead?

Anuttama Banerji:

Thank you so much, Uzair. That is a great transition point, and I would like to say at the outset that this water treaty is actually the most enduring confidence-building measure between India and Pakistan. On that note, a brief understanding of what the treaty is essential, and I would like to expand on that as well. In general, the rivers in South Asia are a synonym for the region's openness to the world. As geospatial entities, rivers are imbued with a lifelike quality, so it is important to discuss issues of both high and low politics. What constitutes low politics is also highly contestable. I'm immensely grateful to the Stimson Center for giving me the opportunity to work on this subject because the water issue is becoming extremely significant and requires our due diligence and attention.

For the people of South Asia as a geospatial entity, they have a transformational role in shaping societies. We must examine the importance and enduring nature of the Indus Waters Treaty.

I chose this research project because I went back to Pakistan in 2010 and I had the opportunity to see the impact of the floods and understand what that entailed. As we all know, the floods re-occurred in 2022 as well. I realized that this issue was equally significant as the others, be it on questions of military reform and, of course, the nuclear CBMs that Haleema spoke about. The immediate context for my research also relates back to India's demand for the modification of the treaty, which came through from the Indian side in January 2023, where they cited intransigence by Pakistan.

For those who are not well versed with the treaty, I just wanted to give a brief introduction to that as well. The Indus Waters Treaty (IWT) is a water distribution agreement that was signed between India and Pakistan in 1960, and roughly 300 million people in India and Pakistan live in the Indus basin. The river tributaries in the basin cover 65% of Pakistan's drainage area and about 14% percent of India's drainage area and act as a source of water to countless people. Its relevance cannot be underestimated.

Briefly, the Indus Waters Treaty divides the Indus River basin between the two neighbors. India was allocated the three Eastern rivers, Ravi, Sutlej and Beas, and Pakistan exercises control over the three western rivers,

which are Jhelum, Chenab, and the Indus itself. What is unique is that this is the only treaty of its kind that is a section of a river system. The inherent inbuilt conflict resolution mechanism within the treaty is its greatest strength. It ensures that both countries, despite the plethora of problems that they face, can sit at the negotiating table, have a discussion, and try to resolve issues in an amicable way. If not, it at least provides an environment to try to resolve issues in an amicable manner.

The IWT is a confidence-building measure between two nuclear-armed neighbors. It provides India and Pakistan with the ability to deliberate on issue areas. Politicization of the IWT has also become very common, if you look at the media reports. The treaty itself is the most significant dispute resolution mechanism that is present between India and Pakistan. Unfortunately, the politicization of the treaty has become commonplace because of terminological exactitude since there is no clarity between what constitutes revision, abrogation, or even modification. That is one of the things that I found extremely relevant during my research because there is no clarity. One of the reasons for that is that the treaty is highly technical in nature, and it requires an understanding of geography, hydrology, and other subjects, which are also not very easily understood by the general populace.

Moreover, because of this, the politicization of the treaty and its use has led to both countries finding it difficult to come to the negotiating table. It has led to further complications in the bilateral relationship as well. In my opinion, one more key thing that needs to be pointed out here is that both countries have used the treaty for their own mutual benefit. While the treaty is a key confidence-building mechanism, we have not been able to construct, provide, or build a narrative around the treaty that enables us to understand the benefits that people accrue from it.

This leads me to the point of water stress and climate change in South Asia. Our problem lies less with the treaty and more with the internal mismanagement of water resources, which is quite rampant across the region. For instance, India uses 95% of its water in the eastern flowing rivers while continuing to be water-stressed. Pakistan also faces its own challenges of climate change, glacial melt, flooding, droughts, etc., which do not necessarily have any connection with the treaty as it was.

Can we wither the Indus Waters Treaty? I do not think so. I believe it continues to be enduring. However, we could potentially incorporate these concerns within the treaty at the Indus Waters Commissioner's level. They can negotiate these issues, especially those related to climate change since that was not really a concern in 1960 when the treaty was signed.

Based on my assessment, I have come up with a few suggestions. First, we need to build on the Indus Waters Treaty as a tool of dispute resolution for bilateral climate-related issues. Public engagement on the treaty at the track 1, 1.5, and 2 levels will ensure that India and Pakistan have the opportunity to negotiate on other issues as well. We need to accord priority to the Indus Waters Treaty in that sense. Similarly, India and Pakistan must recognize the presence of juridical and non-juridical techniques within the IWT that enable dispute resolution. The fact that we have been able to do that without third-party intervention for so long is credible, and we need to recognize this. People should be made aware of the benefits that the countries have accrued because of the treaty.

My final point relates to the improvement of domestic water resources and their management in both India and Pakistan. India and Pakistan are both water-stressed countries, but that does not necessarily mean that the treaty is to be blamed for that. Over the year, I learned about how we have not been able to optimally utilize our resources. This relates to issues of groundwater depletion and other concerns which have not been addressed. For instance, look at India's Sutlej-Jhelum link canal. The complete construction of the canal would facilitate the optimal use of water resources available within India for the agricultural communities in India's Punjab, and that could improve the situation within India. Pakistan can also adopt integrated watershed management systems to reduce its wastage of water resources. That could be something that both countries could look at and work on.

Similarly, they could also reduce their dependence on water-intensive crops. For instance, India largely grows paddy, which is a water-intensive crop, and Pakistan grows sugar. Growing such crops has led to additional water stress in both countries. Those reforms can be undertaken instead of trying to renegotiate, abrogate, or call for treaty revisions on any grounds.

I would like to conclude by saying that the IWT is a very robust treaty, and its inbuilt dispute-resolution mechanism enables it to remain an enduring treaty. With climate change emerging as a potential security threat and keeping in mind the upper and lower riparian dynamics, the treaty does require modifications. However, modifications or revisions should be done carefully without losing the true essence of the treaty. I will leave it at that and hopefully answer some questions.

Uzair Sattar:

I'm going to take the moderator's prerogative and ask a question to all four panelists. Thus, I would appreciate brevity in the responses. This goes back a little bit to the first context that undergirded Ladhu's remarks, which is elections in India. All of you have made policy recommendations that span various time periods and various issue areas. However, post-Indian elections, do you see, or are you looking for, any significant

developments that might lead to a slower but surer process of stabilization between India and Pakistan? This could be through military-to-military engagements, water sharing co-operations, nuclear risk productions, emerging tech, or anything else. In your capacities, how are you viewing the next phase of India-Pakistan relations post-elections? I will begin with Haleema.

Haleema Saadia: Yes, absolutely. It is specifically in the context of nuclear issues and the nuclear dialogue between the two states. We have not seen any movement in the past decade or so. I would say that directly coincides with Modi coming into power, so that is one other thing that we have witnessed. It felt like India was moving away from, or perhaps was not really interested in continuing even the composite dialogue process, even before Modi came into power. Of course, once Modi was in power, it more or less became a policy from the Indian side to not talk to Pakistan about nuclear issues. In the short term, I do not see any changes unless Modi decides to have a change of heart and decides to talk to Pakistan. Pakistan has extended the offer to resume talks multiple times. One can hope that the situation will change and that the Modi regime will have a change of heart, but I see very little prospect of that if Modi stays in power.

Anuttama Banerji: I am an optimist, and I hope that we see some degree of change in terms of India and Pakistan heading to the negotiating table. Having at least a resumed dialogue process would be a basic step.

Dr. Muhammad  
Shareh Qazi:

I would like to add to this particular dimension of the question. With every upcoming election, there is this sentiment both in Pakistan and India that national security is a primary priority. India must consider the China threat and its strategic partnership with the U.S. which requires it to take practical measures that we are currently seeing in their military modernization paradigm. The sentimentality of conversation would be hinged upon how seriously a threat could be identified between the two.

Even if there are chances of conversations between Pakistan and India, the idea of how the globe is currently dealing with conflicts and crises somehow adds to this ease of warfighting. These emerging technologies and new weapon systems make warfighting easy, even though it should have been the other way around. It is now going in this direction. For any government anywhere dealing with national security as a primary priority, this ease of continuity of warfare would be a major downturn for conversation or communication.

Ladhu R. Choudhary: I would say that this will depend on the situation and the outcome of the election. If the same regime repeats, the situation will not have any significant improvement. It will be the same because the Modi government is making statements during the election about how India has

already dealt with Pakistan and terrorism well. Thus, there is no more talk about Pakistan, and from the Indian perspective, the government thinks that isolating Pakistan works well.

More importantly, in the last election and the general elections, national security was a major concern. However, despite the terrorist attack in Jammu and Kashmir two weeks ago, the BJP has chosen not to make this an agenda for the election. I'm not very optimistic.

Uzair Sattar:

Just pivoting from here to the audience Q&A. Here is a question from Abdul Samad, which might be suited for Ladhu and Shareh. With relation to RMA or revolution in military affairs in South Asia, which technologies would you say are the most destabilizing and disruptive?

Dr. Muhammad  
Shareh Qazi:

I will go first, and then Ladhu can chime in. Samad, the major concern would be the use of unmanned combat platforms. In January 2021 the Indian Army demonstrated 75 drones that were flying in a swarm formation. Pakistan, in those similar timelines, was the fourth country to induct unmanned combat aerial vehicles. The insistence on using these technologies in both countries, at this point, is a significant concern. They are upgrading unmanned combat systems and overhauling their command-and-control systems to better suit this type of warfare, which is a major concern in the RMA for combat effectiveness.

Ladhu R. Choudhary: Gray zone warfare will be guiding the military reforms that both countries will undertake. Drones and cyber will be key concerns. From an Indian perspective, special operations are important because India has not been able to properly resolve the threat of terrorism. There could be new measures integrated into India's existing counter-terrorism strategy. This could potentially be helpful for Pakistan, given the current situation.

Uzair Sattar:

Question here from Bashir Abbas: apart from the now suspended Intermediate-Range Nuclear Forces Treaty between the U.S. and Russia, which included limitations on the American BGM-109G cruise missiles, are there any examples of agreements between two nuclear weapons states? If yes, what lessons could India and Pakistan learn? If not, then what incentives could India and Pakistan have to push for such an agreement?

Haleema Saadia:

On the issue of pre-notification agreements for cruise missiles, there are not many direct precedents for India and Pakistan. You mentioned one, but perhaps that is the only one. When the ballistic missile pre-notification agreement was being negotiated, Pakistan did propose for India to include cruise missiles into the scope of the agreement. At the time, India refused to do so. By omitting cruise missiles, the danger of misinterpretation of missile launches and perhaps deployments remains unaddressed. We

encountered the risks of not having a pre-notification agreement for cruise missiles in 2022 during the BrahMos missile misfire incident. One thing I should mention is that a pre-notification agreement would not have prevented an accident or that misfire. It would have prepared Pakistan better to anticipate the missile test and prepare for an eventuality or contingency if the missile veered off course.

If another layer were added to this pre-notification agreement in the context of cruise missiles, it would mean that there was another reason for the two states to communicate. It could have been handled more effectively. If a framework had been in place, it would have provided a basis for India and Pakistan to address any misfires. Having said that, even now, if India and Pakistan decide to include cruise missiles, the issue of misinterpretation and misperceptions would be addressed, especially during times of crisis. It would be another avenue for the two states to build trust.

Uzair Sattar: A question from Sophia Kierstead, which is addressed to Ladhu: what steps do you recommend for addressing the challenges of weak indigenous defense production and enhancing India's self-reliance in defense manufacturing and technology?

Ladhu R. Choudhary: The first measure that the Indian government should take is to develop a cordial organizational ecosystem to enhance the indigenous defense ecosystem and industrial base. For that, the Indian government needs to invest more in defense R&D. India needs both capital and technology. It can get more help from its strategic partners, including the U.S. or France.

When we talk about “indigenous,” there is nothing in the contemporary context of warfare technology that a country can produce domestically. It must be produced by international cooperation. There is too much emphasis on indigenous development in India, which suggests something about India's hangover with the post-colonial discourse of producing indigenous technology. From my vantage point, there are all kinds of advanced military technologies that India can collaborate over with other strategic partners. India can get these technologies and produce or manufacture them by themselves.

Uzair Sattar: We have been getting a few questions on drones, so I'm going to try to merge them all together. With lessons being learned in India and Pakistan from external conflicts, be they Armenia-Azerbaijan, Russia-Ukraine, or Iran-Israel, we have seen drones taking a significant role in modern warfare. How would you see them fitting in as emerging technologies in the escalation ladder and military dynamics between India and Pakistan?

Dr. Muhammad  
Shareh Qazi:

In the modern discourse on revolution in military affairs, drones have consistently outperformed on the battlefield, excelling in surveillance, targeting, and reconnaissance missions. India and Pakistan's insistence that they would continue modernizing, building their drone swarms, and investing in unmanned combat platforms on all three domains of war—land, air, and sea—would cause significant challenges in how India and Pakistan navigate the first few rungs of the escalation ladder.

Conventional escalation between Pakistan and India is usual when crises and conflicts come up. Drone technologies deploy sub-tactical precision targeting, which is a very controversial part of RMA. This can lead to conflict escalation, which is dangerous in a nuclear environment.

There are no control mechanisms for these technologies right now. International communities have found loopholes and gray areas where these technologies can be used for military purposes but without weaponization through precision targeting.

Adding a new dimension to this, if I may. Pakistan and India believe that lethal autonomous weapon systems are unethical and they should not be made a part of any military, and they should not be used. However, the more the international community uses these technologies, the more implications there will be. The more autonomous weapons systems are proven to be, the more proficient they are and can provide an overmatch capability while encountering an adversary. This would generate more demand for both parties to engage in the development of these technologies, be it theoretical or practical. In my opinion, this idea of finding convenience in engaging in a conflict or crisis at a sub-tactical level without any human beings involved surely raises quite a lot of alarms at the first rungs of the escalation ladder. It quickens it up.

Uzair Sattar:

I'm going to go back to Anuttama. Anuttama, you had a question from Daniel Haynes on whether you see a scenario where public narratives and political narratives might allow for genuine cooperation among India and Pakistan on water issues instead of a separation or bifurcation of the river basin, which the current treaty does.

Anuttama Banerji:

The treaty definitely has the ability to emerge as a genuine cooperative mechanism between India and Pakistan. I have looked at it closely. The problem lies at the level of narrative building and narrative construction because there is no clarity on the terminologies that are there. There is little information in the public domain related to what the treaty entails. People use the treaty as an object of public bashing, which is unfortunate. Since the treaty was signed in 1960, there has been no debate in the public domain about the treaty's relevance, or at least genuine information has never been provided to people on both sides. For the treaty, as something

with a legal connotation, there is little information about it and little discussion about it due to its technical nature.

Moreover, since water itself is such an important attribute, it has such a binding role in our society and something that affects people at every level. When you do not have access to water resources, I think it is very easy to target the other. The us versus them narrative gets reinforced when it comes to water treaties. We do not have information about the flow of the rivers, how much water we are getting, and how much water Bangladesh is getting. It is a good example because water issues have an emotive element as well, which leads people to attaching great importance and relevance to water. That is why you find mnemonic communities that have these discussions in their living rooms. These have become everyday topics of discussion, with people asking, “Why is this not happening? Why is that not happening?”

Genuine discussions can happen at track one and two levels, where people can negotiate, talk, and deliberate more on what the treaty is about. They can ensure that the treaty is read in its entirety and becomes a part of course syllabi as opposed to just being the Indus Waters Treaty, which was signed between India and Pakistan in 1960, period. That will lead to a change in perspective. It also requires an understanding of the issue at large, where water issues gain primacy as opposed to just water disputes. Perhaps this can happen at the school level and textbook level. Perhaps we can hope for it to become a genuine cooperative mechanism between the two countries.

Uzair Sattar:

Grateful for your response. Haleema, coming to you, the last crisis between India and Pakistan was in 2019. We saw the dynamics play out, but the fog of war sometimes stops us from being able to critically analyze the role CBMs played during the escalation itself. Regarding the non-crisis in 2022, with the accidental missile firing from India to Pakistani territory, as you analyzed the events of that day and the aftermath, what CBMs were deployed? What CBMs could have perhaps been deployed in a manner that might have led to more trust building, especially after something that was accidental based on the version that is being presented?

Haleema Saadia:

In that context, the first CBM that should have been implemented within, I would say, hours or perhaps minutes of India realizing that the missile has misfired was the hotline agreement, either between the foreign secretaries or the DGMOs hotline that exists. The DGMO hotline, although I did not discuss it in my policy memo, alludes to handling nuclear communications. Having said that, this was a missed opportunity. It was the best time for India and Pakistan to talk to each other and to build confidence. India could have built confidence in its own nuclear command and control as well. Its own forces in this context would know that a

misfire has happened, and we are informing the adversary of that in that instance.

It goes both ways as well. If that misfire had happened, and if Pakistan, as the DGISPR had narrated in a press conference, had tracked the missile throughout its course, the Pakistani DGMO could have called the Indian counterpart, or the Pakistani Foreign Secretary could have called the Indian counterpart. It did not have to be India making the first call, which, of course, was the best-case scenario. Even Pakistan could have done that.

Having said that, in response to the question that Bashir asked about cruise missile pre-notification. If that was in the NCBM framework, then it would have been perhaps easier for Pakistan and India to invoke a particular clause. For example, the Ballistic Missile Pre-Notification Agreement has a clause, which is Article 8, if I'm not wrong. This clause talks about both states talking to each other on issues concerning that framework or if there are any challenges or problems that arise. This was one of the issues that could have been dealt with under that framework if cruise missiles were part of that modification.

Lastly, there has been a breakdown in the communication channels and an impasse at the dialogue level in both states. That has made both states resistant to talking to each other on a bilateral level. That should not be happening between two nuclear-armed neighbors. They need communication channels, and they especially need a crisis communication network. I will stop at that.

Uzair Sattar:

That puts us right at time. I will conclude this event by, first and foremost, thanking the four of you for being such wonderful fellows. We enjoyed hosting you all last summer and working with you throughout. It was wonderful wrapping up the formal requirements of your fellowship, and we got to circle back and discuss what you had learned in the fellowship. I also want to thank the team at the South Asia Program. Running fellowships is an all-team effort, and I am grateful to be supported by wonderful colleagues in the program and our NRFs. Sharing a note of gratitude to all the folks that the four of you met last summer in DC who had input to give and propelled your research into new pastures.

Applications for the next year's fellowship will be live in the fall. Keep a lookout around September to October. We encourage emerging analysts in the region, India and Pakistan, to apply. I hope it is a fruitful application process, and we hope to continue this tradition. With that, I'm going to close the event with a word of thanks to the four of you and the audience for participating and asking good questions that we, unfortunately, did not have enough time to get to. Thank you for joining and have a great rest of your day and night wherever you are.