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Addressing Future Nuclear Crisis Scenarios in South Asia through a Responsibility-Based Approach

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Contents

List of Abbreviations

CBMs	Confidence-Building Measures
C4ISR	Communications, Computers, Intelligence, Surveillance, and Reconnaissance
CMC	Cuban Missile Crisis
DCSO	Deputy Chief of Staff for Operations
DGMO	Directorate-General of Military Operations
DIME	Diplomatic, Information/ Intelligence, Military, and Economic
EMP	Elector-Magnetic Pulse
IWT	Indus Waters Treaty
MAF	Ministry of Foreign Affairs
MIB	Ministry of Intelligence & Broadcasting
MOD	Ministry of Defence
NAA	Agreement Between India and Pakistan On The Prohibition of Attack Against Nuclear Installations and Facilities
NCA	Nuclear Command Authority
NC3	Nuclear Command, Control, and Communication
NCC	Nuclear Command Council
NCS1	Nuclear Crisis Simulation 1
NCS2	Nuclear Crisis Simulation 2
SASCS	South Asian Standing Communications Secretariat
SDS	Security Dilemma Sensibility
TNWs	Tactical Nuclear Weapons

Executive Summary

> This report is the product of two Track 2/1.5 dialogues, involving **two crisis simulations**, that were facilitated by BASIC with **Indian and Pakistani participants** in Bahrain in February 2026.

Complementing Mhairi McClafferty's companion study of the May 2025 India-Pakistan crisis, it uses simulations as a methodological vehicle to examine how escalation and de-escalation dynamics may unfold in future India–Pakistan nuclear crises.

The central argument of Part I of the report is that escalation in the India–Pakistan nuclear dyad should be analysed as an "*escalation cascade*" in which *deliberate* and *inadvertent* escalation pathways operate simultaneously and interactively, creating a spiral of escalation that is unintended by those making the decisions that drive it. Such escalation cascades are fueled by psychological and emotional dynamics. Participants operated under conditions of fear, uncertainty, and time pressure, but rather than this leading to an openness to alternative interpretations of adversary intentions, they operated with two cognitive biases: (i) peaceful/defensive self-images and (ii) a bad faith model of the adversary. As a result, actions intended as limited and defensive were consistently interpreted by their opponents as escalatory, also fuelled by communication dynamics that were not conducive to de-escalation. Two different conceptions of fear operated in the simulations and produced different escalatory/de-escalatory effects: fear of the adversary and fear of the crisis slipping out of control–what James Blight terms "fear of nuclear inadvertence."

The first dominated in Nuclear Crisis Simulation 1 (NCS1), but NCS2 gave rise to the second kind of fear. As NCS2 approached the nuclear threshold, this shift in the referent object of fear—from the adversary to the crisis itself—interrupted the escalation cascade, generating a limited recognition of shared vulnerability and contributed to a ceasefire in the final round.

The findings in this report based on the escalation cascades that developed in NCS1 and NCS2 highlight the challenge of how to prevent and stop escalation in a future India-Pakistan nuclear crisis, confirming the importance of placing de-escalation at the centre of theorising and policy. Part II of the report is aimed at achieving this and proposes six responsibility-based policy recommendations (see Box 1) aimed at preventing escalation from occurring in a crisis but also contributing to crisis prevention in the first place. A central theme underpinning these recommendations is the need to cultivate empathic understanding and address the cognitive and emotional dynamics that drive escalation cascades. Ultimately, the report highlights the urgent need for India and Pakistan to recognise both normatively and in policy-making that nuclear crises must be framed not as Thomas Schelling once put it, a "competition in risk-taking" but as an opportunity for "cooperative de-escalation". Without this, the danger is that future crises will escalate in ways that are difficult to control and reverse.

BOX 1:

Policy Recommendations

POLICY RECOMMENDATION 1

Promoting Empathically Grounded Communication

Promote crisis communication between India and Pakistan that is empathically motivated and grounded in Security Dilemma Sensibility (SDS). Communication should clearly explain the defensive rationale behind actions, acknowledge how these actions may be perceived by the other side, and seek clarification while offering reassurance. Such exchanges should also recognise the emotional drivers of escalation, including fear, pride, and anger, to avoid signals that unintentionally intensify tensions. To support this approach, Indian and Pakistani crisis managers should be trained to incorporate empathic communication practices before crises emerge, including the use of practical guidelines or checklists that encourage reflective, carefully sequenced messaging aimed at reducing misperceptions and opening pathways for de-escalation.

POLICY RECOMMENDATION 2

Improving and Creating Trusted Channels of Communication

Strengthen and diversify bilateral communication channels between India and Pakistan to improve crisis prevention, crisis management, and de-escalation. This includes establishing new high-level channels–such as leader-to-leader and National Security Advisor hotlines–and creating tri-services communication mechanisms covering land, air, and maritime domains. Existing mechanisms, including the Director-General of Military Operations (DGMO) hotline should be maintained and more regularly utilised, while channels such as the Foreign Secretary hotline should be fully established. Crucially, communication should be institutionalised during non-crisis periods to build trust, reduce misperceptions, and enable more effective crisis management.

POLICY RECOMMENDATION 3

Fostering Responsible Communication with the Public

To combat nationalist, militaristic, hawkish jingoism, India and Pakistan should promote responsible public communication through a number of mechanisms. This includes reinstating media guidelines such as the 1950 Joint Press Code, encouraging responsible reporting, avoiding sensationalism, and strengthening independent fact-checking to counter misinformation and deepfakes. Additionally, political leaders should avoid nationalistic rhetoric that escalates tensions, recognising that domestic messaging is often interpreted by the other side as evidence of hostile intent, thereby increasing risks of misperceptions and escalation.

POLICY RECOMMENDATION 4

Creating a Shared Narrative of Past Crises and Cooperative De-Escalation

Establish initiatives to develop a shared narrative of past India-Pakistan crises and reinforce confidence in cooperative de-escalation. Track 2 initiatives, crisis simulations, and oral history exchanges involving experts and retired officials should examine how crises unfolded, how signals were interpreted or misinterpreted, and what enabled restraint or resolution. These processes can help both sides better understand escalation dynamics and identify practical cooperative pathways for de-escalation. Divergent narratives are dangerous; building shared lessons about risks, thresholds, and restraint can reduce misperceptions and lower the likelihood of uncontrolled escalation in future crises.

POLICY RECOMMENDATION 5

Strengthening Track 2 Initiatives and Next Generation Involvement

Establish collaborative Track 2 dialogues and workshops also involving next generation and early career experts in India and Pakistan to focus on topics of shared interest–including the impact of emerging and disruptive technologies on nuclear risks, future nuclear crisis scenario exercises, and non-military security issues, such as climate change–to create opportunities to cultivate relationships and collectively think about joint pathways to strengthen crisis prevention, crisis management, and de-escalation in future India-Pakistan crisis scenarios.

POLICY RECOMMENDATION 6

Maintaining, Improving, and Creating Confidence Building Measures

Strengthen and update existing confidence-building measures (CBMs) between India and Pakistan such as the Agreement Between India and Pakistan on the Prohibition of Attack against Nuclear Installations and Facilities (Non-Attack Agreement (NAA)) to include new facilities and the Agreement on Pre-Notification of Flight Testing of Ballistic Missiles to incorporate the testing of hypersonic and cruise missiles as well as drone swarms. New CBMs and agreements should be created to prohibit cyberattacks on nuclear installations and NC3 systems, as well as to manage incidents at sea. Also, the Indus Waters Treaty (IWT) should be reinstated to reduce tensions and build trust in the India-Pakistan relationship following the May 2025 crisis.

PURPOSE

The purpose of this report is to **identify the how of escalation and de-escalation in future India-Pakistan nuclear crises** —what pathways of escalation are likely to be operative in future India-Pakistan nuclear crises, and how might these be prevented and/or interrupted to open space for de-escalation.

Introduction

The May 2025 crisis between India and Pakistan, their most destructive since the two sides developed nuclear weapons in 1998, highlighted once again the risks of nuclear escalation between the two adversaries.

The purpose of this report is to identify the *how* of escalation and de-escalation in future India-Pakistan nuclear crises–what pathways of escalation are likely to be operative in future India-Pakistan nuclear crises, and how might these be prevented and/or interrupted to open space for de-escalation. The latter critical issue has not received the attention it deserves when thinking about India-Pakistan nuclear crisis management, and this report, building on BASIC's previous work, seeks to rectify this.

This report is designed to be read alongside Mhairi McClafferty's companion study of the May 2025 crisis.[1] Based on semi-structured interviews with former Indian and Pakistani practitioners and nuclear policy experts, McClafferty's report provides a detailed account of how they perceived the escalation and de-escalation pathways that unfolded during the May 2025 crisis. McClafferty highlights the critical importance of interrogating the asymmetry in perceptions between India and Pakistan as to the origins, dynamics, and endings of the crisis.

Complementing and extending McClafferty's analysis, this report examines how these perceptual dynamics play out in a simulated crisis scenario. Drawing on two Track 2/1.5 simulations run by BASIC in Bahrain in February 2026 with Indian and Pakistani participants, it demonstrates how simulations enable observation of decision-making in a nuclear crisis characterised by fear, uncertainty, and the ever-present risk of nuclear escalation.

The report shows how (mis)perceptions, inaccurate interpretation of signals, and emotions all combine together to produce escalation in ways that are often unanticipated by the very decision-makers driving it. The report shows the value of simulations, especially when combined with interview-based research and historical analysis, in underlying drivers of escalation and opportunities for de-escalation that can be expected to be at work in future India-Pakistan nuclear crises.

Part I explains the mechanics of the simulations which were designed in conjunction with Dr. Andrew Reddie at the University of California, Berkeley who served as an expert consultant on the project. We decided to develop an abstracted scenario between two nuclear adversarial states–Yellow and Purple–each sharing, respectively, similar characteristics with India and Pakistan. Our purpose here was to encourage participants to focus on decision-making processes in a crisis rather than reproducing established national positions based on past crisis behaviour. We also made the conscious choice to begin the scenario with Yellow initiating a military attack against Purple for an alleged terrorist attack against one of Yellow's main cities. We recognise that this was a controversial design choice, and some participants challenged this starting point during the dialogues. However, given our focus on identifying the drivers of escalation and de-escalation in a nuclear crisis, it was necessary to design the scenario in this way.

A further key feature of the game design was controlling for the non-intervention of third parties, especially Blue (analogized to the United States). The rationale was to explore how Indian and Pakistani participants managed the dynamics of escalation in the absence of third-party involvement–testing the proposition that de-escalation in past India-Pakistan crises has depended critically on "out-sourcing escalation control"[2] to the United States as a crisis manager.

1 Mhairi McClafferty, *Unpacking the May 2025 India–Pakistan Crisis: Mutual Perceptions, Nuclear Escalation Risks, and De-escalation Pathways* (BASIC, 2026), https://basicint.org/unpacking-the-may-2025-india-pakistan-crisis/.

2 Rabia Akhtar, "Outsourcing Escalation Control", *South Asian Voices* (Stimson Center, September 2013), https:// southasianvoices.org/outsourcing-escalation-control/.

In both simulations, participants looked at key moments to outside parties–especially Blue and Red (analogous to China)–to intervene in ways that would be advantageous to their team, only to find themselves frustrated when this option was closed off by Control, or the "White Cell" (BASIC members), that adjudicated all moves.

The findings from both simulations highlight two distinct escalation pathways, reinforcing McClafferty's analysis of the May 2025 crisis, which identifies the same two dynamics of escalation: "deliberate" and "inadvertent".[3]

Expanding this conceptualisation, the central theoretical contribution of this report is the concept of an "escalation cascade." Existing theory tends to treat escalation pathways as analytically separate, but the concept of a *cascade* captures how deliberate and inadvertent pathways of escalation can operate together. We define an "escalation cascade" as follows: *the simultaneous interaction of different escalation pathways—deliberate, inadvertent, and potentially accidental*. While these pathways are analytically distinct, our argument emphasises their overlapping and mutually reinforcing dynamics in shaping escalation in nuclear crises. In both simulations, an escalation cascade arose through the interaction of deliberate decisions to escalate and an interactive dynamic in which actions that were believed by each side to be calibrated and proportionate responses were interpreted by the adversary as escalatory, giving rise to an escalation cascade across successive rounds. The academic and public policy importance of the "cascade" concept is that it highlights how de-escalation as a practice and set of associated policies has to address all the pathways of escalation at work in a nuclear crisis. Central to this is understanding how decision-makers psychologically experience a nuclear crisis under conditions of fear and uncertainty. Through simulations, researchers can observe participants cast in the role of nuclear crisis managers.

Nuclear crisis research has long recognised the potential destabilising impact of fear-induced stress on decision-making.[4] However, recent scholarship has highlighted the role of emotions more widely in how decision-makers respond to the condition of nuclear fear. Reid Pauly and Rose McDermott, for example, argue that it is "the emotions of…decision-makers on each side [that] influence chance and risk in brinkmanship".[5] Moreover, they claim that emotions such as fear, anger, and humiliation could lead to catastrophic deviations from rationality. They write, "It is indeed irrational to carry out a nuclear threat if massive nuclear retaliation is expected; but a human decision-maker acting on emotion or psychological bias might do so anyway".[6] As we discuss in Part I, the simulations highlight the importance of the emotions in driving escalation, but Nuclear Crisis Simulation 2 (NCS2) also suggests that the emotion of fear can contribute to a process of de-escalation.

This important finding supports James Blight's argument as to the productive role of fear in nuclear crises. Specifically, Blight argues, based on his recovery of the psychological dynamics of the Cuban Missile Crisis (CMC), that as fear reached its highest point in the crisis, decision-makers on both sides realised that events might be slipping out of control. Blight calls this moment "fear of nuclear inadvertence"[7] and argues that "Once they realized that the real adversary was the uncontrollable situation they had created, *they grappled* with the perverse situation and reversed its trajectory".[8]

The report presses into service these two very different conceptions of fear: fear of the adversary driving a zero-sum conception of a crisis as a "competition in risk-taking"[9] and fear of events slipping out of control–galvanizing what in an earlier report we called "cooperative de-escalation".[10]

3 These concepts are developed in Forrest E. Morgan, Karl P. Mueller, Evan S. Medeiros, Kevin L. Pollpeter, and Roger Cliff, *Dangerous Thresholds: Managing Escalation in the 21st Century* (RAND Corporation, 2008), https://www.rand.org/pubs/monographs/MG614.htm. In this report, deliberate escalation is defined as occurring when a state or actor intentionally takes actions that cross an escalatory threshold, accepting that doing so may intensify the conflict in order to gain strategic advantage. By contrast, inadvertent escalation occurs when actions unintentionally escalate a conflict by crossing thresholds that the adversary perceives as deliberately threatening or provocative, but which the escalatory actor did not expect to be interpreted in that way. These concepts are explored in greater detail in McClafferty, *Unpacking the May 2025 India-Pakistan Crisis*, pp.7-8.

4 A classic study is Ole R. Holsti, *Crisis, Escalation, War* (Montreal: McGill-Queen's University Press, 1972).

5 Reid B. Pauly and Rose McDermott, "The Psychology of Nuclear Brinkmanship", *International Security* 47(3) (2023), p.33, https://doi.org/10.1162/isec_a_00451. See also Robin Markwica, *Emotional Choices: How the Logic of Affect Shapes Coercive Diplomacy* (Oxford: Oxford University Press, 2018).

6 Pauly and McDermott, "The Psychology of Nuclear Brinkmanship", p.9.

7 James G. Blight, *The Shattered Crystal Ball: Fear and Learning in the Cuban Missile Crisis* (Rowman & Littlefield, 1992), p.71, p.163.

8 Blight, *The Shattered Crystal Ball*.

9 Thomas Schelling, *Arms and Influence* (New Haven: Yale University Press, 2008), p.91.

10 Eva-Nour Repussard, Nicholas J. Wheeler, and Chiara Cervasio (eds.), *Emerging and Disruptive Technologies in South Asia: Perceptions of Risks and Responsibilities in Crisis Management and Prevention* (BASIC, 2025), p.12. https://basicint.org/report-emerging-and-disruptive-technologies-in-south-asia-perceptions-of-risks-and-responsibilities-in-crisis-management-and-prevention/.

Nuclear Crisis Simulation 1 (NCS1) exhibited almost completely the first kind of fear–fear of the adversary's motives and intentions–whereas NCS2, particularly as the crisis approached the nuclear threshold, gave rise to a moment of "nuclear inadvertence" as participants expressed concern that continued escalation could lead to a catastrophic outcome.

However, the emergence of "nuclear inadvertence" and the possibly-fragile ceasefire it made possible in NCS2 also suggests that what matters for de-escalation is whether this fear is shared between two adversaries. Holmes and Wheeler argue that a key factor explaining how the CMC was de-escalated was the development of Security Dilemma Sensibility (SDS).[11] The latter is predicated on the idea that an adversary may be acting out of fear and insecurity and not predatory intent, and crucially, that decision-makers recognise how their own state's actions may have created those fears. Holmes and Wheeler argue that when adversaries respond to the emotional conditions of fear and vulnerability in a nuclear crisis by emphasising cooperative rather than competitive responses, the development of shared SDS and even trust becomes possible. Using the case of the CMC, Holmes and Wheeler argue that shared SDS developed out of a particular type of empathically motivated communicative dynamics between Kennedy and Khrushchev.[12]

As we discuss in Part I, in neither simulation did communicative dynamics of this kind emerge. Instead, what both simulations highlight is the barriers that obstruct the development of SDS in an escalating crisis. The report highlights two fundamental cognitive barriers to the development of SDS that previous BASIC reports have also drawn critical attention to: (i) peaceful/defensive self-images[13] and (ii) what Ole Holsti calls "an inherent 'bad faith model'" of the adversary.[14] The operation of these cognitive dynamics in the simulations dovetails with McClafferty's finding of the presence of these cognitive biases in India-Pakistan decision-making during the May 2025 crisis. The simulations extend this insight by showing through the lived experience of participants how these biased assessments of the adversary constrained the development of SDS even in the abstracted scenario.

A key design feature of NCS2 compared to NCS1 was aimed at assessing the impact of these cognitive and emotional biases during the simulation. While participants in NCS1 were assigned the role of a country closely analogous to their own (Pakistani participants played Purple and Indian participants played Yellow), participants in NCS2 were assigned the role of a country closely analogous to their adversary state (Pakistani participants played Yellow and Indian participants played Purple) to assess whether adopting the adversary's perspective would generate increased empathic understanding of the other. One of the most striking findings from the simulation was that, rather than fostering SDS, the practice of "altercasting" in this way reinforced adversarial images. The explanation appears to be that participants projected their own negative assumptions about the adversary onto the roles they inhabited when playing that state. This finding underscores the difficulty of generating SDS when participants hold deeply ingrained peaceful/defensive self-images alongside a bad faith model of the adversary's past, present, and predicted future behaviour. At the same time, we hope that the findings from this report–and the "altercasting" exercise in particular—can contribute to generating SDS by fostering a deeper awareness of how one's own biases and fears of the other can drive escalatory dynamics.

The report proceeds in two main parts:

- **Part I** analyses the dynamics of escalation and de-escalation in the simulations, examining the drivers of deliberate escalation, the mechanisms of inadvertent escalation, and the extent to which participants were able to identify and take off-ramps that could interrupt the "escalation cascade" they found themselves in.
- **Part II** builds on these findings and sets out, based on the reflections and deliberations of simulation participants, six policy recommendations rooted in responsible practices that can contribute to de-escalation, as well as managing and preventing escalation in future India–Pakistan nuclear crises.

11 Ken Booth and Nicholas J. Wheeler, *The Security Dilemma: Fear, Cooperation, and Trust in World Politics* (Basingstoke: Palgrave Macmillan, 2008), p.7. See also Nicholas J. Wheeler, *Trusting Enemies: Interpersonal Relationships in International Conflict* (Oxford: Oxford University Press, 2018) and Chiara Cervasio, "Reassurance through special envoys: The empathic de-escalation of security and status dilemma *dynamics in* China–India relations, 1986–2000" (Doctoral dissertation) (University of Birmingham, 2022).

12 Marcus Holmes and Nicholas J. Wheeler, "Leader Convergence: The Emotional Dynamics of Nuclear Crises," in *The Oxford Handbook of the International Relations of Emotions*, edited by Simon Koschut (Oxford: Oxford University Press, 2020), pp.95-111.

13 Booth and Wheeler, *The Security Dilemma*, pp.51-61; Nicholas J. Wheeler, *Trusting Enemies: Interpersonal Relationships in International Conflict* (Oxford: Oxford University Press, 2018), pp.91-3.

14 Ole R. Holsti, "Cognitive Dynamics and Images of the Enemy," in *Enemies in Politics*, edited by David J. Finlay, Ole R. Holsti, and Richard R. Fagen (Chicago: Rand McNally, 1967), p.26.

PART I

Dynamics of Escalation and De-Escalation in the Simulations

NCS1 and NCS2 revealed a complex pattern of escalation in which deliberate and inadvertent pathways operated simultaneously—what we termed in the Introduction an "escalation cascade".

In both simulations, escalation unfolded as an interactive process, driven by successive decisions taken by Yellow and Purple aimed at shaping the behaviour of the other side while attempting to manage the process of escalation. Participants in both simulations understood escalation in strategic terms, treating it as a deliberate and rational instrument of crisis management. In line with Snyder and Diesing's classic formulation, participants sought to "coerce prudently or accommodate cheaply, or some combination of both".[15] Yet the result of these decisions was an *interactive* escalation process that participants were surprised by and lacked control over. In both NCS1 and NCS2, participants believed they had offered credible off-ramps and that it was the adversary who had chosen to escalate.

These perceptions highlight the central role emotions played in shaping escalation pathways in the simulations. While participants justified their reasoning and actions in strategic terms (e.g., restoring deterrence, credibility, and escalation management), the observational data reveals how emotions such as anger, fear, humiliation, and frustration shaped how actors interpreted adversary behaviour and assessed the risks of showing restraint.

Crisis decision-making occurred in a rational environment, but what shaped notions of rationality was individual and group-level emotions. As one of our participants reflected after the simulation, "there is a relationship between satisfaction, restraint, resolve [and] reputation."[16] Yet, emotional dynamics operated in cross-cutting ways, and this was most evident in the way that different conceptions of fear operated to both enable and constrain escalation pathways in NCS1 and NCS2, helping to explain the variation in the de-escalatory outcomes in NCS1 and NCS2.

The type of fear most prevalent in NCS1 was fear of the adversary and it is this kind of fear that leads decision-makers to interpret a crisis in Schelling's terms as a "competition in risk taking".[17] It is a zero-sum encounter because each side imputes hostile intent to the other. Despite NCS1 exhibiting increasing levels of escalation, Yellow and Purple were not as close to the nuclear threshold as they were in NCS2, and there were no signs at the end that participants were close to agreeing a ceasefire.

Whilst this form of fear was strongly evident in NCS2, it is also the case that as the crisis deepened and it got closer to the nuclear threshold, a different kind of fear began to become more prominent. This is the fear that events might be slipping out of control—what Blight terms "fear of nuclear inadvertence"—which focused participants' attention on the need to find cooperative ways of de-escalating the crisis, resulting in Yellow and Purple agreeing a tentative ceasefire.

15 Glenn H. Snyder and Paul Diesing, *Conflict among Nations: Bargaining, Decision Making, and System Structure in International Crises* (Princeton, NJ: Princeton University Press, 1977), p. 207.

16 Participant in the second dialogue during the second day.

17 Thomas Schelling, *Arms and Influence* (New Haven: Yale University Press, 2008 (1966), p. 91.

What matters for de-escalation in a crisis is whether communication is **empathically grounded.**

As participants came to realise their shared vulnerability to nuclear destruction, they began to frame the crisis less in terms of fear of the adversary and more in terms of their shared responsibility to de-escalate the crisis.

This suggests that heightened awareness of shared vulnerability to nuclear dangers may have contributed to the eventual ceasefire in NCS2 as fear centred on the dangers of the crisis itself, rather than the danger posed by the adversary's intentions and capabilities.

A further notable difference between NCS1 and NCS2 was the role of communication. As explained in the section below on NCS1, communication was attempted in the simulation through the Deputy Chief of Staff for Operations (DCSO) channel.[18] However, this attempt failed to reassure. Moreover, this reassurance failure preceded a general breakdown in communication since when Yellow tried to reactivate the DCSO channel in the final rounds of the simulation, Purple refused to engage.

At the same time, Purple rejected an outreach from Blue (analogized to the United States and played by Control) at a key moment in the simulation that might have led to an off-ramp. By contrast, communication channels were used much more actively in NCS2. Participants answered calls on the DCSO hotline, engaged in diplomatic interactions, and attempted to convey intentions through these channels as well as military actions. Yet despite this higher level of communication, escalation dynamics were more intense than in NCS1. This is an important finding, and one the report returns to in Part II, because it highlights that communication is not a panacea. What matters for de-escalation in a crisis is whether communication is empathically grounded. In the absence of SDS, communication—as seen in NCS2—can have the reverse effect, fuelling escalation.

18 The DCSO hotline is modelled on the Director-General Military Operations (DGMO) hotline that was established between India and Pakistan after the 1971 War as part of the Simla Agreement. This hotline is currently the highest level of military contact between India and Pakistan and has been used in times of crisis to exchange information as well as more routinely.

1.1 The Mechanics of the Simulation and Key Variable Assumptions

Research Question and Key Variables

The central research question guiding the simulations was to identify the factors that shape decisions on escalation and de-escalation during a nuclear crisis between India-Pakistan. Each team had the freedom to signal to each other as per the DIME framework (Diplomatic, Information/ Intelligence, Military, and Economic), which is an established mechanism used in analytical wargaming and simulations representing the elements of national power.[19] Data was collected in a number of different forms. Observational data through BASIC staff embedded in Purple and Yellow as rapporteurs; post-simulation debriefs; and limited, informal follow-up conversations with a number of participants. As discussed in the Introduction, both simulations controlled for no significant intervention in the crisis by third parties, including but not limited to the United States (Blue) and China (Red), as we wanted to close down the possibility of Yellow and Purple outsourcing escalation control. We also opted not to model for the possibility of accidental escalation.[20] Every action taken by a team was adjudicated by Control for a likely outcome, but without resulting in accidents (e.g., a missile barrage may be partly intercepted, but will not accidentally strike a school). Although accidental escalation is an important pathway of escalation, for the purpose of answering the research question we had chosen to focus on deliberate actions only.

Mechanics

The setting of the simulations was abstracted for a fictional world consisting of states that were strongly analogised to the contemporary strategic relationship between India (Yellow) and Pakistan (Purple). Indian and Pakistan participants were divided into two teams, Yellow and Purple, based on their national groupings. Each team consisted of the following roles and responsibilities: an Executive; the Ministry of Defence (one Minister (MOD) and one Deputy Chief of Staff for Operations (DCSO)); the Ministry of Foreign Affairs (one Minister (MFA) and two Diplomats); and two ministers at the Ministry of Intelligence & Broadcasting (MIB). Both teams were given a map listing their key cities, military bases, and the location of their National Command Council (NCC, the equivalent of a National Command Authority). In NCS1, Indian and Pakistani participants were assigned to Yellow and Purple respectively while in NCS2 Indian participants were assigned to Purple and Pakistani participants to Yellow.

The simulation was played through a series of four consecutive rounds. In each round, Purple and Yellow could each take six actions in accordance with DIME. Control (BASIC team members) adjudicated all submitted actions during the break between rounds. Outcomes were delivered to teams at the start of the following round. So as to prevent any unnatural 'last turn' actions from knowing when the simulation was going to end, participants were not told that there would be no fifth round.

Communication channels were designed to reflect real-world dynamics. Participants assigned the role of DCSO were able to use a hotline to speak to their counterpart (phones were provided which they could use to make or answer a call). Participants in the MFA were able to speak to third party countries by requesting a meeting with Control. Communication was strictly limited to these two pathways.

19 Ministry of Defence, *Influence Wargaming Handbook*, (London: Ministry of Defence, 2023), https://assets.publishing.service.gov.uk/media/6494481b9e7a8b00139329d8/Influence_Wargaming_Handbook_web.pdf.

20 Morgan et al. define "accidental escalation" as occurring "when operators make mistakes, such as bombing the wrong targets or straying across geographical boundaries" (*Dangerous Thresholds*, p.xiv).

Round 1–4 in Figure 1 **illustrate participants' moves** in NCS1 and NCS2.

Nuclear Crisis Scenario

For both simulations, Rounds 0 and 0.5 were predetermined by BASIC, with participants playing from Round 1 onwards. Prior to the dialogues, participants were sent Round 0 (*27 August 2028*) as a backgrounder: a narrative description of a major explosion in Yellow's capital city, followed by two weeks of heightened domestic pressure, and increasing military readiness on both sides. Respective national intelligence briefs were provided as well: Purple's reported that no domestic group with state backing planned or executed the 27 August attack in Yellow; Yellow's intelligence reported that Purple may have been involved in sponsoring the attack but intelligence was uncertain.

On the day of the dialogue, participants were given Round 0.5 (*September 10 2028*), in which Yellow publicly confirmed it had launched a precision airstrike against a suspected terrorist training compound in Purple that it claimed was directly linked to the explosion in its capital city on 27 August. BASIC made the decision to confront Yellow participants with the *fait accompli* that they had initiated military action as we were looking at escalation dynamics. We used 'injects' throughout the first round of the simulation, to create an environment where escalatory dynamics could be expected, notably by creating public pressure on both sides.

FIGURE 1:

Participants' Moves in NCS1 and NCS2

Round 0

Nuclear Crisis Simulation 1

PURPLE'S KEY ACTIONS	YELLOW'S KEY ACTIONS
	■ A major explosion occurred in Yellow's densely populated commercial district, resulting in significant civilian casualties. No group claimed responsibility.
■ Purple issued a public denial and condemned the attack.	
■ Two weeks after the terrorist attack, forces on both sides remained at elevated readiness.	

Nuclear Crisis Simulation 2

PURPLE'S KEY ACTIONS	YELLOW'S KEY ACTIONS
	■ A major explosion occurred in Yellow's densely populated commercial district, resulting in significant civilian casualties. No group claimed responsibility.
■ Purple issued a public denial and condemned the attack.	
■ Two weeks after the terrorist attack, forces on both sides remained at elevated readiness.	

Round 0.5

Nuclear Crisis Simulation 1

PURPLE'S KEY ACTIONS	YELLOW'S KEY ACTIONS
	■ Yellow launches a precision airstrike against a suspected terrorist training compound that it claimed was directly linked to the initial attack in Yellow, and justified the strike as a "limited, defensive operation against Purple's state sponsored terrorist networks.
■ Purple claims that Yellow's strike was a direct assault on its sovereignty which had caused civilian casualties.	

Nuclear Crisis Simulation 2

PURPLE'S KEY ACTIONS	YELLOW'S KEY ACTIONS
	■ Yellow launches a precision airstrike against a suspected terrorist training compound that it claimed was directly linked to the initial attack in Yellow, and justified the strike as a "limited, defensive operation against Purple's state sponsored terrorist networks.
■ Purple claims that Yellow's strike was a direct assault on its sovereignty which had caused civilian casualties.	

Round 1

Nuclear Crisis Simulation 1

PURPLE'S KEY ACTIONS	YELLOW'S KEY ACTIONS
	■ Yellow calls Purple through the DCSO hotline, expressing that it did not mean to cause any harm to the State of Purple through the Round 0.5 strike.
■ Purple picks up Yellow's call through the DCSO hotline, saying "we'll restore our sovereignty come what may".	
■ Purple's MOD announces the mobilisation of additional troops along the disputed border with Yellow, describing the deployment as a defensive measure. ■ Purple's delegation takes its case to the United Nations, accusing Yellow of violating its sovereignty through what it described as a sustained campaign of unfounded allegations and provocative rhetoric. ■ Purple's MIB directly addresses Yellow's claims about militant safe havens within its territory, presenting a detailed rebuttal through official, diplomatic channels, and social media channels.	■ Yellow's Executive delivers a public statement, declaring a commitment to de-escalation along the border with Purple and emphasising the need for dialogue and restraint, but that further provocations would be met with a firm response. ■ The government calls for a transparent investigation into the explosion in the commercial district.

Nuclear Crisis Simulation 2

PURPLE'S KEY ACTIONS	YELLOW'S KEY ACTIONS
■ Purple calls Yellow on the DCSO hotline, informing Yellow that while they have struck a key military base, there is no interest in escalating further.	
	■ Yellow picks up Purple's call on the DCSO hotline.
■ Purple strikes a key military base with missiles and drones. ■ Purple's domestic media unifies behind the message that Yellow's actions were reckless "acts of aggression"; that it "violates the idea that Yellow is a responsible actor". Some media commentators in Purple state that Purple seeks restraint and cooperation; others strongly claim that Purple retains the right to self defence.	■ After the DCSO call, and responding to the strike on its military base, Yellow conducts further additional strikes against Purple's military installations. ■ Yellow forces used dual-capable missiles to target a key military air base, which hosts nuclear-capable aircrafts. Damage assessment remains unclear as to whether any nuclear assets were hit. Simultaneously, Yellow executes two drone strikes on a military base and on a logistics hub. ■ Yellow launches a wave of cyberattacks targeting Purple's military and civilian infrastructure. ■ Yellow's government launches a comprehensive media campaign to legitimise further escalation against Purple, and frames Yellow's actions as a necessary and just response to Purple's unprovoked attacks.

Round 2

Nuclear Crisis Simulation 1

PURPLE'S KEY ACTIONS	YELLOW'S KEY ACTIONS
■ Purple launches a series of precision strikes against military targets at Yellow's army bases and military infrastructure including command centres and logistics hubs. ■ Purple launches a wave of cyber and electronic attacks on Yellow's command, intelligence, surveillance, networks, information, and broadcasting infrastructure. ■ Purple's government declares a nationwide mobilisation.	■ Yellow's Executive convenes an emergency all-party meeting in the capital to address the nation's security and strategic response. ■ Yellow's MFA holds a press briefing to reiterate that Yellow does not intend to escalate the conflict, but that if Purple escalates any further, Yellow would not be held responsible for the consequences that follow.

Nuclear Crisis Simulation 2

PURPLE'S KEY ACTIONS	YELLOW'S KEY ACTIONS
■ Purple calls Yellow through the DCSO hotline. Purple conveys that Yellow's Round 1 strikes forced Purple to take reciprocal kinetic actions, but that it is now time for a ceasefire and a joint investigation into the initial terror attack.	
	■ Yellow picks up Purple's call on the DCSO hotline.
■ Purple conducts coordinated precision strikes on multiple Yellow military installations, including an airbase which hosts both conventional and nuclear assets. ■ Purple's Executive publicly issues an executive order to convene the NCC, and the forward deployment of tactical nuclear weapons. ■ Purple launches a cyberattack targeting Yellow's national power grid. ■ Purple leaks to the international media that there are ongoing conversations with Yellow regarding Purple's proposal of a joint terrorism investigation.	■ Responding to the precision strikes, Yellow conducts coordinated attacks on five military facilities across Purple, including a military centre just outside Purple's capital. ■ Yellow launches cyberattacks on Purple's air force and army assets, as well as the national electricity grid. ■ Yellow's missile defenses are placed on high alert and cyber defences reinforced. Yellow mobilises additional naval assets, and positioned warships to project power along Purple's coastline. Yellow significantly ramps up surveillance of Purple's naval movements. ■ Yellow issues coordinated messages that Yellow is responding because Purple has escalated the situation.

Round 3

Nuclear Crisis Simulation 1

PURPLE'S KEY ACTIONS	YELLOW'S KEY ACTIONS
■ Purple launches a campaign to debunk Yellow's claim that 80% of Purple's initial strikes were intercepted. ■ Purple also reiterates through public pressers that it is willing to de-escalate if Yellow refrains from further retaliation. ■ Purple's government launches a coordinated social media campaign to rally domestic support and reinforce national unity amid the escalating crisis.	■ Yellow conducts precision strikes on a military base, targeting command and control facilities, ammunition depots, and logistics hubs. ■ Yellow strategically redeploys its carrier strike group toward a key Purple port. ■ Yellow launches cyberattacks against Purple, disrupting key systems, including power grids, transportation networks, and military communication hubs.

Nuclear Crisis Simulation 2

PURPLE'S KEY ACTIONS	YELLOW'S KEY ACTIONS
	■ Yellow calls Purple through the DCSO hotline. Yellow accepts the offer of a joint investigation. The possibility of a ceasefire is first discussed. Yellow reminds Purple of its red lines and the threat of massive retaliation–and so this is the time to take the off-ramp.
■ Purple picks up Yellow's call through the DCSO hotline, suggesting that after the strikes in Round 2, "Both sides should announce a ceasefire simultaneously [in Round 4]". Purple also announces that strategic assets have been moved and reminded Yellow of Purple's red lines; that "we will not hesitate to do what's required".	
■ Purple strikes Yellow's refineries with missiles. ■ Purple launches a non-nuclear EMP strike at a major Yellow city. ■ Purple leaks disinformation to BBC and Reuters that Red's ballistic missile capable nuclear submarines have been sighted in a Purple port, with Purple and Red crews reportedly undertaking joint training. ■ Purple leaks to CNN that "a senior source in the Purple government states that Yellow has accepted Purple's request for a joint investigation. In turn, Purple is willing to accept Yellow's proposal for a ceasefire."	■ Yellow targets three major oil refineries in Purple with drone strikes. ■ Yellow responds to Purple's deployment of TNWs by mobilising ground forces in 'war formation' with forces pulled up close to the international border ■ Yellow launches cyber and electronic attacks against Purple's critical infrastructure. ■ Yellow initiates a spate of car bombs and targeted killings across cities in Purple. ■ Yellow's Executive calls a meeting of all political parties in the capital ■ Yellow initiates nuclear civil defense exercises. ■ Yellow also briefs senior representatives from Red, Orange, Blue, and Green on Purple's mobilization of tactical nuclear weapons.

Round 4

Nuclear Crisis Simulation 1

PURPLE'S KEY ACTIONS	YELLOW'S KEY ACTIONS
	■ Yellow calls Purple on the DCSO hotline, but the call goes unanswered.
■ Purple leaves Yellow's call on the DCSO hotline unanswered.	
■ Purple launches strikes against Yellow's C4ISR across different domains (land, sea, air, space, cyber) and across all vectors (lateral, vertical, horizontal). ■ Purple releases a public statement that they are planning on convening a meeting of the NCC. ■ Purple states that it remains open to de-escalation.	■ Yellow partially mobilises its military after its DCSO call to Purple went unanswered. ■ Yellow launches disinformation campaigns to weaken purple's legitimacy. ■ Yellow conveys through backchannels its intent to de-escalate and openness to negotiations.

Nuclear Crisis Simulation 2

PURPLE'S KEY ACTIONS	YELLOW'S KEY ACTIONS
■ Purple calls Yellow through the DCSO hotline offering a ceasefire.	
	■ Yellow receives a call from Purple through the DCSO hotline and answers.
■ Both sides agree to a formal ceasefire. Ceasefire is announced at 1pm, coming into effect at 5pm.	■ Both sides agree to a formal ceasefire. Ceasefire is announced at 1pm, coming into effect at 5pm. ■ Yellow makes it public that the ceasefire was conditional on no violations by Purple and announces that suitable military preparations had been made in the event of violations. These included the possible use of drones and keeping existing mobilised ground forces on high alert.

1.2 Nuclear Crisis Simulation 1

a. Deliberate Escalation

The observational data from NCS1 leads to the identification of four key drivers of deliberate escalation:

- restoring deterrence and demonstrating resolve;
- escalation dominance;
- reputational pressures and domestic politics; and
- the emotional factor in decisions to escalate.

Although these drivers overlapped in practice, separating them analytically helps illuminate why participants repeatedly chose further escalation even when they recognised the risks of doing so.

Restoring Deterrence and Demonstrating Resolve

The most immediate driver of deliberate escalation in NCS1 was the perceived need to restore deterrence credibility in response to an adversary attack. From the outset of the simulation, Purple framed Yellow's strike in Round 0.5 not simply as a limited use of force, but as a direct challenge to Purple's sovereignty and deterrence posture. This created strong pressure within Purple to signal resolve through a retaliatory strike. As Purple's DCSO put it, "we cannot let any actor walk away with the impression that Purple is weak".[21] Purple's Executive agreed that "we need to restore deterrence".[22] Interestingly, Purple did not see its initial retaliatory strike as incompatible with de-escalating the crisis. The debate within Purple was not over whether to respond, but over how to do so in a way that would restore deterrence without triggering unmanaged escalation.

This logic was visible in the discussion over target selection in Round 2. Purple's choice to strike Yellow's army base was justified not as an open-ended escalation, but as Purple's MIB expressed it, a "measured, calibrated response"[23] to Yellow's earlier action. Purple's Executive and MFA stressed that the objective was to demonstrate resolve while avoiding striking targets that crossed adversary thresholds, crucially targets where conventional and nuclear forces were co-located–the challenge of "conventional-nuclear entanglement".[24]

Yet this effort to signal resolve and not cross an adversary threshold failed because Yellow interpreted Purple's military attack against its army base as an escalatory move. Yellow's Executive said in a somewhat frustrated way, "we want to de-escalate, but they want to escalate",[25] showing that Purple's signal of not wanting to escalate the crisis had not been interpreted this way by Yellow. This belief on the part of Yellow was mirrored in Purple: each side treated its own escalation as proportionate and necessary, while viewing the adversary's moves as evidence of their desire to dominate the escalation process. Yellow's Executive gave voice to this perception when they remarked, "we have been forced to escalate".[26] Each side denied their own agency in the escalation, blaming the adversary for creating a situation where they had to respond militarily, or be seen as weak, which would invite further adversary attacks and be politically costly at home.

21 Purple's DCSO in NCS1.
22 Purple's Executive in NCS1

23 Purple's minister from the MIB in NCS1.
24 James M. Acton, "Escalation through Entanglement: How the Vulnerability of Command-and-Control Systems Raises the Risks of an Inadvertent Nuclear War", *International Security* 43(1) (2018): 56–99, https://doi.org/10.1162/isec_a_00320. See also Barry R. Posen, *Inadvertent Escalation: Conventional War and Nuclear Risks* (Ithaca, NY: Cornell University Press, 1991).
25 Yellow's Executive in NCS1.
26 Yellow's Executive in NCS1.

Escalation Dominance

A second driver of deliberate escalation was the belief that establishing a position of "escalation dominance"[27] would compel the adversary to back down. It is important to distinguish here between de-escalation that is imposed on an adversary through coercive escalatory actions and de-escalation that is achieved through cooperation between two or more adversaries–the idea of "cooperative de-escalation". Purple's Executive gave voice to a strategy of dominating the escalation ladder when they said in Round 2 that Purple was "escalating to get Yellow to back down".[28] Purple's search for "escalation dominance" was even more evident in Round 4 when Purple debated whether its conventional strikes on Yellow's C4ISR combined with nuclear signalling through the NCC would compel Yellow to cease its military operations.[29] However, each side's perception that the adversary was seeking to dominate the escalation ladder reinforced their belief that further escalation was necessary. For example, at the start of Round 3, after Purple's retaliatory response, Yellow's MOD said, "we wanted to de-escalate but they have escalated… and there were casualties".[30] This reasoning justified a further strike by Yellow in Round 3 against a military base in Purple.

NCS1 shows how each side believed that deliberate escalatory moves could produce de-escalation, but since this logic operated on both sides, the result was increasing escalation.

Reputational Pressures and Domestic Politics

Deliberate escalation in NCS1 was also driven by reputational concerns and domestic political pressures. Purple's deliberations show that decisions about retaliation were shaped by a concern to maintain credibility, reassure domestic publics that decisive action was being taken, and prevent Yellow from controlling the public narrative of the crisis. Purple, for example, paid considerable attention to the informational dimension of the crisis: how Purple's response would be perceived at home, how international audiences would interpret the unfolding crisis, and how public opinion in Yellow might be influenced by Purple's actions. Participants sought to construct a narrative that closed down any space for Yellow to present Purple as lacking in resolve.

This desire not to be seen as weak conditioned Purple's approach to third parties, especially Blue. This seems to explain Purple's reluctance to engage Blue at key moments, and its refusal to answer Yellow's outreach after subsequent rounds of military action (discussed further in the section below on inadvertent escalation). Even where some participants recognised possible off-ramps, pursuing these was always dependent on not being seen as weak in the eyes of both domestic and international audiences.

Yellow was also worried about reputational concerns and not showing any weakness to its domestic public. The terrorist attack in a major city in Yellow had led to civilian casualties, fuelling domestic and media pressures for Yellow to retaliate. Escalation decisions were justified, then, not only as strategically required but also as necessary to manage domestic publics that expected a decisive response.

27 The US Cold War strategist Herman Khan developed the concept of "escalation dominance" in his 1965 book *On Escalation*. He defined it as a capacity, other things being equal, to enable the side possessing it to enjoy marked advantages in a given region of the escalation ladder… It depends on the net effect of the *competing capabilities* on the rung being occupied, the estimate by each side of what would happen if the confrontation moved to other rungs, and the means each side has to shift the confrontation to these other rungs. One variable affecting escalation dominance is each side's relative fear of eruption. That side, which has least to lose by eruption, or fears eruption the least, will automatically have an element of escalation dominance (Herman Kahn, *On Escalation: Metaphors and Scenarios* (London: Pall Mall Press, 1965), p. 290). Khan is also famous for introducing the metaphor of escalation as a "ladder" where actors rationally choose to go up or down rungs (see Kahn, *On Escalation*, pp.37-49). One of the striking features of the observational data was how much participants in both Yellow and Purple made reference to this metaphor when justifying their positions.

28 Purple's Executive in NCS1.

29 Rapporteur's observer notes from NCS1.

30 Yellow's MOD in NCS1.

The Emotional Factor in Deliberate Escalation

A fourth driver of deliberate escalation in NCS1 was the emotional dynamics of crisis decision-making. Participants frequently framed their choices in strategic language, but the observational data suggests that emotions (e.g., anger, frustration, humiliation, and especially fear) shaped how they interpreted the adversary's actions and assessed the costs of restraint. Emotional pressures were especially evident as the crisis deepened and each side inflicted progressively greater damage on the other.

From the first round, the observer's notes from NCS1 highlight the stress on both sides' leadership. Purple's Executive is described as "very stressed"[31] and at one point as tensions rose, the Executive was struggling to maintain control of those in their team who wanted to ascend higher rungs of the escalation ladder. As the crisis deepened, Purple increasingly applied a bad faith model to Yellow's action, insisting that Purple had given Yellow "every chance"[32] to pursue an off-ramp. This emotional response was mirrored in Yellow's deliberations. The DCSO, in particular, was disappointed and frustrated that Purple had used the DCSO channel to convey they would strike. They grimly reflected, "if you talk, then you strike, [it] feels like a betrayal".[33] Fear and anxiety led both sides to adopt worst-case assessments of the adversary's intentions, driving decisions to escalate within the simulation. Participants expressed anger as the tempo of strikes increased and feelings that they were being forced to escalate because of the other side's aggressive behaviour. This was particularly evident in Round 4 where Yellow's latest military moves were interpreted as posing an existential threat to Purple, leading the team to debate how far this necessitated increased nuclear signalling through the mobilisation of nuclear forces.

Fear of the adversary–and not Blight's "fear of nuclear inadvertence"–predominated in the psychological states of the participants who framed the crisis as a "competition in risk-taking".[34] Emotions were not separate from deliberate escalation; they helped constitute a decision-making environment in which deliberate escalation became possible and compelling.

b. Inadvertent Escalation

While deliberate escalation played a central role in shaping the crisis dynamics of NCS1, the interaction also exhibited clear patterns of inadvertent escalation.

Two mechanisms can be identified as driving this pathway of escalation:

- inaccurate signal interpretation and
- the operation of cognitive dynamics.

Each of these mechanisms operated together, but for analytical purposes the report distinguishes them.

Inaccurate Signal Interpretation

A key driver of inadvertent escalation was the inaccurate interpretation of signals which led to a spiral of escalatory behaviours. For example, Purple framed its strikes in Round 2 as a proportionate response intended to signal resolve without expanding the conflict. However, Yellow interpreted these actions as evidence that Purple was escalating the crisis, especially with the escalation to other domains using cyber-attacks. Yellow's Executive opined after Purple's attack in Round 2 that "if your critical infrastructure is attacked, you cannot not retaliate".[35] Yellow decided to respond with kinetic and non-kinetic actions leading Purple, in turn, to interpret these actions as part of a deliberate attempt to escalate the crisis and undermine Purple's deterrence posture. This explains why Purple refused Yellow's offer of talks through both the MFA and DCSO channels in Round 3 (see below). The mismatch in signal interpretations and consequent inadvertent escalation could not be starker. This was encapsulated by Yellow's MOD who said, "we didn't escalate and then they did. They offered talks through red and we declined. Then we attacked. Are they now willing to talk directly? If not, less scope for de-escalation".[36] However, Purple was not prepared to enter into a dialogue after they had just been attacked, and this set the stage for Purple's dramatic escalation in Round 4–including the first clear evidence of nuclear signalling in the crisis.

31 Rapporteur's observer notes from NCS1.
32 A Purple participant in NCS1.
33 Purple's DCSO in NCS1.
34 Schelling, *Arms and Influence*, p.91.
35 Yellow's Executive in NCS1.
36 Yellow's MOD in NCS1.

The Operation of Cognitive Dynamics

A second mechanism of inadvertent escalation in NCS1 was the operation of cognitive dynamics. Decision-makers systematically interpreted signals through deeply ingrained adversarial images. Participants frequently applied a bad faith model, assuming that the adversary was deliberately exploiting the crisis to advance coercive objectives, while simultaneously maintaining a peaceful/defensive self-image in relation to their own actions. This asymmetry of perceptions ensured that measures believed by one side to be limited and proportionate responses were consistently interpreted by the others as signals of deliberate escalation.

It was these cognitive biases that produced the form of fear–fear of the adversary–which was dominant in NCS1. This mechanism was operative across successive rounds of the simulation. Purple's strikes in Round 2 were interpreted by Yellow as escalation, prompting further military and cyber responses. These actions, in turn, reinforced Purple's perception that Yellow was escalating the crisis. This mechanism of inadvertent escalation intensified as bad faith thinking co-joined with fears of strategic vulnerability–including the spectre of nuclear escalation. These uncertainties and anxieties drove worst-case scenario thinking. As one participant in Purple noted during Round 4 deliberations, decision-makers needed to hedge against the possibility that Yellow might be preparing a decapitation strike against Purple's nuclear forces. Such fears intensified pressure to mobilise and prepare for further escalation. These biased images of the adversary reinforced the action–reaction escalatory dynamics observed across successive rounds, shrinking the normative space for de-escalation.

The observational data and resulting outcomes in NCS1 show both deliberate and inadvertent escalation pathways at work—the "escalation cascade" concept we introduced earlier. An escalation cascade poses a particularly challenging problem for de-escalating a crisis because an off-ramp has to address multiple pathways of escalation at work at the same time. The next section examines why attempts to create off-ramps for de-escalation failed to gain traction within this environment.

c. Off-ramps and the Challenge of De-Escalation

Although several potential off-ramps emerged over the course of NCS1, these failed to gain traction.

The report identifies three key blocking mechanisms:

- the sequencing problem of communicating a credible commitment to de-escalation whilst escalating;
- cross-domain escalation and nuclear signalling narrowing the space for de-escalation; and
- communicative dynamics that fail to reassure.

The Sequencing Problem of Communicating a Credible Commitment to De-Escalation Whilst Escalating

A first obstacle to achieving de-escalation in NCS1 was the belief that it was possible to signal a credible commitment to de-escalation immediately after showing resolve through an escalatory move, when in practice the initial escalation undermines the credibility–or even just the possibility–of any subsequent communication. This sequencing problem meant that, for example, when Yellow attempted to reach out to Purple through the DCSO hotline in Round 4 to communicate de-escalatory intent, Purple refused to engage upon thinking that Yellow's military actions in Round 3 signalled the converse. In Round 2, after rejecting Blue's call, Purple's Executive remarked, "When strikes have to happen, phone calls are dead… We are not listening to everyone. Yellow will see this as Purple weakness. They should have talked to us earlier".[37] On the other hand, Purple was open to de-escalation in Round 3–after it had struck in Round 2–issuing a public statement that it is now open to de-escalation as long as Yellow refrains from further escalation. Although Purple picked up Yellow's DCSO call in Round 1, it was just to issue a threat that Purple will "restore our sovereignty come what may".[38]

37 Purple's Executive in Round 2 of NCS1.
38 Purple's DCSO in NCS1.

From Yellow's perspective, after Purple had attacked in Round 2, and Yellow was preparing a cyber response, kinetic strikes, and increased naval mobilisation, Yellow's DCSO said, "we would still prefer de-escalation"[39] but the observational data shows that Yellow felt affronted because it was threatened by Purple in Round 1 and its overture through Blue in Round 2 was rejected. Yellow's MOD reflected grimly in Round 4 on the interactive dynamic of escalation, criticizing Purple for failing to recognize that one should not try "diplomatic and military action at the same time",[40] —overlooking that Yellow itself was doing exactly that and sending the same confused signals.

What is evident is that participants on both sides expressed concern that engaging in dialogue—particularly following the use of force by the adversary—would signal weakness and undermine deterrence credibility. The result was that when one side was ready to make an offer of de-escalation because it perceived itself to be in a strategically advantageous position, it landed with the adversary at a point where they felt compelled to restore deterrence and signal resolve by responding militarily. This sequencing problem made it very difficult to find an offramp that would reverse the escalation cascade underway.

Cross-Domain Escalation and Nuclear Signalling Narrow the Space for De-Escalation

As the crisis escalated, the expansion of military operations into the cyber realm and nuclear signalling further narrowed the space for de-escalation. As the stakes increased, there was little or no sign of "fear of nuclear inadvertence" shaping the perceptions and actions of participants. Instead, leaders doubled down and became more reluctant to pursue conciliatory gestures, fearing that to do so would be interpreted as weakness. With fear of the adversary dominating over fear of events slipping out of control, both sides were determined not to come off the escalation ladder until they were in a highly advantageous position.

Communicative Dynamics That Fail to Reassure

A third factor contributing to the failure of off-ramps in NCS1 was communicative dynamics that failed to reassure and generate shared SDS, leading to a refusal on the part of one side to communicate at all. In NCS1, the very first DCSO call from Yellow to Purple in Round 1 escalated tensions as Purple curtly said "We'll restore our sovereignty come what may".[41] Nevertheless, because Purple did not strike in Round 1, Yellow remained open to the possibility of finding an off-ramp acceptable to both sides. Yellow met with Blue (through Control) and asked Blue to convey to Purple that Yellow was seeking to de-escalate the crisis. However, Purple rejected Blue's call and attacked Yellow in Round 2. There was some disagreement in Purple about whether to talk to Blue, but Purple's Executive explained to their ministers, "When strikes have to happen, phone calls are dead. We are not listening to everyone. Yellow will see this as Purple weakness". Blue told Yellow that Purple did not take the call, creating confusion in Yellow as to why the call was rejected. Yellow then took Purple's military attack in Round 2 as a rejection of what was a sincere overture.

After Purple had attacked Yellow's army base in Round 2, and there was some discussion in Yellow about continuing to explore a backchannel, Yellow's Executive rejected such an outreach saying that "given the lack of trust between the two countries, it is very unlikely that a backchannel will work".[42] As the crisis escalated and adversarial images became more deeply entrenched, communication channels not only failed to reassure, they were deliberately refused. This was most evident in the final stages of the simulation when Purple refused to take Yellow's calls on two occasions. This removed a key mechanism through which an off-ramp might have been found, leading both sides to rely increasingly on worst-case assessments of the other.

39 Yellow's DCSO in NCS1.
40 Yellow's MOD in Round 4.
41 Purple's DCSO in NCS1.
42 Yellow's Executive in Round 2 of NCS1.

1.3 Nuclear Crisis Simulation 2

The following sections examine the dynamics of deliberate escalation, the interactional mechanisms through which inadvertent escalation emerged, before turning to whether there were any possibilities for de-escalating the crisis that were missed or rejected before the ceasefire agreement in the very last round.

a. Deliberate Escalation

This section shows how the same four drivers of escalation that were operative in NCS1 were also at work in NCS2:

- restoring deterrence and demonstrating resolve;
- escalation dominance;
- reputational pressures and domestic politics; and
- the emotional factor in decisions to escalate.

Restoring Deterrence and Demonstrating Resolve

Yellow and Purple from the outset of NCS2 framed their military responses as proportionate acts designed to demonstrate resolve rather than escalate the conflict. As we discuss in the off-ramps section of NCS2, each side did not believe their decisions to use progressively higher levels of force were incompatible with finding an off-ramp. As with NCS1, the scenario begins with Yellow attacking an alleged terrorist compound inside Purple, but from that moment on, decisions to escalate or de-escalate are in the hands of the crisis managers themselves. Purple's decision to retaliate against Yellow's attack by striking against Yellow's military base illustrates the logic of restoring deterrence clearly. As Purple's Executive put it, the aim was "to restore deterrence by doing a proportionate kinetic response".[43] At the same time, Purple emphasised that escalation should remain controlled, with the Executive explicitly stating that "we will not hit any nuclear sites/facilities".[44] This emphasis on proportionate retaliation reflected a shared belief among both Yellow and Purple that visible demonstrations of resolve were necessary to prevent further adversary pressure. However, because each side applied this logic, the result was an ever-escalating process of deliberate escalation.

Escalation Dominance

As noted earlier, participants in NCS1 often invoked Khan's metaphor of the "escalation ladder" to justify and frame choices. This was even more pronounced in NCS2 and there is strong evidence from the observational data that both sides sought to achieve "escalation dominance" in the crisis or at least prevent the adversary from doing so. As Purple's DCSO put it, "This is the beginning of the *escalation ladder.* So we need to set the stage for more action to come" (emphasis added).[45]

Deliberations within Yellow were even more explicit as to the importance of dominating the ladder of escalation. One of the ministers from the MIB (a Pakistani participant playing Yellow) argued that Yellow should signal its willingness to escalate further, describing the situation as an opportunity "once and for all to establish dominance over Purple".[46] This logic informed Yellow's decision to escalate further following Purple's strike on Yellow's Army Base in Round 1. In Round 2, Yellow launched dual-capable missiles against three targets in Purple, including against Purple's Air Base that hosts nuclear-capable aircraft. The justification given by Yellow's MFA to Blue for these decisions, taken under great time pressure at the end of Round 1, was that we are "escalating to de-escalate", reflecting the belief that demonstrating a willingness to climb higher rungs of the escalation ladder would compel adversary restraint.

43 Purple's Executive in NCS1.
44 Purple's Executive in NCS1.
45 Purple's DCSO in NCS2.
46 Yellow's minister from the MIB in NCS2.

However, there were deliberations inside Yellow about whether its strike on Purple's Air Base would lead to de-escalation by forcing Purple to scramble for an off-ramp. Yellow's Executive said, "how do we end the conflict on favorable terms by giving the message that we are willing to go the distance and climb additional rungs on the escalation ladder".[47] The importance of only making an offer to de-escalate after dominating the "escalation ladder" was underlined by a diplomat from the MFA. They said, it was important "to give them off-ramps given they are a nuclear state. But we must not show weakness and we would ask them to think twice because we are ready to go again and not back out".[48] Purple exhibited a similar logic later in the crisis. When considering how to respond to Yellow's escalating strikes, participants searched for what one participant (an Indian participant playing Purple) described as a "non-escalatory attack". Yet even this concept involved conducting further military strikes that would allow Purple to save face while signalling that it remained capable of additional escalation. As this logic operated on both sides, escalation was driven upwards.

Reputational Pressures and Domestic Politics

Throughout the simulation, participants repeatedly expressed concern that restraint could be interpreted as weakness by both domestic audiences and the adversary. These pressures created strong incentives for leaders to demonstrate resolve even when they recognised the risks of further escalation. Within both teams, participants emphasised that failure to respond decisively could undermine deterrence credibility and show weakness at home. As we discuss below, even when participants discussed potential off-ramps, these were conditioned on first establishing a position of strength through using force.

These reputational concerns were particularly visible following Purple's strike on Yellow's army base in Round 1 and directly informed Yellow's decision to strike back in the same round. Within Yellow's deliberations, influential voices argued that failing to respond forcefully would allow Purple to dictate the pace of the crisis and undermine Yellow's credibility in the eyes of both domestic and international audiences.

The decision at the very end of Round 1 to strike multiple targets in Purple, including the Cerdu air base hosting nuclear-capable aircraft, reflected this logic. Similar dynamics were evident within Purple's leadership discussions. Even when some participants expressed an interest in exploring de-escalatory possibilities, others warned that restraint could damage Purple's political standing and credibility, especially given the growing domestic pressures for Purple to retaliate and signal increased resolve. Reputational and domestic political considerations in Yellow and Purple narrowed the space for de-escalation on anything other than their terms.

The Emotional Factor in Nuclear Crisis Decision-Making

Emotions also played a central role in shaping escalation dynamics in NCS2. Participants consistently framed their decisions in strategic terms—restoring deterrence, demonstrating resolve, and maintaining escalation dominance. Yet the discussions reveal that what Markwica terms the "logic of affect"[49] structured how decision-makers interpreted adversary behaviour and evaluated the risks of restraint. The predominant emotion in the simulation was fear and anxiety directed at the adversary's intentions. At the same time, each side blamed the other for the crisis not de-escalating. This frustration is evident in Purple Executive's comment during Round 2: "we are looking for deescalation, but the other side wants a ceasefire on its own terms only AFTER it has hit you".[50] As the crisis escalated in Round 2, Yellow's Executive drew on a classic trope from the Cuban Missile Crisis (CMC) to emphasize that the two sides were moving towards the brink: recalling US Secretary of State Dean Rusk's famous line from the crisis at the point where a shooting war could have begun, Yellow's Executive (played by a Pakistani participant) remarked, "we are eyeball to eyeball".[51]

Yellow's deliberations in Round 4 capture the growing sense that events were slipping out of control. Purple's decision in Round 3 to convene its NCC, forward deploy tactical nuclear weapons, and detonate a conventional device exo-atmospherically to generate a Electro-Magnetic Pulse (EMP) clearly concentrated minds here.

47 Yellow's Executive in NCS2.
48 Yellow's Diplomat in NCS2.
49 Markwica, *Emotional Choices*.
50 Purple's Executive in Round 2 of NCS2.
51 Yellow's Executive in Round 2 of NCS2..

However, what most concerned Yellow was the report publicised by control–but based crucially on disinformation from Purple–that "Red's ballistic missile capable nuclear submarines had been sighted at Purple's naval base, with Purple and Red crews reportedly undertaking joint training".[52] Yellow's DCSO was particularly exercised by this report, saying this created a situation of "urgency", there was an "imminent risk of [a] Purple nuclear attack", and was especially "alarming is collaboration with Red".[53]

As the crisis intensified and nuclear risks became increasingly salient, there are indications that participants began to frame their fears in a way that moved closer to Blight's "nuclear inadvertence". Some participants expressed concern that events were moving beyond the control of either side, reflecting an emerging awareness of shared vulnerability and the need for what we call "co-operative de-escalation". As discussed in the off-ramps section, this fear of the crisis slipping beyond their led participants to negotiate and agree a ceasefire in Round 4.

a. Inadvertent Escalation

As with NCS1, deliberate escalation was not the only type of escalation at work in the simulation. While deliberate escalation played a central role in shaping the crisis dynamics of NCS2, the interaction also exhibited clear patterns of inadvertent escalation. It will be recalled that inadvertent escalation occurs when actions taken by one side that are not believed to cross an escalation threshold are interpreted differently by the adversary, triggering a process of escalation that was unintended by the side that took the initial action.[54] As with NCS1, the simulation provides strong evidence of this escalation pathway.

The same two mechanisms of inadvertent escalation identified in NCS1 operated in NCS2:

- inaccurate signal interpretation and
- the operation of cognitive dynamics.

Inaccurate Signal Interpretation

The most striking driver of inadvertent escalation was the inaccurate interpretation of signals: actions that participants believed remained below critical adversary thresholds were interpreted as escalatory ones by the adversary. A good example of this in NCS2 is Yellow's attack on Purple's dual-capable air base at the end of Round 1 after Purple had responded in the same round to Yellow's initial attack by striking its army. Yellow intended the attack as a controlled escalation designed to demonstrate resolve and did not make a conscious decision to cross what Purple perceived as a key threshold, namely, attacks against its dual-capable aircraft. However, Purple's inaccurate interpretation of the signal was that Yellow had made a deliberate decision to cross a key threshold in order to dominate the escalation process. As Purple's MOD expressed it, this was "a counterforce strike by Yellow to degrade our nuclear capabilities"[55], while Purple's DCSO considered that it was necessary to convey to the international community, and especially Blue, that Yellow's "nuclear hit" was "unacceptable" and that it was "Yellow that [had] activated [the] nuclear component".[56] The observational data show that Yellow had not made a conscious decision to cross this threshold; rather, the decision to attack the dual-capable airbase was taken hastily under time pressure at the end of Round 1. This divergence between the signal intended by the sender and its interpretation by the receiver became a central driver of inadvertent escalation in NCS2, as it had in NCS1.

The Operation of Cognitive Dynamics

As in NCS1, Yellow and Purple were confronted with uncertainty about the other's intentions in an environment where decisions had to be made with ambiguous and limited information in a situation of time pressure. As in NCS1, participants quickly substituted the uncertainty they faced for the comforting certainty that the other had hostile intent towards them. The two cognitive biases at work in NCS1 were again operative in NCS2: participants applied a "'bad faith model"[57] to the adversary's actions while simultaneously maintaining a "peaceful/defensive self-image" in relation to their own.[58]

52 Report from Control in Round 3.
53 Yellow's DCSO in NCS2.
54 Morgan et al., *Dangerous Thresholds*, p.xiii.
55 Purple MOD in NCS2.
56 Purple DCSO in NCS2.
57 Holsti, "Cognitive Dynamics and Images of the Enemy", p.26.
58 The pattern of observed behaviour in NCS2 is what McClafferty argues drove escalation in the May 2025 conflict between India and Pakistan (*Unpacking the May 2025 India-Pakistan Crisis*, p.10.

Neither side exercised SDS towards the other and appreciated how their own actions might be seen as highly threatening by the other because each believed these actions were a direct response to the adversary's provocative and threatening behaviour.

The interaction of these cognitive dynamics narrowed the perceived space for de-escalation. For example, Yellow's strike on Purple's dual-capable air base in Round 1 was interpreted by Purple through the lens of nuclear vulnerability, leading Purple to view the action as an attempt to degrade its nuclear deterrent. Conversely, Purple's nuclear signalling in Round 3–including the convening of the NCC and the forward deployment of tactical nuclear weapons (TNWs)—was interpreted by Yellow as evidence of Purple's "nuclear adventurism."[59]

The escalation dynamics observed in NCS2 did not emerge solely from deliberate attempts by both sides to control the escalation process–or, for some participants, to dominate the "escalation ladder". Rather, the deliberate escalation pathway co-existed, as in NCS1, with inadvertent escalation driven by interactional mechanisms (inaccurate signal interpretation and the operation of cognitive dynamics), producing an "escalation cascade"–multiple pathways of escalation interacting together.

As we saw in NCS1, an escalation cascade is difficult to interrupt; nevertheless, as the next section shows, participants were able to put a brake on the operation of the cascade after some early failures.

c. Off-Ramps and the Challenge of De-Escalation

A critical difference between NCS1 and NCS2 was that despite–or perhaps because of–the higher levels of escalation in NCS2, participants were able in the final round to reach a ceasefire. Using the same conceptual framework as in NCS1, the report identifies three mechanisms that blocked agreement on an off-ramp in the earlier rounds, but also shows how these were overcome, leading to agreement on a ceasefire in Round 4:

- the sequencing problem of communicating a credible commitment to de-escalation whilst escalating;
- cross-domain escalation and nuclear signalling narrowing the space for de-escalation; and
- communicative dynamics that fail to reassure.

The Sequencing Problem of De-Escalatory Signals and Communications

A key obstacle to de-escalating NCS2 was that when each group discussed offering the adversary a face-saving way out of the crisis, such gestures were conditioned on first demonstrating resolve by launching a further military attack. Purple attempted to communicate this to Yellow: when Yellow called through the DCSO hotline in Round 1, Purple's DCSO told their Yellow counterpart that Purple's attack on Yellow's army base in the same round that Purple had "No interest to escalate further".[60]

Yellow's deliberations also provide a clear example of this dynamic. Before Purple escalated with multiple strikes on Yellow's military bases in Round 2 , Yellow had debated whether to reach out through the DCSO hotline or diplomatic channels to signal its interest in de-escalation. Yet these discussions were predicated on Yellow's belief that it had already established a position of escalation dominance. As Yellow's Executive explained, "if we end the conflict now, this will be a political and military victory for us".[61]

59 Purple's minister from the MIB in Round 3.

60 Purple's DCSO in a hotline call to Yellow in Round 1.
61 Yellow's Executive in NCS2.

Similarly, Purple attempted to frame some of its actions as "non-escalatory attacks",[62] but these still involved additional strikes that reinforced the perception in Yellow that Purple was seeking escalation dominance. As Purple's Executive frustratingly put it, "we are looking for de-escalation, but the other side wants a ceasefire on its own terms only after it has hit you".[63]

Purple's MOD recognised that the only way to step off the escalation ladder was to break this cycle, but also saw risks in doing so. After Yellow had crossed at the end of Round 1 what Purple perceived as a key threshold in attacking its dual-capable air base, the MOD presented the choice to colleagues as follows: "to take a call. Accept[ing] this degradation [of Purple's nuclear assets] is an option. Or go for [a] relative response and then say now we are ready for a ceasefire. But this has risks of further escalation".[64] Purple's decision to strike again reflected the grip of the sequencing problem–taking the path of de-escalation was subordinated to what was seen as the critical importance of signalling resolve.

Nevertheless, participants in NCS2 were able to break the cycle of escalation and initiate a process of de-escalation through the ceasefire agreement and commitment to a "Joint Investigation" into terrorist activity in both countries. A key factor in this was the belief on both sides that not only had they done enough to claim a domestic narrative of victory but also a grudging recognition–even if this was less strongly expressed–that any pathway to de-escalation would require allowing the adversary to claim that they had also achieved victory.[65] Purple's Executive was clear in Round 3 that "we need a narrative of victory for our domestic audience".[66] Round 3 saw major escalations on both sides: Purple and Yellow struck oil refineries in each other's country; Yellow and Purple convened their NCC's; Purple used a conventional weapon to create a localised EMP blast; and in response to Purple's forward deployment of tactical nuclear weapons, Yellow fully mobilised on the international border. After these actions, Purple's Executive told their colleagues in Round 4, "we have enough to build a narrative of victory. We both have suffered"[67] and Purple's MIB agreed, "yes this is the moment to take the offramp".[68] Yellow was equally persuaded that they could now step off the escalation ladder and frame their actions as a military and political success. As Yellow's DCSO expressed it, "we have satisfied our publics… so we have a face-saving move, and they hit us with missiles so they can stand down too".[69] Purple's DCSO mirrored this thinking, remarking, "both sides want to climb down. We've taken enough damage… strategic communications will ensure both will take victory".[70]

Cross-Domain Escalation and Nuclear Signalling Narrow the Space for De-Escalation

As the crisis progressed, the appearance of nuclear signalling further complicated efforts to find an off-ramp, increasing the perceived stakes sharply. Purple's decision to convene the NCC and forward deploy its tactical nuclear weapons in Round 3 was interpreted by Yellow as a highly threatening development. Yellow responded by reaffirming in a DCSO call its doctrine of massive retaliation and accelerating mobilisation of its conventional forces. Participants on both sides became more cautious about appearing weak, and restraint was seen as carrying significantly increased political costs. After Purple had convened the NCC and forward deployed TNWs, Yellow's MIB remarked, "I can't see an off-ramp right now".[71] Purple's MOD worried that "we are touching nuclear thresholds. We have deployed our TNWs. Our ground forces are mobilized. As far as Yellow is concerned, it has mobilised armed forces but no nuclear action…we are clearly communicating [that] our thresholds of tolerance are being reached; nuclear option is something under very serious consideration".[72]

On the one hand, in this increasingly nuclearised environment, the space for credible de-escalatory gestures narrowed significantly. However, there is also evidence in the observational data that both sides are increasingly aware that the crisis might be slipping out of control and that the need to find an off-ramp was becoming ever more pressing. This is the moment where there is perhaps a glimpse of the operation of Blight's "fear of nuclear inadvertence"–fear of the crisis slipping out of control becoming more

62 Purple's Diplomat from the MFA in Round 2.
63 Purple's Executive in Round 2.
64 Purple's MOD in Round 2.
65 The role of face-saving narratives in providing an off-ramp in past and future India-Pakistan nuclear crises is discussed in Chiara Cervasio, Nicholas J. Wheeler, and Mhairi McClafferty, *Crisis Prevention and Management in South Asia: Mutual Confidence, Risk, and Responsibility* (BASIC, 2024), pp.16-17, https://basicint.org/report-crisis-prevention-and-management-in-south-asia-mutual-confidence-risk-and-responsibility/.
66 Purple's Executive in Round 3.
67 Purple's Executive in NCS2.
68 Purple's MIB in Round 4.
69 Yellow's DCSO in Round 4.
70 Purple's DCSO in Round 4.
71 Yellow's MIB in Round 4.
72 Purple's MOD in Round 4.

important in the participants' thinking than fear of the adversary.[73] This did not lead to the emergence of shared SDS as adversarial images persisted. However, it introduced a degree of restraint into the escalating dynamic, contributing to the agreement on a ceasefire.

Communicative Dynamics That Fail to Reassure

Communicative dynamics in NCS2 took a very different form to NCS1. NCS2 witnessed continuous communication in all rounds through the DCSO and other channels. Both DCSOs spoke on the hotline every single round and yet contrary to the widely held assumption that increased communication fosters de-escalation, the crisis escalated very rapidly. Multiple participants remarked on the rapidity and intensity of escalation: "the way things escalated was scary in many ways",[74] one said, and another remarked that the "conventional pace [of attacks] was getting shorter and shorter".[75] The co-existence of regularised communication and increasing levels of escalation in NCS2 was also a striking feature of the May 2025 India-Pakistan conflict. As highlighted in McClafferty's report, the May 2025 crisis featured both rapid, intense escalation as well as "the sustained use of the DGMO hotline [which] stands in contrast to several previous India-Pakistan crises".[76]

The reason why communication failed to serve as a tool of de-escalation in NCS2 was because it was not grounded in SDS–an insight whose policy implications are discussed in Part II. The best example of communication-based SDS de-escalating a nuclear crisis is the communicative dynamics that developed between Kennedy and Khrushchev during the CMC. As Holmes and Wheeler illustrate, the exchange of letters between the two leaders became a crucial medium through which they communicated their fear, urgency, and vulnerability, which was essential for developing shared SDS.[77] A similar understanding failed to develop through the telephonically-mediated interpersonal interactions in NCS2. Instead, signals were interpreted through adversarial frames, with decision-makers prioritising the escalatory content of messages over any accompanying attempts at de-escalation.

As the crisis intensified and nuclear fears grew, both sides discussed the possibility of higher-level diplomatic engagement. Yellow's DCSO noted in Round 3 that an MFA-level face-to-face meeting would constitute a "dramatic offer", but cautioned that such a meeting was too "dramatic a move in the game".[78] Purple's Executive, searching as the crisis deepened for an off-ramp, raised the idea of a face-to-face meeting at Executive level. The game design did not have a built-in mechanism for in person leader-to-leader interaction. However, had both Executives sought this, they could have met and tested out each other's intentions. This moment could have been a game changing moment in the simulation, an opportunity to move beyond communication as an "exchange of threats"[79] toward the kind of interpersonal engagement through which shared SDS might have begun to emerge, creating a new pathway to de-escalation in the crisis. However, in the end, this ambitious idea was not seriously pursued by Purple's chief decision-maker. In the reflective dialogue session held on day 2 of the simulation, Purple's Executive explained that "trust levels [were] too low to talk to [their] opposite number in the simulation."[80] Seen in a different light, the problem was that distrust was too high.[81]

This distrust manifested itself in fears on both sides that the adversary might be using the DCSO channel to deceive the other into believing that it was sincerely committed to the ceasefire while planning further escalation. Even after Purple had agreed to a ceasefire in the DCSO channel, Yellow deliberated whether it was a trap and necessary in the words of the MIB to inflict "One more hit"[82] before agreeing to a ceasefire. Yellow's MOD reflected in the debrief, "We thought the ceasefire was a bluff".[83] Yellow rejected a further attack but the Executive instructed that Yellow's forces remain on "high alert"[84] while the MOD called for "vigilance".[85] Purple's MIB echoed the need for such vigilance, remarking that "we need to be careful of any loopholes [and not] get caught off-guard again".[86] The final round of NCS2 ended with a ceasefire, but probably a fragile one. Had the simulation continued, it is by no means certain that the ceasefire would have held.

73 Blight, *Shattered Crystal Ball*, p. 71, p.163.
74 Participant at NCS2 speaking in the debrief on day one.
75 Participant at NCS2 speaking in the debrief on day one.
76 McClafferty, *Unpacking the May 2025 India-Pakistan Crisis*, p.2.
77 Holmes and Wheeler, "Leader Convergence", p.106.
78 Yellow's DCSO in Round 3.
79 John F. Kennedy, "Speech at the American University", National Archives, 10 June 1963, http://www.nationalarchives.gov.uk/education/heroesvillains/transcript/g2cs3s2t.html (accessed 27 March 2026).
80 Purple's Executive reflecting on the lessons from NCS2 on day two of the dialogue.
81 See Chiara Cervasio, Nicholas J. Wheeler, and Mark Saunders, "Distrust Dissolved, Trust Built, Trust Broken: The Rise and Fall of the 1998–1999 Lahore Peace Process", article under review with *Global Studies Quarterly*.
82 Yellow's MIB in Round 4.
83 Yellow's MOD reflecting in the debrief.
84 Yellow's Executive in Round 4.
85 Yellow's MOD in Round 4.
86 Purple's MIB in Round 4.

PART II

Responsible Practices and Policy Recommendations for Managing and Preventing Future South Asian Crisis

As Part I illustrates, both crisis simulations featured heightening cycles of escalation as well as several missed opportunities for de-escalation.

The key question remains what is to be done to break the drivers of escalation, take advantage of potential de-escalation pathways, and prevent crises from breaking out in the first place. To arrive at some answers, the crisis simulations were followed the next day with a structured dialogue facilitated by BASIC, inviting Indian and Pakistani participants to share their reflections and perspectives around their own as well as others' moves and choices. The discussion revealed multiple instances of misperception, miscommunication, and miscalculation that limited the possibilities for de-escalation. Notably, similar dynamics were found as in McClafferty's report, which concluded that "deliberate escalation dynamics combined with mutual misperceptions" decreased crisis controllability in the May 2025 India-Pakistan crisis.[87]

Having reflected on their experience in the simulations, dialogue participants then discussed in mixed break-out groups what responsible practices and associated policy recommendations could have contributed to de-escalation and crisis management, as well as how such recommendations could also be relevant for possible future India-Pakistan nuclear crisis scenarios. This section sets out six policy recommendations that have emerged during the discussions and that are grounded in responsible practices.

It is also notable that these recommendations arise out of a specific context where participants were thinking about responsibilities after going through an immersive nuclear crisis scenario. It is fascinating to reflect, and the subject of future planned work at BASIC, how far the "escalation cascades" in NCS1 and NCS2 might not have occurred in the way they did had these proposed policy recommendations already been implemented. In some instances, recommendations from the Bahrain dialogues overlap with responsible practices and policy recommendations that participants in other BASIC dialogues had identified, bolstering and validating previous findings.

87 McClafferty, *Unpacking the May 2025 India-Pakistan Crisis*, p.2.

POLICY RECOMMENDATION 1

Promoting Empathically Grounded Communication

Communication is often recommended as a go-to solution for better crisis management–as a mixed break-out group of our participants suggested following NCS1, both sides needed to "pick up the phone".[88]

However, as Part I of this report illustrates, the mere presence of communication is not in itself a driver of de-escalation. NCS1 and NCS2 provide examples of the different ways that non-empathically grounded communication exacerbated the crisis and blocked offramps. While communication grounded in that particular form of empathy known as SDS is not a panacea, it increases the likelihood that overtures would be accurately received and reciprocated.

The ideal model of empathic communication would be an exchange which: (i) clearly explains the rationale behind one's own actions, and why it is believed to be defensive and non-escalatory; (ii) acknowledges that it may not be interpreted that way, and to hear the other side's perspective; and (iii) clarifies ambiguities and offers reassurances. Explicitly acknowledging and addressing the emotional drivers of escalation such as fear and pride, and how one's own action affects the cognitive and emotional states of the other (and vice versa), could lead to communication that is reassuring rather than threatening. Although such a model could be difficult to achieve, communication that is even partly guided by these principles would be beneficial.

The question remains how to encourage officials and decision-makers to engage in empathically grounded communication which requires the exercise of SDS. Although it is possible for SDS to develop between two leaders during a nuclear crisis, as it occurred during the CMC,[89] this cannot be relied upon as a mechanism of de-escalation as other nuclear crises show.[90] Consequently, it is essential to explore how SDS can be fostered in the thinking and practices of crisis managers before a nuclear crisis breaks out. If yet another crisis occurs, it is possible to envision a 'SDS' checklist or guide that those in charge of communication ought to follow ahead of any statements or exchanges. The checklist would remind the communicator of the ideal model of empathic communication outlined above. This could serve as a firebreak against communication driven by unhelpful cognitive and emotional biases as outlined in Part I.

88 Participant at first dialogue.

89 Holmes and Wheeler, "Leader Convergence", pp.103-6.

90 On the evening of 27 February 2019, the highpoint of the 2019 Pulwama-Balakot crisis, with both sides reportedly exchanging missile threats, the Pakistani High Commissioner in Delhi, Sohail Mahmood, reached out to his Indian counterpart Ajay Bisaria to say that Prime Minister Imran Khan wanted to talk to Prime Minister Narendra Modi. According to Bisaria's own recollection, the Indian Prime Minister's office replied to say that Modi "was not available at this hour" but if Khan had "any urgent message to convey", he should convey it through Bisaria (Ajay Bisaria, *Anger Management: The Troubled Diplomatic Relationship between India and Pakistan* (Aleph Book Company, 2024), Kindle, p. 417; see also Cervasio, Wheeler, and McClafferty, *Crisis Prevention and Management in South Asia*, p.42.)

POLICY RECOMMENDATION 2

Improving and Creating Trusted Channels of Communication

With the caveat offered by Policy Recommendation 1, participants discussed at length the different ways that communication can be improved and encouraged, including the need to build relationships of trusted counterparts across India and Pakistan.

As argued by Akhtar and Neog, "communication has always been the first casualty of any crisis between India and Pakistan… there is a need for more robust and resilient lines of communication that are sustained not only during crises, but beyond crisis times".[91] Therefore, trusted relationships developed at different societal levels (civil societies, expert communities, governmental, etc.) may help both sides better navigate an ongoing crisis. Civil society actors and experts across both countries could accurately convey ground truths and dispel misinformation, while trusted military and governmental counterparts may better manage escalation and seek de-escalation pathways.

Participants suggested that new communication channels could be created, such as a hotline between India and Pakistan's National Security Advisors, revitalising the 2004 Foreign Secretary hotline, or establishing a leader-to-leader hotline.[92] As Cervasio et al. wrote in 2024, the lack of a direct channel between leaders "exacerbates the difficulty of distinguishing credible signals from noise".[93] Moreover, because the DGMOs lack the political authority to initiate a ceasefire,[94] the DGMO hotline has limited utility for crisis management, whereas a leader-to-leader hotline could generate the necessary political will. This could aid in addressing the problem in sequencing de-escalatory signals and communication amidst a crisis.

Relatedly, both countries could consider establishing a tri-services communication channel between the Chiefs of Army, Navy, and Air Force. A participant explained that because the DGMO hotline works to diffuse low-level incidents such as accidental incursions across the line of control, establishing similar channels for the air and maritime domains could help prevent low-level accidents or incidents from escalating into a crisis seeing as the locus of conflict has shifted away from the ground towards stand-off weaponry (e.g., drones and missiles). This may also assist in better managing cross-domain escalation dynamics, which was discussed in Part I as a factor complicating escalation management and the blocking of offramps.

While it is important to maintain bilateral channels of emphatic communication during a crisis, this recommendation should be implemented during non-crisis periods. As a participant stated, communication in non-crisis periods affects crisis dynamics: hostile rhetoric in peacetime influences perceptions of intent during a crisis.[95] Extending this observation, empathic communication through channels in peacetime could break down distrust, build trust, and potentially diffuse the outbreak of another crisis. As another participant noted, to manage escalation and to reach a ceasefire during a time of crisis, the groundwork needs to be laid during times of peace.[96]

91 Rabia Akhtar and Ruhee Neog, "Conclusion: Tu Tu-Main Main: Policy, Scholarship, and India-Pakistan Communications" *Crisis Communications: Indian and Pakistani Perspectives in Responsible Practices* edited by Rabia Akhtar, Chiara Cervasio, Ruhee Neog, Alice Spilman and Nicholas J. Wheeler (BASIC, 2023), p. 35, https://basicint.org/compendium-crisis-communications-indian-and-pakistani-perspectives-on-responsible-practices/.

92 Participants at the second dialogue. See also Syed Ali Zia Jaffery and Nicholas J. Wheeler, "Why a hotline is needed to help bring India and Pakistan back from the brink of a disastrous war", *The Conversation*, 7 May 2025, https://theconversation.com/why-a-hotline-is-needed-to-help-bring-india-and-pakistan-back-from-the-brink-of-a-disastrous-war-255727.

93 Chiara Cervasio, Nicholas J. Wheeler, and McClaffery, *Crisis Prevention and Management in South Asia*, p.7, pp.25-26.

94 McClafferty, *Unpacking the May 2025 India-Pakistan Crisis*, p.24.

95 Participant at first dialogue.

96 Participant at NCS2.

POLICY RECOMMENDATION 3

Fostering Responsible Communication with the Public

In line with the previous recommendations, participants also identified the need to reduce mutually hostile rhetoric.

Nationalistic, militaristic, hawkish jingoism spread through the media impedes attempts at empathic communication and generates distrust. Previous BASIC dialogues have identified this factor as a major impediment to effective communication in India-Pakistan crises[97] and this was evident in NCS1 and NCS2 as participants paid attention to the nationalistic and hawkish statements emanating from the other side. Some of these statements were injected on purpose from Control, while others were a result of participant actions to intentionally fan flames in response to domestic pressure, shore up national unity and/or intimidate the opposing side. A good example of how this could fuel escalation can be seen in NCS1. Purple's Executive was worried that the nationalist press in Yellow was pushing its government into a corner where they would be forced to escalate; Purple's MIB then suggested using cyber-attacks to disrupt Yellow's media centres because "where the poison is coming from – you neutralize the poison".[98] A key policy recommendation would therefore be the promotion of responsible public communication in India and Pakistan through a number of different measures. One such measure aligns with what a previous BASIC dialogue identified as enforcing guidelines for responsible reporting by reinstating the 1950 Joint Press Code "to prevent both sides from disseminating news and mischievous opinion calculated to rouse communal passion or against the territorial integrity of the other or warmongering".[99]

The media should also avoid sensationalism, and participants raised the need for independent fact checking of media and government statements, to assess and verify claims and to call out false or misleading information.

Additionally, a code of conduct on information dissemination during crises could be developed. Mutually agreed guidance and principles to not amplify inflammatory rhetoric and not spread deepfakes could lead to a healthier media ecosystem. One of the reasons that the May 2025 crisis was difficult to navigate was the high amount of misinformation including deepfakes of Indian and Pakistani officials.[100]

97 Cervasio, Wheeler, and McClaffery, *Crisis Prevention and Management in South Asia*, p.7, p.28.

98 Purple's MIB in NCS2.

99 Nirupama Subramanian, "Media Coverage for Mutual Understanding: What Way Forward for Indian and Pakistani Journalists?", in *Crisis Communications: Indian and Pakistani Perspectives on Responsible Practices*, edited by Rabia Akhtar, Chiara Cervasio, Ruhee Neog, Alice Spilman, and Nicholas J. Wheeler (BASIC, 2023), https://basicint.org/compendium-crisis-communications-indian-and-pakistani-perspectives-on-responsible-practices/; See also Avtar Singh Bhasin, *India-Pakistan Relations 1947-2007: A Documentary Study (Set of Ten Volumes)* (New Delhi: Geetike Publishers, 2012), https://mea.gov.in/Images/pdf/India-Pakistan-std.pdf.

100 Ruhee Neog, "A Live-Streamed Crisis: Technology and the Erosion of Information Control in the 2025 India-Pakistan Crisis" (BASIC, 7 October 2025), https://basicint.org/a-live-streamed-crisis-information-control-technology-and-the-2025-india-pakistan-crisis/.

POLICY RECOMMENDATION 4

Creating a Shared Narrative of Past Crises and Cooperative De-Escalation

The May 2025 crisis generated, as McClafferty finds, "two deeply divergent interpretations within practitioner communities in India and Pakistan regarding its starting point, escalation, and resolution".[101]

This is concerning, as Akhtar explains: "History teaches that crisis stability relies not on divergent victories, but on shared understandings of risk, red lines, and restraint. When adversaries don't learn the same lessons about thresholds and dangers, the risk is not just of future crises, it's of future crises spinning out of control".[102] If a narrative arises on one or both sides that they won a crisis through "escalation dominance", then this creates two risks: first, it may embolden the side that believes it "won" to push harder next time and second, if one side believes the other thinks this, it may compel them to escalate rather than show restraint in the next conflict.[103]

Motivated by these concerns, participants identified in the reflective discussions in Bahrain the need to bridge diverging perceptions on the origins, dynamics, and endings of crises. They discussed how to construct new shared narratives around "cooperative de-escalation"–framing crises not as a "competition in risk taking" but as ones where both sides can 'win' through restrained and conciliatory approaches".[104] The goal of these endeavours would be to develop a new shared narrative of "cooperative de-escalation". A component of the ceasefire agreement in NCS2 was Purple's offer of a joint investigation into the initial terror incident, which was accepted by Yellow. When instances of cooperation arise such as these, they should be championed by political leaders on both sides and sold to domestic constituencies.

Real-life examples should be investigated and highlighted, both for lessons that were learned (e.g., what made it possible) as well as to instill a belief that it is possible to work together. Track 2 initiatives could bring together experts and retired officials from both countries to explore the possibilities for new collaborative understandings of how escalation dynamics have unfolded in past crises. Ideally, and drawing on the "critical oral history" method pioneered by Blight, Janet Lang, and David Welch,[105] this would include those with first-hand experience of managing India-Pakistan nuclear crises. In surfacing misperceptions, inaccurate signal interpretation, and cognitive dynamics that fuelled escalation in past crises, the goal would be to arrive at a new shared narrative that could inform new practices and policies promoting empathically motivated communication grounded in SDS.

Cervasio et al.'s 2024 BASIC report recommended the creation of a South Asian Standing Communications Secretariat (SASCS) which would be the kind of vehicle within which this kind of dialogial critical oral history could take place. [106] As BASIC has found that even a one-day crisis simulation provides critically important research material and findings, SASCS could run longer crisis simulations to further interrogate signal interpretation, escalation and de-escalation dynamics across different crisis scenarios, past, present and future.

101 McClafferty, *Unpacking the May 2025 India-Pakistan Crisis*, p.5.
102 Rabia Akhtar, "Two Rivals. One Crisis. A War Of Narratives" (BASIC, 30 July 2025), https://basicint.org/two-rivals-one-crisis-a-war-of-narratives/.
103 McClafferty, *Unpacking the May 2025 India-Pakistan Crisis*, pp.22.
104 Cervasio, Wheeler, and McClafferty, *Crisis Prevention and Management in South Asia*, p.17.
105 Blight discusses the value and contribution of the critical oral history method to studying nuclear crises in *The Shattered Crystal Ball*, especially pp.12-14, pp.79-83. See also James G. Blight and David A. Welch, *On the Brink: Americans and Soviets Reexamine the Cuban Missile Crisis* (New York: Noonday Press, 1990).
106 Cervasio, Wheeler, and McClafferty, *Crisis Prevention and Management in South Asia*, p.7, pp.23-24, pp.26-27.

POLICY RECOMMENDATION 5

Strengthening Track 2 Initiatives and Next Generation Involvement

Participants across both dialogues also wondered how the next generation would have behaved in their shoes.

Interestingly, when BASIC tested the crisis simulation online with a cohort of next generation Indian and Pakistani experts, escalation dynamics played out very similarly to what happened during the in-person simulations in Bahrain. This kind of engagement provides a valuable opportunity for next generation experts to understand crisis dynamics. Expanding on this idea, participants raised the value of engaging with the next generation in workshops involving futures methodologies to generate fresh and innovative thinking. The focus of such workshops could be on the impact of emerging and disruptive technologies on nuclear risks, crisis simulation exercises, and even non-military topics such as climate change issues.

This aligns with Cervasio et al.'s 2024 BASIC report recommending the 'Shared Responsibility to Cultivate Constituencies of Peace with the Next Generation of Experts and Policy-Makers'.[107] The importance of doing so has only risen as the May 2025 crisis has likely exacerbated the detachment and negative perceptions that new generations in both countries have towards each other. In the same report by Cervasio et al., the authors identified intimate enmity[108] as a key factor upholding mutual confidence between India and Pakistan that their adversary will not put them in a situation where the choice is between accepting a humiliating diplomatic defeat or escalating to the nuclear level. Worryingly, McClafferty found no evidence that intimate enmity factored into why the May 2025 crisis de-escalated.[109]

This context makes it even more concerning that, unlike how current and older generations of government officials, policymakers, and experts had comparatively more opportunities to build personal relationships and intimacy, younger Indians and Pakistanis today have scant avenues to do so. It is crucial to engage with the next generation to foster new ties of intimacy through them coming together to understand escalation dynamics and collectively think about joint crisis prevention, crisis management, and de-escalation pathways for India-Pakistan crisis scenarios, given that they will be the crisis managers of the future.

In addition to next generation involvement, this recommendation makes the case for developing sustainable relationships between the Indian and Pakistani nuclear policy communities–possibly through a body like SASCS. Indeed, participants of the Bahrain dialogue raised the idea of creating a dedicated nuclear risk reduction centre to better understand signalling in a crisis. As Part I covered, miscommunication and misunderstandings featured prominently even in a relatively simple abstracted simulation. Participants suggested that a 'Common Strategic Lexicon' could be developed for both domestic audiences in India and Pakistan to better understand the implications and intended meaning of each other's statements and key terminologies (e.g., restoring deterrence, restraint, the escalation ladder, strategic stability, etc.). The lexicon could be developed through a joint commission, involving think tanks and academia, and it could be published in the vernacular of each country (i.e., Urdu, Hindi and Punjabi).

107 Cervasio, Wheeler, and McClaffery, *Crisis Prevention and Management in South Asia*, p.7, pp. 27-28.

108 As highlighted by Cervasio, Wheeler, and McClafferty in *Crisis Prevention and Management in South Asia* (p.14), this term captures India and Pakistan's close ties that have been established through a shared history, common cultural heritage, and geographical proximity, combined with enduring hostility rooted in the 1947 of British India and resulting territorial dispute over Jammu and Kashmir.

109 McClafferty, *Unpacking the May 2025 India-Pakistan Crisis*, p.22.

POLICY RECOMMENDATION 6

Maintaining, Improving, and Creating Confidence Building Measures

There was broad agreement among participants, as well as interviewees, that existing confidence building measures (CBMs) are valuable, but also in need of modernisation.[110]

Although the Agreement Between India and Pakistan on the Prohibition of Attack against Nuclear Installations and Facilities (Non-Attack Agreement (NAA))[111] facilitates a valuable annual exchange of information which has not ceased through the highs and lows of the bilateral relationship, participants recognised that the list has not been updated with new facilities. There was also a suggestion to extend the scope of the agreement of the pre-notification for ballistic missile flight tests[112] to cover hypersonic and cruise missiles.[113] Any extension could also consider pre-notification of tests of drone swarms.

As for new CBMs, participants raised the suggestion of an agreement not to conduct cyberattacks against each other's nuclear installations and facilities. Because the existing NAA does not cover Nuclear Command, Control, and Communication (NC3) systems and facilities, a new agreement could involve a commitment on not using cyber capabilities to degrade NC3 systems.[114]

As Part I discussed, cyberattacks were conducted against critical national infrastructure (including communications networks) in NCS2, and participants recognised that this was an escalatory move. It remains unknown whether Purple's strikes against Yellow's C4ISR in NCS1 in Round 4 would have escalated to further attacks against NC3 had the simulation carried on. Participants agreed that extending the NNA to prohibit cyber and kinetic attacks against NC3 facilities and assets–a recommendation in several BASIC reports–would make an important contribution to enhancing crisis stability.[115] Because non-attack on NC3 systems and an agreement against cyberattacks are frequent recommendations from previous BASIC dialogues, it is notable that the crisis simulations strongly suggest their implementation would indeed be a responsible practice. Notwithstanding that breaches of agreements could happen in a crisis, having such agreements in place could still help temper the pace and scope of crisis escalation. For instance, Akthar and Neog argue that extending the NAA in this way would "reduce the probability of an attack on nuclear facilities."[116]

110 Interviewee 8, 15, 18, 21, 30.

111 Agreement between India and Pakistan on the Prohibition of Attack Against Nuclear Installations and Facilities, signed on 31 December 1988, https://www.nti.org/wp-content/uploads/2021/09/india_pakistan_non_attack_agreement.pdf.

112 Agreement Between India And Pakistan On Pre-Notification Of Flight Testing Of Ballistic Missiles, signed on 03 October 2005, http://mea.gov.in/Portal/LegalTreatiesDoc/PA05B0591.pdf.

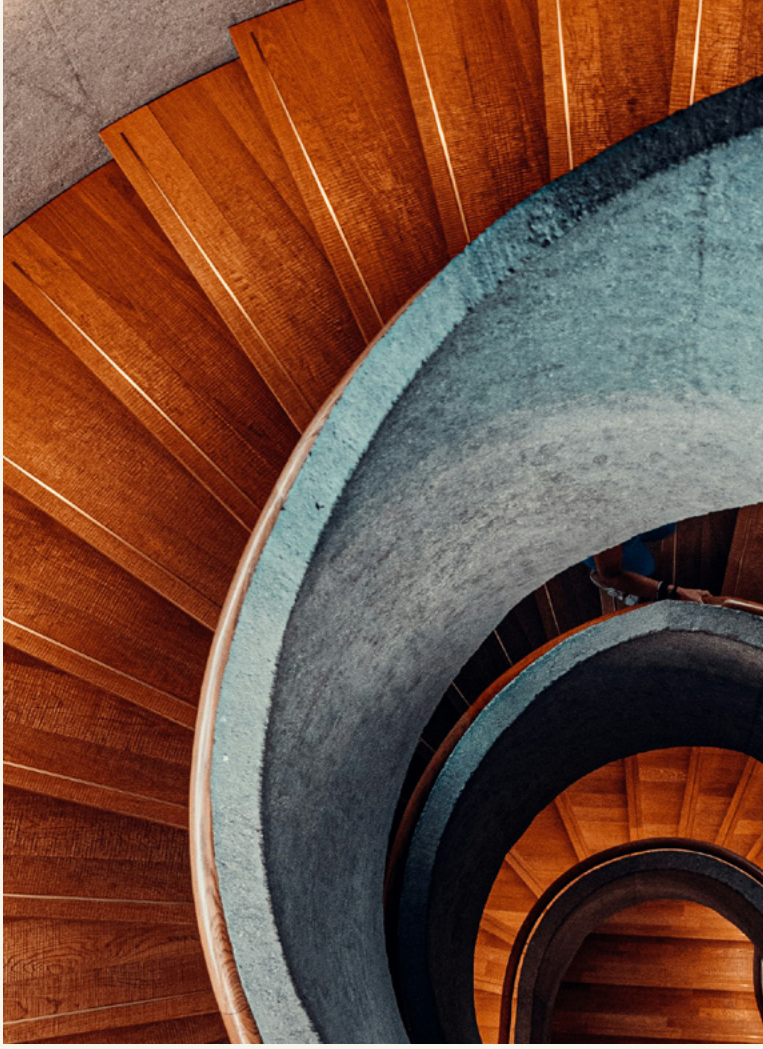
113 This recommendation was also made in Alice Spilman, Chiara Cervasio, and Eva-Nour Repussard, *Exploring Nuclear Risk Reduction Pathways in Southern Asia through Nuclear Responsibilities* (BASIC, 2023), https://basicint.org/report-exploring-nuclear-risk-reduction-pathways-in-southern-asia-through-nuclear-responsibilities/.

114 This recommendation was also made in Repussard, Wheeler, and Cervasio (eds.), *Emerging and Disruptive Technologies in South Asia*.

115 See also Rabia Akhtar, Ruhee Neog, Hina Pandey, and Adil Sultan, "Addressing Emerging Technology Risks for Crisis Prevention and Management in South Asia", in *Emerging and Disruptive Technologies in South Asia: Perceptions of Risks and Responsibilities in Crisis Management and Prevention*, edited by Eva-Nour Repussard, Nicholas J. Wheeler, and Chiara Cervasio (BASIC, 2025), https://basicint.org/report-emerging-and-disruptive-technologies-in-south-asia-perceptions-of-risks-and-responsibilities-in-crisis-management-and-prevention/.

116 Rabia Akhtar and Ruhee Neog, *Through the Sands of Time: The Enduring Legacy of the India-Pakistan Non-Attack Agreement* (The Stanley Center for Peace and Security, 2024), https://stanleycenter.org/wp-content/uploads/2024/07/Through-the-Sands-of-Time-Non-Attack-Agreement.pdf.

As **the seas become a more prominent battleground** for future India-Pakistan crises, it brings about unique escalation risks as well as potential triggers for future conflict.



Separately, an agreement for incidents at sea could be considered to better manage maritime sensitivities and escalation risks. Such a mechanism would establish clear rules of behaviour, communication protocols, and procedures for unplanned encounters at sea, to increase predictability, transparency, and better crisis management. The maritime domain was identified by dialogue participants, as well as in expert interviews conducted by BASIC in advance of the dialogue, as an area requiring further research.[117] As the seas become a more prominent battleground for future India-Pakistan crises, it brings about unique escalation risks as well as potential triggers for future conflict.

Finally, multiple interviewees, and some dialogue participants, raised the Indus Waters Treaty (IWT) as a crucial and longstanding confidence-building measure, seeing its abeyance as greatly distressing and with the potential to lead to conflict.[118] As the IWT was suspended by India on 23 April 2025, more clarity regarding the future of the treaty and work on reinstituting it could be prioritised. Herein lies great potential to reduce tensions and rebuild the India-Pakistani relationship post-May 2025. For additional analysis and proposals, BASIC's 2024 report authored by Cervasio et al. has an extensive section on the 'Shared Responsibility to Monitor and Update Confidence-Building Measures (CBMs)'.[119]

117 Interviewee 2, 7, 14, 22, 23, 26, 29, 30. See also Eva-Nour Repussard, *Nuclear Responsibilities at Sea* (BASIC, 2023), https://basicint.org/report-nuclear-responsibilities-at-sea/; Syed Faisal Ali Shah, "The Silent Shield: Naval Readiness and Deterrence Signalling in May 2025" in *Strategic Reckoning: Perspectives on Deterrence and Escalation Post-Pahalgam*, edited by Rabia Akhtar (Lahore: The Center for Security, Strategy and Policy Research, 2025), https://csspr.uol.edu.pk/csspreebook/?__cf_chl_tk=7ExKTOWf1FSAWgfbOaShk8iG4vVkTaohXm6Sy82moMk-1774866043-1.0.1.1-MyfMRvLqfoCPu2wjPk1cMYsXso4WsjiW73K22tr3mTc.

118 Interviewee 1, 4, 7, 11, 13, 15, 18, 20, 26, 27, 28. See also McClafferty, *Unpacking the May 2025 India-Pakistan Crisis*, p 19.

119 Cervasio, Wheeler, and McClafferty, *Crisis Prevention and Management in South Asia*, p.7, pp. 26–27.

Conclusion

This report examines the drivers of escalation and de-escalation in future India–Pakistan nuclear crises, using as a methodological vehicle two BASIC-facilitated simulations with Indian and Pakistani participants, complementing and extending McClafferty's 2026 companion report.

Our central finding is that two concepts of escalation–deliberate and inadvertent–operated simultaneously and interactively during the simulations–what we call an "escalation cascade". Deliberate escalation was driven by the perceived need to restore deterrence credibility, avoid being out-escalated by an opponent or achieve escalation dominance themselves, and respond to reputational and especially domestic political pressures.

Inadvertent escalation emerged out of an interactive process in which cognitive dynamics led to signals being inaccurately interpreted and adversary thresholds crossed unintentionally. In both crisis simulations (NCS1 and NCS2), a spiraling escalation cascade emerged that was neither planned nor anticipated by the participants themselves. Both while playing the scenario and in the subsequent reflections sessions, participants expressed their surprise at the tempo of escalation, even though each team believed they were acting with restraint. The value of the escalation cascade concept is that it captures this gap between intentions and outcomes.

The escalation cascades that emerged in NCS1 and NCS2 highlight the challenge of finding an off-ramp in future India-Pakistan nuclear crisis scenarios characterised by emerging technologies, cross-domain interactions, and deeply entrenched adversarial perceptions. This reinforces the finding from previous BASIC reports as to the importance of shifting the analytical and policy focus towards crisis prevention, but also to thinking more creatively about crisis de-escalation as a concept in itself. Part II of the report sets out an agenda for this by identifying six policy recommendations aimed at preventing India-Pakistan crises from occurring, and if they occur, de-escalating them as early as possible: these focus on cultivating empathically grounded communication, developing new trusted channels of interaction, and creating opportunities, especially at the next generation level, for increased mutual understanding and trust-building outside of crisis conditions.

A key contribution of the report is to highlight the role of psychological dynamics in producing escalation cascades. Uncertainty is a defining feature of nuclear crises, and participants operated in an environment characterised by limited and conflicting information, and compressed decision-making timelines. Uncertainty could have produced what has been called "responsive unknowing"[120]—an openness, enabled by the exercise of SDS, to the possibility that the adversary might be acting defensively and that escalation may be driven by a security dilemma spiral in which neither side appreciated the defensive intentions of the other. However, the simulations show that participants substituted the condition of uncertainty for a certainty of the other's hostile intent. They did this through applying a "'bad faith model"[121] of the adversary while simultaneously maintaining a "peaceful/defensive self-image" in relation to their own actions. These cognitive biases operated on both sides, ensuring that actions intended as limited and non-escalatory were interpreted as escalatory by the other side, reinforcing the escalation cascade.

The simulations also demonstrate the central role of emotions in shaping escalation/de-escalation. Participants explained their decisions to use force in the rationalist language of strategy, but the observational data reveals how emotions–fear, pride, anxiety, anger, and humiliation–shaped what counted as rational behaviour. With regard to fear, one of the most important findings from the Bahrain simulations was that two different forms of fear operated in NCS1 and NCS2. The first—fear of the adversary—was dominant in NCS1 and was predicated on each side interpreting the other's actions as evidence of hostile intent. Under these conditions, escalation was driven upwards and opportunities for de-escalation were missed or rejected. The second form—fear that events may be slipping out of control, what Blight terms "fear of nuclear inadvertence"—became more visible in NCS2, particularly as the crisis approached the nuclear threshold. This shift in the referent object of fear—from the adversary to the crisis itself—interrupted the escalation cascade. While it did not produce the full emergence of shared SDS between Indian and Pakistani participants, it generated a limited recognition of shared vulnerability and a concomitant sense of shared responsibility to de-escalate–contributing to the possibly-fragile ceasefire reached in the final round.

At the same time, the simulations underscore the difficulty of translating moments of "nuclear inadvertence" into a sustained process of de-escalation. NCS2 ended before the ceasefire could be tested, and it remains uncertain whether it would have survived in follow-on rounds. Adversarial images remained entrenched and distrust continued to shape how signals were interpreted. Put differently, "fear of nuclear inadvertence" did not dissolve the underlying cognitive and emotional barriers to SDS, but rather coexisted with them.

The use of altercasting in NCS2—assigning participants to play the adversary—was intended to generate a better understanding of the other side, potentially leading to the cultivation of increased SDS. Instead, altercasting appears to have internalised and deepened adversarial assumptions. Participants projected their beliefs about the adversary onto the roles they inhabited, reinforcing bad faith models and peaceful/defensive self-images. This intensified negative emotional dynamics, particularly fear and anxiety, contributing to more rapid escalation.

However, the simulations also highlight that SDS may be more effectively cultivated after participants have experienced a crisis, rather than during it. The most important insights from the Bahrain dialogues came in the post-simulation reflections, where participants explained their motivations and interpretations, and heard how the adversary had interpreted their actions, often very differently to what they had intended. While simulations cannot fully replicate the existential fear associated with real-world nuclear crises, perhaps their greatest value lies in capturing the "psychological life" of a crisis in a way that complements historical and interview-based approaches.

Simulations provide the closest approximation to the lived experience of decision-makers in a nuclear crisis, and the two simulations run by BASIC provided an opportunity for structured reflection and dialogue on the escalation pathways that can be expected to emerge in a future India-Pakistan nuclear crisis. Participants recognised how misperceptions had fuelled escalation in the simulation, the importance of being aware of cognitive biases, and how their own actions had contributed to the fear and insecurity of the other side. In this sense, this report—and BASIC's wider work in South Asia—can be understood as an attempt, working with dialogue partners and participants, to develop responsible practices, and associated policy recommendations, that can cultivate SDS between Indian and Pakistani top-level decision-makers, officials, and wider nuclear policy communities in the two countries.

120 Cervasio, Wheeler, and Saunders, "Distrust Dissolved, Trust Built, Trust Broken".
121 Holsti, "Cognitive Dynamics and Images of the Enemy," p.26.

BASIC promotes meaningful dialogue amongst governments and experts in order to build international trust, reduce nuclear risks, and advance disarmament.

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