
RESOLVING THE SINO-INDIAN BORDER DISPUTE

Building Confidence through Cooperative Monitoring

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President Reagan's famous adage "trust but verify" highlights a crucial element of the arms control process: the verification of treaty compliance so that implementation is both possible and worthwhile. During the cold war years, superpower arms control negotiations were replete with disagreement and compromise on the issue of verification in terms of both its scope and means. More recently, the multilateral negotiations on the Chemical Weapons Convention and the Comprehensive Test Ban Treaty (CTBT) also demonstrated the salience of verification issues. Indeed, one of the reasons the U.S. Senate cited in rejecting the CTBT is that the treaty is unverifiable. To a significant extent then, verification has actually determined and will likely continue to affect how arms control treaties and agreements are negotiated and whether they can be implemented.

While analysts are largely right in pointing out the difficulties and challenges the issue of verification poses to arms control, they may have missed an important development, namely that verification can also be designed and indeed has been carried out in a cooperative manner. This would mitigate at least partially the resistance to verification out of concerns over sovereignty,

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confidentiality, and general distrust of one's negotiating counterpart. Cooperative monitoring, which facilitates the acquisition, processing, analysis, and sharing of information and data by using commercially available technologies, is becoming a vital component of treaty implementation and security building in bilateral, regional, and global contexts. There is a growing literature in assessing the utility of cooperative monitoring in areas as diverse as Europe, the Middle East, and Northeast Asia and in agreements as distinct as the Conventional Forces in Europe (CFE) Treaty and military disengagement in the Sinai Peninsula. Some cooperative monitoring experiences have proved quite positive and could serve as useful precedents for potential future application in regional arms control and peacekeeping. These include implementation of the CFE Treaty and the Intermediate-Range Nuclear Forces Treaty, bilateral aerial overflight agreement between Romania and Hungary, and the Sinai Field Mission (which in no small part contributed to the signing of the Camp David Agreement between Israel and Egypt).¹

Cooperative monitoring, by its very nature of making information available to concerned parties, has great potential for building trust and confidence between states. This article examines the potential role cooperative monitoring can play in implementing the two recent confidence-building measure (CBM) agreements signed by China and India in 1993 and 1996. Specifically, the article aims to achieve several objectives. First, we aim to provide a brief account of Sino-Indian relations over the past 20 years (1979–2001), identifying major disputes, discussing the progress made through the bilateral confidence-building process, and noting the remaining obstacles to the implementation of the two CBM agreements. Second, we analyze the two agreements, examining key provisions and assessing their verifiability, and hence the likelihood of enforcement. Also, identified are both the technologies that are available and appropriate in designing verification models and certain provisions in the agreements that lend themselves to joint verification and cooperative monitoring by China and India. Third, we develop and present three models for cooperative monitoring based on the provisions of the agreements, appropriate technologies, and possible locations for their implementation. A discussion of the realistic constraints on Sino-Indian CBM implementation follows and then the article's conclusion.

The importance of this study is at least threefold. To begin with, it provides yet another case study to test some of the assumptions derived from

1. Michael G. Vannoni, *Sensors in the Sinai: A Precedent for Regional Cooperative Monitoring*, Sandia Report SAND96-2574 (Albuquerque, N.M.: Sandia National Laboratories [SNL], June 1998); and Arian Pregoner, Michael Vannoni, and Kent L. Biringer, *Cooperative Monitoring of Regional Security Agreements* (Albuquerque, N.M.: SNL, November 1996). For further references, see the home page of the Cooperative Monitoring Center (CMC) at SNL on the World Wide Web at <<http://www.cmc.sandia.gov>>.

existing literature on European and the Middle Eastern cooperative monitoring experiences. In addition, it is underscored by the growing demands for cooperative monitoring in implementing arms control agreements and supporting peacekeeping missions in coming years in various global and regional contexts. There is a growing need to analyze and compare different models of cooperative monitoring and hopefully provide useful precedents for other regions of tension. Last but not least, given that cooperative monitoring both as a concept and practice is still something new to China and India, we hope the findings can demonstrate the positive role of cooperative monitoring in dispelling some concerns and misperceptions between these two countries. In doing so, the study also seeks to present a strong case for the two countries to open up new avenues of cooperation and confidence building. This article does not confine itself only to the broad political and strategic perspective for such cooperation but also provides detailed, empirical and practical models of what an acceptable cooperative monitoring regime would look like on the ground. It offers three (short-, medium-, and long-term) models in the Sino-Indian context and also identifies potential areas along the disputed border where these models could be tried out. The potential Sino-Indian cooperative monitoring experience, should the three models proposed be put into practice, could also be useful in the India-Pakistan case.

Sino-Indian Relations, 1979–2001

China and India share one of the longest undemarcated and disputed borders in the world. No treaty has ever formally delimited the disputed boundary, which affects over 125,000 sq. km in three distinct sectors. The border issue was the primary cause for the Sino-Indian confrontation in the late 1950s and led to a brief but bitter border war in 1962. The war left a deep scar on bilateral relations. Since then, India and China clashed several times in the 1970s and 1980s, with the standoff at Sumdorong Chu in the eastern sector from October 1986 to March 1987 being the most serious of them. In this instance, the Indian army conducted a large-scale military exercise, code-named Checker Board, in this area along the Sino-Indian border. China responded by mobilizing its troops, which led to an eyeball-to-eyeball confrontation. As the crisis escalated, cooler heads prevailed and both sides pulled back. Troops were removed from their advanced posts and back to their original outposts in the spring of 1988.²

Nonetheless, since the late 1970s, Beijing and New Delhi have also sought to resolve the issue through border negotiations and CBMs. In 1976 the two

2. For background and analysis, see Robert G. Sutter, *China-India Border Friction: Background Information and Possible Implications*, CRS (Congressional Research Service) Report for Congress 87-514F (Washington, D.C.: CRS, June 19, 1987).

countries exchanged ambassadors. In February 1979, Indian Foreign Minister Atal Bihari Vajpayee visited China. Slow and tentative steps were taken to reduce tension and the two countries began to explore ways to resolve their territorial disputes. To date no solution of the border issue has been worked out. In 1993 and 1996, though, China and India signed two important agreements to maintain peace and tranquility and reduce tensions along the Line of Actual Control (LAC), including force reductions and limitations on military activities.³ In addition, over the past two decades, the process of Sino-Indian normalization and confidence building have gradually evolved, marked by the following three distinct, yet reinforcing, activities:

- Summit meetings between the heads of state and government;
- Regular exchange visits between high-ranking officials including the military, especially at the ministerial level (see Table 1); and
- A slow process of institutionalizing a series of CBMs.

*Bilateral Sino-Indian CBM Initiatives:
Progress and Obstacles*

For analytic purposes, the last process can be further divided into three distinct sets of activities. The first consisted of the Sino-Indian border talks. Eight rounds were held between 1981 and 1987. The second is the Joint Working Group (JWG) and its attached Diplomatic and Military Experts Group. Since 1989, 12 JWG meetings have been held (see Table 2). Finally, the concrete result of this process was embodied in the two CBM agreements: the Agreement on Maintaining Peace and Tranquility in the Border Areas along the Line of Actual Control (Beijing, September 1993) and the Agreement on Confidence-Building Measures in the Military Field along the Line of Actual Control in the India-China Border (New Delhi, December 1996).

Since its inception in 1989, the JWG has played an instrumental role in developing and implementing CBMs in the military field. In turn, many of them have been codified in the 1993 and 1996 agreements. Despite fluctuations in the relationship, progress has been made in several important areas. One is the setting up of the Military and Diplomatic Experts Group within the JWG. Its task is to advise the JWG on matters ranging from the alignment of the LAC to the redeployment and reduction of forces. To date this group has

3. Rosemary Foot, "Chinese-Indian Relations and the Process of Building Confidence: Implications for the Asia-Pacific," *Pacific Review* 9:1 (1996), pp. 58–76; Ye Zhengjia, "Sino-Indian Friendship and Cooperation Contribute to Peace and Development in Asia and the World at Large," *Studia Diplomatica* 44:4–5 (1996), pp. 111–20; and Sony Devabhaktuni, Matthew C. J. Rudolph, and Amit Sevak, "Key Developments in the Sino-Indian CBM Process," in *A Handbook of Confidence-Building Measures for Regional Security*, eds. Michael Krepon et al., 3rd ed. (Washington, D.C.: Stimson Center, March 1998), pp. 201–04.

TABLE 1 *Sino-Indian, High-Level Exchange Visits, 1979–2001*

| <i>Date</i> | <i>Action</i> |
|----------------|--|
| February 1979 | Indian Foreign Minister Atal Bihari Vajpayee visited China. |
| May 1980 | Chinese Premier Hua Guofeng and Indian Prime Minister Indira Gandhi met in Belgrade at Yugoslavian President Tito's funeral. |
| June 1981 | Chinese Foreign Minister Huang Hua visited India. |
| November 1984 | Chinese Vice-Premier Yao Yilin attended Mrs. Gandhi's funeral. |
| September 1985 | Chinese Premier Zhao Ziyang and Indian Prime Minister Rajiv Gandhi met at the U.N. |
| April 1987 | Indian Defense Minister K. C. Pant made a stopover in Beijing on his way back from Pyongyang. |
| June 1987 | Indian Foreign Minister N. D. Tiwari visited China. |
| December 1988 | Indian Prime Minister Rajiv Gandhi paid a historic visit to China. |
| October 1989 | Chinese Vice-Premier Wu Xueqian visited India. |
| March 1990 | Chinese Foreign Minister Qian Qichen visited India. |
| May 1990 | Indian Deputy Prime Minister Devi Lal visited China. |
| December 1991 | Chinese Premier Li Peng visited India. |
| May 1992 | Indian President Ramaswamy Venkataraman visited China. |
| July 1992 | Indian Defense Minister Sharad Pawar visited China. |
| September 1993 | Indian Prime Minister Narasimha Rao visited China. |
| November 1993 | Chinese People's Political Consultative Conference Chairman Li Ruihuan visited India. |
| December 1993 | PLA Deputy Chief of the General Staff Lt. Gen. Xu Huizi visited India. |
| June 1994 | Chinese Minister of Foreign Trade and Economic Cooperation Madam Wu Yi visited India. |
| July 1994 | Chinese Foreign Minister Qian Qichen visited India; Indian Chief of Army Staff Gen. B. C. Joshi visited China. |
| September 1994 | Chinese Defense Minister Gen. Chi Haotian visited India. |
| October 1994 | Indian Vice-President K. R. Narayanan visited China. |
| November 1995 | Chinese National People's Congress Chairman Qiao Shi visited India. |
| December 1996 | Chinese President Jiang Zemin visited India. |
| December 1997 | Chinese Communist Party Politburo Standing Committee member Wei Jianxing visited India. |
| April 1998 | PLA Chief of the General Staff Gen. Fu Quanyou visited India. |
| May–June 2000 | Indian President K. R. Narayanan visited China. |
| June 1999 | Indian Foreign Minister Jaswant Singh visited China. |
| July 2000 | Chinese Foreign Minister Tang Jiaxuan visited India. |
| January 2001 | Chinese National People's Congress Standing Committee Chairman Li Peng visited India. |

TABLE 2 *Sino-Indian Joint Working Group Meetings, 1989–2000*

| <i>JWG Meeting</i> | <i>Timeframe</i> | <i>Major Developments</i> |
|--------------------|-----------------------|---|
| 1st, Beijing | July 1–4, 1989 | Agreement that military experts would work out measures to ensure “peace and tranquility” along the LAC. |
| 2nd, New Delhi | August–September 1990 | Agreement that regular meetings in the border areas between military personnel, especially border guards, should be established to expand contacts. |
| 3rd, Beijing | May 13, 1991 | No substantive progress, but the two sides further enhanced their understanding of each other’s positions and agreed to continue the process. |
| 4th, New Delhi | February 20–21, 1992 | Twice yearly (June and October) flag meetings between military personnel formally established at the Bum La Pass in the eastern sector and the Spanggur Gap in the western one. In addition, proposals made that direct telephone links between local commanders should be set up and views be exchanged on CBMs, including prior notification of military exercises. |
| 5th, Beijing | October 27–29, 1992 | Frank exchange of views on the border issue and statements of each other’s positions. |
| 6th, New Delhi | June 25–30, 1993 | Decision on a set of additional measures that would ensure greater transparency in the location of forward posts and military activities along the LAC, including prevention of air intrusion and redeployment of forces. |
| 7th, Beijing | July 1994 | Failed attempt to resolve persistent differences over ways to reduce close encounters in some areas along the LAC. |
| 8th, New Delhi | August 1995 | Agreement to pull back troops from four forward posts some 50–100 yards from each other. |
| 9th, Beijing | October 1996 | Agreement to increase reciprocal visits by military personnel with the rank of major general and to establish two additional meeting places along the eastern section of the Sino-Indian border for military personnel manning the disputed line of control. |
| 10th, New Delhi | August 4–5, 1997 | Clarification of LAC discussed. The two sides focused on implementing the 1993 and 1996 CBM agreements and pledged to continue dialogue on a mutually acceptable border. |
| 11th, Beijing | April 26–27, 1999 | Meeting originally scheduled for November 1998 cancelled by China because of Indian nuclear testing and the deterioration of bilateral relations. Meeting reconvened in 1999, with both sides pledging to restore bilateral relations and move the confidence-building process forward. |
| 12th, New Delhi | April 28–29, 2000 | Agreement to adopt a “forward looking” approach and set up an expert group to solve their border dispute. Discussion also included clarification of the LAC and CBMs between the militaries. |

held seven rounds of meetings. In 1997, the two countries also agreed to hold annual foreign ministerial consultations. The second significant area of developments has been the initiation of regular flag meetings between local commanders where the two sides have agreed that military personnel would meet twice a year at Bum La, Nathu La, and Dichu in the eastern sector, Lipulekh near Pithoragarh in the middle sector, and Spanggur Gap near Chushul in the western area. A border post at Nathu La serves as a meeting place for the biannual meetings between Chinese and Indian border personnel. The local commanders can also hold unscheduled meetings by raising a flag. In addition, direct telephone links between local commanders have been proposed to facilitate better communication. In November 1999, a telephone link was established between the Chinese and Indian sides at Nathu La in the Sikkim sector. Finally, through the JWG process, concerns can be raised, and disputes can be clarified and even resolved.

Additional measures that could ensure greater transparency in the location of forward posts and military activities along the LAC have also been adopted. These include prior notification of military exercises, prevention of air intrusion, and the agreement to pull back troops from four posts within 50–100 yards of each other in the Sumdorong Chu Valley (Wangdung area). In short, the JWG meetings have become the contact points for candid discussions, as well as for developing specific CBMs to enhance the overall peace and tranquility along the LAC.

The bilateral relationship, however, has not always been smooth sailing. Several incidents occurred during this period, setting back the normalization process and casting serious shadows over the future course of their bilateral relationship. The first was India's upgrading of the North East Frontier Agency (NEFA) into the state of Arunachal Pradesh in December 1986. This prompted a strong protest from Beijing, which charged that India "seriously violated" China's territorial integrity and sovereignty.⁴ The second damaging incident was the 1986–87 border standoff in Sumdorong Chu in the eastern sector mentioned earlier, where both sides deployed large numbers of troops. This troop deployment almost escalated into a wider conflict. More recently, China's nuclear and missile exports and assistance to Pakistan have been another bone of contention between New Delhi and Beijing. Similarly, India is concerned about Beijing's potential incursion into its sphere of influence, particularly in reference to the latter's arms sales to Nepal and Myanmar.

4. Mohan Ram, "Bluster on the Border," *Far Eastern Economic Review (FEER)*, January 1, 1987, pp. 22–23; and Xuecheng Liu, *The Sino-Indian Border Dispute and Sino-Indian Relations* (Lanham, Md.: University Press of America, 1994), p. 142.

India's nuclear tests in May 1998 caused another major setback in bilateral relations. China reacted strongly and canceled the scheduled November JWG meeting in Beijing. The Chinese also responded negatively to the Indian defense minister's remarks about the China threat and the letter that Prime Minister Vajpayee sent to U.S. President Clinton regarding the problem. While the events surrounding the May tests contributed to the animosity, the roots of suspicion uncovered deeper regional concerns. They include the issue of Tibet, the India-China-Pakistan triangle, border disputes, and domestic politics in each country. Indeed, even with the two CBM agreements, India and China continue to be suspicious of each other's military activities in areas along the LAC.⁵ It was not until January 1999 that the bilateral relationship began to return to normal. There have been exchange visits and dialogues between the two countries at the Track II level involving academics, analysts, and such figures as Cheng Ruisheng, the former Chinese ambassador to India, who led a delegation to the latter early that year. Indian and Chinese officials held bilateral consultations at the director-general level in February and the 11th round of the JWG meeting was held from April 26–27 in Beijing. These talks were followed by Indian Foreign Minister Jaswant Singh's visit to Beijing on June 14–16. During the visit, both sides agreed to hold talks on demarcating the LAC and began the process of security dialogue between the two countries, which took place in Beijing on March 6–7, 2000. In May, Indian President K. R. Narayanan also paid a visit to China. The Chinese Foreign Minister Tang Jiaxuan visited India in July and Li Peng, chairman of the Chinese National People's Congress Standing Committee made a nine-day visit to India in January 2001. Despite these positive moves, long-term peace and stability in bilateral relations require significant changes in Beijing and New Delhi's threat perceptions, avoidance of open rivalry over regional issues, better management of their respective relationships with Pakistan, and the eventual resolution of territorial disputes.⁶

Regional Context of the CBMS: Views from Beijing and New Delhi

European and Sino-Indian CBM Models Compared

The motivation for CBMs, as they evolved in the European context during the cold war years, derived from a shared concern over unintended escalation

5. "Indian Army Worried at Increased Chinese Ladakh Activity," *Asian Age*, September 18, 1999; and "China Irked by Indian Plan to Raise New Army Unit in Leh," *ibid.*, September 23, 1999.

6. See Damon Bristow, "Mutual Mistrust Still Hampering Sino-Indian Rapprochement," *Jane's Intelligence Review* (August 1997), pp. 368–71; and Mark W. Frazier, "China-India Relations since Pokhran II: Assessing Sources of Conflict and Cooperation," *AccessAsia Review* 3:2 (July 2000), pp. 5–36.

that could result from misperceptions in a tense security environment marked by high concentration of military forces (including deployment of nuclear weapons) by both NATO and the Warsaw Pact. One of the key objectives of the first-generation CBMs was to reduce mistrust, misunderstanding, and miscalculation regarding military activities and intentions by making available relevant information to concerned parties.⁷ Conventional CBMs, as developed in the European context, require greater political capital and entail much more stringent verification and implementation provisions. By extension, CBMs were intended to improve mutual trust and gradually pave the way for arms control and disarmament.⁸ This was followed by the second-generation CBMs, which have become broader in scope and contain such provisions as mandatory on-site inspections (OSIs).⁹ Hence, confidence building is now defined by one analyst as “a distinctive type of security management activity entailing the comprehensive process of exploring, negotiating, and then implementing information, interaction, and constraint measures according to predominantly cooperative practices and principles.”¹⁰

China and India both have their own unique perspectives on CBMs, which not only reflect their historical, cultural, and strategic thinking but are also affected by their respective regional security environments. As these perspectives were developed outside the context of East-West confrontation, they also provide an alternative to the conventional, predominantly Eurocentric CBMs that developed during the cold war setting. For instance, the European CBM model tends to be legalistic and narrower in its focus, with a predominant emphasis on military issues. In contrast, the Sino-Indian CBM model is more informal and broader in scope, covering political and economic, as well as military, issues. Therefore, this perspective provides not only an alternative orientation to the subject of CBMs, but also presents a competing model for the post-cold war world.

There is a remarkable convergence between the attitudes of both India and China toward CBMs. Three key elements stand out that have important im-

7. Cathleen S. Fisher, “The Preconditions of Confidence-Building: Lessons from the European Experience,” in *A Handbook of Confidence-Building Measures*, pp. 261–75.

8. Rakesh Sood, “Confidence-building Measures: Regional Applications of Agreed Global Principles,” in *Disarmament in the Last Half Century and Its Future Prospects*, Disarmament Topical Papers, no. 21 (New York: U.N. Center for Disarmament Affairs, 1995), pp. 133–39; and Antonia Handler Chayes and Abram Chayes, “Regime Architecture: Elements and Principles,” in *Global Engagement: Cooperation and Security in the 21st Century*, ed. Janne E. Nolan (Washington, D.C.: Brookings Institution, 1994), p. 82.

9. Marie-France Desjardins, *Rethinking Confidence-Building Measures*, Adelphi Paper, no. 307 (London: Oxford University Press/IISS, 1996), p. 16.

10. James Macintosh, *Confidence-Building in the Arms Control Process: A Transformation View*, Arms Control and Disarmament Studies, no. 2 (Ottawa: Department of Foreign Affairs and International Trade, 1996), p. 1.

plications for implementation and verification. One is that political environments determine both the scope of CBMs and the likelihood of their effective implementation. In the Sino-Indian case, it is clear that political commitments and declarations of good intentions at the highest level have been instrumental in concluding the two CBM agreements.¹¹ When bilateral relations sour, as occurred in the aftermath of the Indian nuclear tests, the CBM process itself was affected negatively, as were the prospect and progress of implementing existing CBM provisions. A second element that both sides prefer is a gradual, step-by-step approach to developing CBMs rather than designing comprehensive ones that may turn out to be impractical. This may explain why the two CBM agreements contain only a few verifiable provisions. Finally, the usage of the concepts of “asymmetric obligations” (India) and “relative transparency” (China) indicate that neither country is willing to embrace more constraining and deeper measures.

This understanding of Chinese and Indian perspectives provides some insights into the limited nature of the two bilateral CBM agreements and anticipates the potential role of cooperative monitoring in their implementation. It also enables us to understand what drives the CBM process and what could be the political and ideological hurdles in that process. Finally, it helps to put into context the broader international, regional, bilateral, and domestic considerations behind the post-cold war security concerns of the two countries.

The 1993 and 1996 Sino-Indian CBM agreements are often regarded as crowning achievements in the long process of normalizing bilateral relations between the two countries. The key features of the two agreements, as well as the JWG process, can be divided into declarative principles, information-exchange measures, and constraining CBMs, as listed in Table 3.

*Assessment of Sino-Indian CBM Agreements,
1993 and 1996*

One general observation can be made of the two agreements: they are limited in scope and application, in large measures declarative, and contain minimum constraining provisions. Implementation and verification receive scant mention. However, one must recognize that given the early stage of implementation and the scarcity of information pertaining to the force reduction, any conclusion will tend to be highly tentative and predictions of likely future developments speculative. These two documents function more as conflict

11. For a discussion of how and to what extent declaratory statements of good intentions by national leaders can contribute to confidence building, see Michael Krepon, Jenny S. Drezin, and Michael Newbill, eds., *Declaratory Diplomacy: Rhetorical Initiatives and Confidence Building*, report, no. 27 (Washington, D.C.: Stimson Center, April 1999).

TABLE 3 *Principal Features of the Sino-Indian, Confidence-Building Measures*

(1) Declarative Principles

- a. Neither side shall use or threaten to use force against the other.
- b. Both sides shall strictly respect and observe the LAC.
- c. Both sides shall seek a fair, reasonable, and mutually acceptable settlement of the boundary question.
- d. Each side will keep its military forces in the border areas along the LAC to a minimum level.

(2) Information-Exchange Measures

- a. Setting up diplomatic-military experts group for regular meetings on implementation issues, including LAC delimitation.
- b. Establishing hot lines and increasing meetings between border troop commanders and other authorities at designated points.
- c. Exchanging information on natural disasters and diseases along the LAC.

(3) Constraining Measures

- a. Limiting the size of military forces within agreed zones along the LAC, including setting ceilings on the number of main battle tanks and infantry combat vehicles with main guns of 75 mm or larger, mortars with a caliber of over 120 mm, surface-to-air missiles and surface-to-surface missiles each side can have [exact limits remain to be negotiated].
- b. Avoiding large-scale military exercises involving more than one division (15,000 troops) and providing prior notification to the other side on exercises involving more than one brigade (5,000 troops).
- c. Prohibiting combat aircraft flights within 10 km of the LAC without prior notification; however, unarmed transport aircraft and helicopters are permitted to fly up to the LAC.
- d. Prohibiting firing, blasting, and hunting within 2 km of the LAC.
- e. Self-restraint in situations of face-to-face confrontation.

SOURCE: Based on "Agreement Between the Governments of the People's Republic of China and the Republic of India on the Maintenance of Peace and Tranquility in the Border Areas Along the Line of Actual Control," Beijing, September 7, 1993; and "Agreement Between the Governments of the Republic of India and the People's Republic of China on Confidence-Building Measures in the Military Field Along the Line of Actual Control in the India-China Border Areas," New Delhi, December 1996.

avoidance measures than CBMs.¹² These limitations reflect the two countries' attitudes toward confidence building, military transparency, verification, and the specific circumstances under which negotiation took place. Indeed, the impetus for negotiating CBMs in the Sino-Indian context has been predominantly political and only secondarily military.

12. On this point, see Michael Krepon, "Conflict Avoidance, Confidence-Building, and Peacemaking," in *A Handbook of Confidence-Building Measures*, pp. 1–13.

The post-1962 Indo-China border areas have remained by and large peaceful without any formal CBMs in place. Since India and China have no immediate concerns over the other side's military intentions, confidence building in this context serves to enhance understanding and trust, paving the way toward eventual resolution of territorial disputes between the two countries.¹³ This explains why the two agreements are long in declaratory statements and short in verifiable provisions. This is not to belittle the importance of political goodwill behind declaratory CBMs but only to suggest that although both Beijing and New Delhi realize that verifying CBM agreements is essential for securing peace and stability, neither is willing to tread down that path at present.

The two agreements remain deficient in the key areas of specific force reduction, implementation, and verification measures for several reasons. One is the reality on the ground. On the Sino-Indian LAC, nature imposes harsh conditions that make massive, deliberate military concentration difficult to undertake. At the same time, force reduction and redeployment have already taken place over the years, making it unnecessary for China and India to go beyond principles and declarations. For instance, there have been reports that India removed 35,000 troops from the eastern sector in the early 1990s.¹⁴ Another equally credible explanation is that New Delhi and Beijing could not agree on the specific terms of CBMs, in particular those pertaining to force structure, level, and locations. India, for example, has always insisted that any force withdrawal and/or reduction along the LAC should be based on the principle of equitable rather than equal measures.¹⁵ Because of the disagreement (or lack of agreement), the terms of implementation and verification are equally difficult to negotiate. However, this does not mean that no incentive exists for New Delhi and Beijing to move forward. Perhaps the Sumdorong Chu crisis of 1986–87 reinforces the importance of negotiating and implementing verifiable provisions in bilateral CBM agreements. Both Beijing and New Delhi realize that without elaborate CBMs in place, a similar crisis could recur in the future.

Actual implementation of these provisions has yet to be worked out and may highlight differences that were not anticipated at the operational level.

13. However, this may have changed in the wake of Indian nuclear testing and its continued missile developments as well as China's continued supply of sensitive nuclear and missile technology to Pakistan. See Ming Zhang, *China's Changing Nuclear Posture: Reactions to the South Asian Nuclear Tests* (Washington, D.C.: Carnegie Endowment for International Peace, May 1999); and M. V. Rappai, "India-China Relations and the Nuclear Realpolitik," *Strategic Analysis* 23:1 (April 1999), pp. 15–26.

14. Manoj Joshi, "Shy Hands Across the Himalayas," *Asia-Pacific Defense Reporter* (April–May 1993), p. 15; and Surjit Mansingh, "India-China Relations in the Post-Cold War Era," *Asian Survey* 34:3 (March 1994), p. 291.

15. Shekhar Gupta, "Vital Breakthrough," *India Today*, September 30, 1993, p. 25.

For instance, while the 1996 agreement clearly defines the troop levels allowed to participate in military exercises (which are relatively more difficult to monitor from a technical standpoint), it does not provide the precise numbers for equipment allowed (which is technically easier to monitor) in exercises or along the border. Thus, the path to verifying the Sino-Indian CBM provisions is likely to be a complex one.

In addition, the process of implementation and verification of the CBMs could well be politically driven, rather than technology or treaty determined.¹⁶ The provisions in the two agreements that call for monitoring and verification are unlikely to be fleshed out and implemented unless the political will to do so moves forward. In fact, even with the presence of clear verification provisions, technological means, and monitoring regimes, these provisions are unlikely to be implemented unless there is strong political will to do so. Hence, the verification and monitoring models suggested in the following section will work only if the political climate is conducive for their implementation.

However, these limitations can also provide opportunities for cooperative monitoring. The fact that the verifiable provisions contained in the two CBM agreements are few and far from stringent could make it relatively easier for Beijing and New Delhi to accept the ideas of jointly collecting, analyzing, and sharing data related to implementation activities. Given the limited scope of these provisions, neither side would feel its security is compromised since verification at this stage is unlikely to be intrusive. At the same time, successful design and implementation of workable cooperative monitoring models can build trust, raise the comfort level of using technologies in implementing arms control provisions, and embolden the two sides to adopt additional CBMs that are verifiable, more stringent, and in the long run conducive to consolidating better bilateral relations between India and China. Indeed, even with relatively limited and far less constraining provisions, implementation of the two agreements could still present challenges to Beijing and New Delhi. Verification in this context proves extremely important given long-standing suspicion of the two countries toward each other. At the same time, one must also recognize that without verification, truthful implementation is likely to remain in doubt and each side could view the other as not in full compliance with the agreements. It is here that the value of cooperative monitoring is most manifest. It serves to remove the stigma that insistence on verification betrays a level of distrust by treating this element of arms control as a process of engineering cooperation between opponents.

Cooperative monitoring proceeds from an identification of verifiable provisions of arms control and CBM agreements in question, to selection of

16. Former senior Indian diplomat, author interview, Albuquerque, N.M., March 1999.

available and appropriate technology-based tools, to specific plans that are politically acceptable to the parties and technically sound and practicable. Useful lessons can be drawn from experiences elsewhere. The case of the Sinai Field Mission suggests that while political will remains critical in conflict resolution, its absence should not prevent small, meaningful steps to be taken. And cooperative monitoring can prove to be an important initial step. Indeed, many of the issues confronting treaty compliance and verification, such as troop movements and accounting of weapons systems and materials, could be dealt with through the use of monitoring technologies including ground sensors, satellite imagery, aerial overflights through open skies arrangements, and on-site inspections. An important lesson is that cooperative monitoring contributes to moving away from the “chain of escalation” in that using technical measures to enhance assurance can mitigate the need for prompt response.¹⁷

Three Models of Cooperative Monitoring

The 1993 and 1996 agreements provide a number of verifiable provisions. These include regular flag meetings, maintenance and expansion of telecommunication links, exchange of information on natural disasters and diseases, notification and limitation of military exercises, reduction of certain types of equipment (although no specific figures are given), and prevention of aerial intrusion of military aircraft within 10 km of the LAC. Verification of these provisions can be facilitated through bilateral cooperative monitoring measures and/or unilateral self-compliance. Even where specific numbers have not been decided, cooperative monitoring would still be helpful for observing the kind of equipment that both sides have fielded and for ensuring that neither side has introduced weapons that are not allowed under the agreements. With regard to military exercises, specific technical means could be used to make sure that the number of troops participating is within the provisions of the agreements. However, before examining the various provisions, it would be useful to study the different areas along the Sino-Indian border/LAC to determine which sectors are best suited for cooperative monitoring.

Table 4 shows the relationship between the categories of CBMs, the technology requirements for their implementation, and their value for cooperative monitoring. The table shows that declaratory CBMs require the least amount of technology input and cooperative monitoring to be successfully enforced. In contrast, constraining CBMs require the greatest technological input and need a high level of cooperative monitoring to be successfully implemented.

17. Vannoni, *Sensors in the Sinai*, pp. 30–32.

TABLE 4 *Technology and Cooperative Monitoring Requirements for Different Types of Confidence Building Measures*

| <i>Type of CBMs</i> | <i>Technology Requirements</i> | <i>Cooperative Monitoring</i> |
|----------------------|--------------------------------|-------------------------------|
| Declaratory | Not essential | Not crucial |
| Information exchange | Required | Useful though not crucial |
| Constraining | Essential | Crucial |

*Areas of Monitoring: Strategic Passes and
Locations with Histories of Conflict*

Given the length of the entire LAC (about 2,000 km), a full-scope implementation of all the verifiable provisions of the two agreements is neither practical nor affordable. Moreover, the geographical characteristics (mountainous, rugged terrain, freezing climate, and high altitude) of the border region have restricted the likely areas of military maneuvers by India and China to a few predictable spots. Given these terrain features, any military buildup is likely to be a slow and very visible process. Therefore, this study focuses on the potential of monitoring major roads, passes, and possible assault routes along the disputed border for three reasons. First, these areas (such as passes) have an obvious strategic value. For instance, the Spanggur Gap area near Chushul in the western sector of the Sino-Indian LAC was a key strategic site during the 1962 war and remains so today.

Second, some of these, such as the Spanggur Gap and Bum La in the eastern sector, were the sites of past military confrontations (either during the 1962 war or the 1986–87 conflict) and could be potential flash points in the future. Third, some of these sites have also been specifically identified by India and China as locations to conduct flag meetings and therefore are acceptable to both sides as areas where some cooperation is allowed. Based on these factors, this study focuses on the Spanggur Gap in the western sector to develop a cooperative monitoring model.

Apart from the political factors mentioned above, this area is also useful from a geographical and technological point of view. Nestled between the Spanggur Lake in the south and the 14,229-foot-high Chushul Mountain in the north, the two-km-wide gap is a natural pass. With little or no civilian traffic, it is a near-perfect setting to establish a model cooperative monitoring regime using ground sensors. It is therefore conducive for cooperative monitoring because major military movement is possible only through narrow passes or by air. Sensors could be placed on passes, roads, and/or garrison gates and could be combined with cameras for video assessments. They can provide prompt electronic notification in case a few vehicles and some per-

sonnel move through the passes, while satellite imaging and aerial surveillance can detect large military activities. However, the environment may also place severe constraints on monitoring. For instance, clouds may prevent clear satellite and aerial imaging. Heavy snow may muffle sound from vehicles while landslides or avalanches may bury or destroy a set of sensors. The areas sustain long periods of extremely low temperatures and this may freeze components, reduce battery life, and compromise the effective functioning of sensors. Moreover, in windy conditions, which are not uncommon, communication antennas may be blown over, losing links between monitoring sites and centers for data collecting and analyzing.

The harsh conditions would require the selection and testing of specialized or specific sensor systems. This could be done through cooperative efforts by border units where engineers from both sides could perform the tests in similar environments away from the LAC (if conducting tests close to the LAC is considered too sensitive). Once the geographical locations and the technologies have been selected, monitoring can be conducted in several manners, as follows:

- *Joint operations* by sharing of equipment and collecting, analyzing, and disseminating data at a joint monitoring center;
- *Sharing of equipment* but collecting, analyzing, and disseminating data separately or unilaterally; and
- *Collecting data unilaterally* but comparing it jointly.

Based on the three variables (provisions, locations, and monitoring methods) identified above, Table 5 illustrates the degree of acceptance and likelihood of success of a particular cooperative monitoring tool in a particular area and for a particular provision. The appropriate technology has also been identified.

On the basis of the high possibility of acceptance, at least three models of cooperative monitoring can be envisioned. These are described in detail below.

A Short-Term Model

This model would build on the existing practice of flag meetings. Currently, the flag meetings take place twice a year and require little or no technology or cooperative monitoring. However, it is feasible that under the provision of the agreements, a telephone hotline may be installed between local commanders to increase the level of communication and perhaps even the frequency of the meetings. The installation of the hotline itself would be a CBM, and its regular maintenance, particularly in the harsh climate of the Spanggur Gap and Bum La areas, would involve some cooperation. In addition, it is also possible that the flag meetings may be expanded to include

TABLE 5 *Areas of Implementation, Monitoring Methods, and the Likelihood of Acceptance of Different Types of Cooperative Monitoring Agreements*

| <i>Agreements and JWG Provisions</i> | <i>Area of Implementation</i> | <i>Methods of Monitoring</i> | <i>Possibility of Acceptance</i> |
|--|--|---|---|
| Flag meetings | Spanggur Gap and Bum La | Ground sensors | High |
| Weather/natural disasters | Major passes and pilgrimage routes | Weather data collecting equipment | High |
| Diseases | Major passes and pilgrimage routes | On-site disease monitoring | Medium to low |
| Disengagement from four forward posts | Sumdorong Chu Valley | Baseline on-site inspections (OSIs); ground sensors, and aerial monitoring | Medium to high but may be technically difficult to monitor |
| Military exercises limitation and prior notification | Strategic passes fought over in 1962 and 1986–87; Sikkim | Satellite imaging, Open Skies, remote sensing, ground sensors, hot lines, and garrison monitoring | Medium to high potential for greater cooperative monitoring |
| Limitation on armament and equipment | Major garrisons behind the LAC | Routine OSIs, garrison monitoring, ground sensors, and aerial monitoring | Low potential for cooperative monitoring at the moment |

group interactions. For instance, at the company level, these activities could include friendly social and cultural exchanges and interactions among the troops posted in that particular area.¹⁸ This increased level of interaction, particularly if it were formalized, would also require additional communication and cooperation on both sides. Thus, the first significant technology input would have to be the means to ensure regular and reliable communications.

Another area of cooperation and cooperative monitoring that is likely to find a high level of acceptance on both sides is the collection and dissemination of weather data as well as assistance during natural disasters. Clearly, both sides already collect weather and other related data, but currently this is done unilaterally. It is conceivable that the two sides could agree either to share weather information or gather it jointly. Thus, as part of the improved communications mentioned earlier, it is possible that initially the weather

18. Such activities are already taking place at an impromptu and ad hoc level. For instance, in February 1999 the Indian army chief, General V. P. Malik, spontaneously crossed the LAC at Nathu La and greeted the Chinese soldiers with sweets. See *Times of India*, February 14, 1999.

data collected unilaterally could be exchanged electronically as a CBM. Subsequently, both sides could also establish joint weather data collection centers. Here the Spanggur Gap area could be used as a test bed to collect and share weather data.

In addition, the communication link for weather could form the basis for cross-border information exchanges on disaster relief, smuggling, disease outbreaks, and other items of local interest. Although most of these are inapplicable to the Spanggur Gap area and are more useful along trade routes and routes used by pilgrims, the Spanggur Gap area could become a model site for experimental disease and natural disaster reporting, which could be replicated to other areas if the experiment is successful. This may be particularly pertinent given that a 1998 landslide killed more than 200 pilgrims en route to Kailash Mansarovar. India has already suggested opening an alternate route for this annual pilgrimage into Tibet.¹⁹ Here the two sides could explore some measures of cooperative weather data gathering and monitoring.

A Medium-Term Model

The installation of ground sensors—the optimal installation of which could be determined in advance using simulation software—on both sides of the LAC is important to detect unannounced troop movements, clarify misunderstandings, and increase the level of confidence in the peaceful intentions of the other side. In the absence of such a mechanism, each side relies on unilateral intelligence gathering, and concerns over the other's intentions can arise. For instance, increased Chinese military activities close to the LAC reportedly set the Indian army on high alert.²⁰ This has already led to increased frequency of flag meetings between local commanders, thus revealing the benefits of even basic CBMs at the ground level.

A deployed cooperative monitoring system can serve several purposes. At the simplest level, it can announce the arrival of the other side's delegation for flag meetings (convoy consisting mostly of light vehicles such as jeeps). More substantially, it can monitor inadvertent intrusions of patrol groups or detect intentional troop movements on a larger scale, for instance, ones that contain armed personnel carriers, infantry combat vehicles, and other heavy equipment that are limited by the two agreements. A combination of seismic, magnetic, and linear (weigh cables, infrared, microwave) sensors, placed at strategic locations along the Spanggur Gap, would complement each other in

19. "Sino-Indian Talks Positive: MEA," *Hindustan Times*, March 1, 1999.

20. "India Goes on High Alert," *Stratfor Global Intelligence Report*, November 9, 1999, on the World Wide Web at <<http://www.stratfor.com/SERVICES/GIU/110999.ASP>> [accessed November 12, 1999]; and "Delhi Protests PRC Incursion during Kargil War," *Hindustan Times* (online version), September 8, 1999, on the World Wide Web at <<http://www.hindustantimes.com/>> [accessed December 2, 1999].

identifying and detecting movements of equipment and personnel. As vehicles move faster and therefore require longer warning time, weight cables, seismic, and magnetic sensors should be placed at the far ends of passes and linked to cameras. A center for receiving and analyzing data could be set up at a location mutually agreed to and staffed with personnel from both sides. Communication links would also be established between the center, the frontline command posts of both sides, and the forward patrol posts to facilitate clarification of ambiguous situations. The standard would be that the less tension between the two countries, the fewer sensors would be required. Analysis could be done jointly. Alternatively, there would have to be more sensors, with collecting and analyzing done unilaterally.

As mentioned above, one of the more significant breakthroughs in Sino-Indian relations was the disengagement of Indian and Chinese troops from four border posts in the Sumdorong Chu area in 1995, where they had been in an eyeball-to-eyeball confrontation ever since the major showdown of 1987. Eventually, at the eighth JWG meeting in August 1995, the two sides agreed to pull back troops from four posts within 50–100 yards from each other in the Sumdorong Chu Valley (Wangdung area). Although the disengagement was regarded as a sign of normalization by both sides, this is an opportunity that calls for cooperative monitoring arrangements to ensure that the four posts do not become the source of a future dispute.

Such a situation calls for a monitoring regime that could increase confidence on both sides by providing reassuring information that neither would be trying to reoccupy the posts. Although the disengagement was negotiated by the JWG, so far there is no consensus to monitor the posts to ensure that they are not reoccupied. However, were such a provision to be reached, the disengagement could be monitored by a combination of ground sensors, aerial surveillance, and on-site inspections. Here the experience gained in the experimentation with ground sensors both through simulation software and on the ground at Spanggur Gap would be useful.

Given the geographical characteristics of the LAC, particularly in the Sumdorong Chu area, an “open skies” monitoring regime would be ideal. The agreements actually allow for this type of aerial survey. For instance, Article V of the 1996 Agreement specifies that “survey aircraft shall be permitted to fly up to the line of actual control.” An open skies monitoring regime could allow regular aerial surveillance, flexible routing, and short-notice missions. This would be less intrusive than on-site inspections and offers high-resolution imaging at low altitude and at a manageable cost. The only issue then is how comfortable both India and China would be in allowing such a regime, considering that neither side has ever carried out such a task jointly. This presents an excellent opportunity for cooperative moni-

toring at a reduced cost. The European experience can serve as a useful precedent in this regard.

Another method of aerial surveillance is through satellite imaging. Both analysts and policymakers have noted the increasing importance and availability of satellite images and their impact on national, regional, and international security.²¹ Recent studies, including one on detecting massed troops along the Saudi-Iraqi border during the 1991 Gulf War, are helpful in this context.²² Overall, satellite images can be useful for cooperative monitoring purposes as they can be quite adequate in detecting large signatures such as masses of vehicles, garrison embankments, staging areas, tank-training ranges, and supply roads from a high altitude and therefore with wide coverage. Equipped with radar, they can also overcome problems arising from cloud cover or other bad weather and still be able to provide high-resolution imagery. Satellites, once placed in orbit, do not require permission to enter the air space of countries in question.

From the comparison above, it would appear that in the case of monitoring the four posts in the Sumdorong Chu area, an aircraft-based monitoring system would be preferable to satellite imagery. While satellite imagery is useful to monitor troops concentrated at the brigade level in places with distinct man-made structures, it may be less effective when the number of troops involved is much smaller and the terrain features (trees, bushes, and narrow valleys) can cover up human activities. Thus, aerial monitoring, such as the open skies provision in the CFE context and the Hungary-Romania bilateral regime (using aircraft), can also provide some useful precedent for the India-China case.

Both India and China already are carrying out unilateral on-site inspections of the four posts in the Sumdorong Chu area to make sure that the other side has not reoccupied them. However, this could be extended into bilateral, cooperative OSIs. For instance, the two sides could decide on a mutually agreed level of personnel and equipment and introduce sensors at garrison gates to ensure that a baseline is both agreed to and maintained. In addition, they could also opt for joint patrols (which was done in the past), or they could decide to conduct regular flag meetings at the site of the disputed posts to ensure that neither side has violated its commitments. These regular meetings could be supplemented by challenge OSIs that would initially have to be confined to the four posts but could possibly be extended to other posts on both sides at a later date.

21. Vipin Gupta, "New Satellite Images for Sale," *International Security* 20:2 (Summer 1995), pp. 94-125.

22. Vipin Gupta and George Harris, *Detecting Massed Troops with the French SPOT Satellites: A Feasibility Study for Cooperative Monitoring* (Albuquerque, N.M.: CMC, Sandia National Laboratories, January 1999).

A Long-Term Model

In the long term, the agreements call for the reduction of troops and the limitation of military equipment allowed along the border areas. Cooperative monitoring could play an important role in ensuring adherence to these provisions. However, before this can be accomplished, there will first have to be a negotiation of the numbers of arms and armament allowed. At the moment, there are no specific numbers. Various Chinese accounts have estimated that there are 240,000 Indian troops and 40,000 Chinese assigned to the Sino-Indian border areas and along the LAC. On the other hand, some Indian sources suggest that China may maintain between 180,000 and 300,000 troops in Tibet.²³ However, given that military exercises are not allowed beyond the brigade level, it can be assumed that the equipment would also relate to that which is normally attached to brigade-level units. Hence, to begin it would be adequate to determine the equipment composition of both the Chinese and Indian forces at the brigade level and above and set the base line. This would be in conformity with the troop levels permitted under the agreements.

Although the implementation of this model is likely only if there is sufficient political will on both sides, it would be the most intrusive of the cooperative monitoring models suggested so far. It would not be confined only to the border areas but might have to be extended to the staging areas deep in India and China, where troops and equipment larger than a brigade level can be assembled. In addition to ground sensors, aerial surveillance, and the limited on-site inspections already described in the previous sections, a specific model would have to be jointly developed to monitor garrisons away from the LAC and deep within Chinese and Indian territory. Proper selection, by both sides in cooperation, would guarantee detection of forces that exit the garrison but not detect permitted movement within the garrison perimeter. The objective is to ensure that the military security of each side is preserved. The use of electronic sensors, thus organized, assures that only the agreed data are transmitted. Remote monitoring of garrison gates by the installation of checkpoint systems would provide notification of entry or exit by military vehicles, report attempted bypass of the system, and screen for anomaly in vehicle length and weight, which could be picked up by break-beam and weight cables. Replacement of human inspectors is not a cost measure but rather would make the system less intrusive. Reducing the chance of false

23. On the numerical discrepancy, see Hua Han, "Sino-Indian Relations and Nuclear Arms Control," in Eric Arnett, ed., *Nuclear Weapons and Arms Control in South Asia after the Test Ban* (Oxford: Oxford University Press for SIPRI, 1998), p. 42.; and Swaran Singh, "Sino-Indian CBMs: Problems and Prospects," *Strategic Analysis* 20:4 (July 1997), pp. 543-59.

events from civilian activities, animal life, and weather would also be an important consideration.

Realistic Constraints on Sino-Indian CBM Implementation

While China and India have made great strides in confidence building over the past two decades and the two CBM agreements do provide some verifiable provisions, obstacles remain in implementation. The three models suggest that cooperative monitoring may be possible and indeed should be undertaken. The options range from the relatively easy, information-exchange CBMs, and move gradually toward more stringent verification as the two sides build trust and gain confidence in understanding technology-based tools. In this regard, effective implementation of existing provisions require the two sides to face and overcome both political and technological challenges. The first has never been easy and has become more complicated in the aftermath of Indian nuclear tests, in addition to residual conflicts between the two countries over a range of issues, including reports of China's continued supply of sensitive technology to Pakistan. Even if the political will existed, the complexity of verification and monitoring through the application of various technical means, coupled with the geographical realities, would make cooperative monitoring at once daunting and rewarding. The U.S.-Soviet, European, and Sinai modalities have demonstrative rather than transplantive significance; namely they have taken a long time to gain experience. In the Sino-Indian context, there is much less experience about, let alone inclination toward, verification in bilateral settings.

Second, there are economic constraints that must also be taken into consideration. Technology both saves and consumes resources. Along the 2,000-km Sino-Indian LAC, there are a number of strategic passes where military operations could take place and indeed did take place in the past. It would be very costly to monitor all of them; both countries remain essentially developing countries with large populations and limited economic resources. Of necessity, cooperative monitoring should be limited in scale, and at the beginning should be for demonstrative purposes. High technology, high-budget solutions would not be appropriate here; the distances are too vast and the support technology is not highly advanced in these remote areas. An ambitious design would be out of the question at this point.

Finally, the Sino-Indian case cautions against transplanting cooperative monitoring models from elsewhere because of the technological challenges the two countries face. Neither country has had experience in designing and developing monitoring models that incorporate the use of various technology-based tools. This would require personnel training in equipment operation and maintenance. The training itself would be a valuable CBM. While the

uniqueness of potential application in the Sino-Indian case makes this a good area for technical cooperation, the cooperation itself takes time to develop. Agreeing on, designing, field-testing, and procuring a complete system could take several years.

*Relevance of the Sino-Indian Model for
India and Pakistan*

Is there a case to be made for transplanting any experience gained from Sino-Indian cooperative monitoring to the practically non-existent Indo-Pakistan case in the same sphere? On the face of it, there would be much to be gained by implementing an Asian model in the South Asian setting. However, closer scrutiny reveals numerous hurdles along the way. These have to do primarily with the nature of the Sino-Indian and the Indo-Pakistan relationship. First, China is often cited as the primary security concern by Indian decision-makers. However, in terms of India's domestic politics, it is almost irrelevant to most Indians, who consider Pakistan to be the more significant threat. This means that while any attempt to cooperate or normalize relations with Pakistan has to pass the test of strict public scrutiny, similar attempts with China could slip by unnoticed. This becomes evident when a comparison is made between the media coverage of the two Sino-Indian CBM agreements and the Indo-Pakistan Lahore process. Second, there is no denying that the Indo-Pakistan relationship and the issues confronting both Islamabad and New Delhi are far more complex than those facing India and China. The latter are far more tractable. Besides, the move to relatively bold CBMs (by Indian standards) was made possible by the ground realities and the fact that the Sino-Indian border had been more or less quiet since 1987. As Kanti Bajpai and Bonnie Coe noted in one recent study, Sino-Indian relations "are good enough for CBMs but not good enough to render CBMs irrelevant."²⁴ In contrast, since 1984 the Indo-Pakistan boundary has been a discordant border, where a quiet day is the exception. Hence, Indo-Pakistan relations are adverse enough to sometimes render even CBMs irrelevant.

Third, India and China also may have benefited from what may be called the "other region syndrome." Thus, although New Delhi insists that its conventional and nuclear capabilities are in response to China, it will not concede that China is a South Asian power in the sense that it has a legitimate role to play in the security of the region. Similarly, China too rejects that it is a South Asian power but is willing to facilitate cooperation in the region. Coupled with these peculiarities, India—which in the late 1980s and early

24. Kanti Bajpai and Bonnie L. Coe, "Confidence Building Between India and China," in *Crisis Prevention, Confidence Building and Reconciliation in South Asia*, eds. Michael Krepon and Amit Sevak (New York: St. Martin's Press, 1995), p. 209.

1990s was preoccupied by other regional issues and internal security concerns—may have used this opportunity to stabilize its relationship with China on the northern front so that it could deal with instabilities along its eastern, western, and southern fronts. Similarly, China, preoccupied with the transfer of Hong Kong, the strengthening of the U.S.-Japan military alliance, and the Taiwan issue may have acquiesced. In addition, both have been reasonably successful in insulating their normalization process from sensitive relations with third parties, such as Pakistan, Myanmar, Vietnam, and Cambodia. Fourth, India and China also benefited from the end of the cold war, which was primarily seen in the Indo-Soviet and China-Soviet context. In contrast, the end of the superpower cold war in South Asia did not lead to the conclusion of the Indo-Pakistan cold war. Fifth, the Sino-Indian process may also have gained from the conceptual shift in China's thinking toward comprehensive and cooperative security. Indeed, some Indian experts have lamented that such a shift has still not occurred in India and there is still not adequate acknowledgement among decision-makers that an adversarial relationship with China is detrimental to regional stability. Finally, economic considerations (both the declines in defense budget and the desire to rectify economic deficiencies) were an additional incentive for cooperative bilateralism. These factors are largely responsible not only for the relative success of the Sino-Indian CBM experience but also for preventing these CBMs being transplanted within the Indo-Pakistan context for some time to come.

Conclusions

Several conclusions can be drawn from this article. The first is that unlike in other regions where studies have been made of the potential and applicability for cooperative monitoring, such as the Sinai Peninsula and the Korean Demilitarized Zones (DMZs), the Sino-Indian LAC represents neither an immediate post-conflict situation where disengagement of military forces would be of uttermost importance nor is it in a situation of perennial intense military confrontation that requires constant surveillance and monitoring. Rather, it is a long-term issue of a relatively stable nature. Here, no imminent conflict is anticipated, let alone massive military clashes over the border areas. There are two CBM agreements that India and China have signed that contain, however limited, certain provisions for military reduction, disengagement, and confidence building. Implementation, if for no other reason than to testify to the sincerity of commitments to better relations on both sides, provides both the rationale and testing ground for exploring the possibility of cooperative monitoring. Given the limited nature of the verifiable provisions contained in both documents, some degree of intrusiveness and/or “transparency” should not undermine the security of either country.

A second conclusion is that cooperative monitoring both as a concept and practice presents challenges and opportunities for China and India, given their emphasis on sovereignty and military confidentiality, and their general views on transparency and verification. This study therefore has explored the potential role that cooperative monitoring can play in facilitating implementation of verifiable provisions. While well-thought out monitoring models are indispensable in ensuring that agreements are carried out properly, the more fruitful outcome of this study is to dispel misperceptions about verification in Beijing and New Delhi. This article hopes to present a strong case that sharing information does not necessarily compromise security; on the contrary, cooperative monitoring can encourage the two countries to build trust and gain confidence, leading to more detailed and verifiable arms control provisions.

Third, cooperative monitoring in the Sino-Indian case could be designed in ways that would start on a small scale and move from the relatively easy to the more complex. The three models presented in the article are based on this premise. The minimalist model for the short term could be applied relatively easily as it deals with activities (such as flag meetings, natural disaster reporting, and disease prevention) that both sides are either already undertaking or would benefit from greater cooperation. The technology used is simple and within the competence of both countries and therefore would provide an ideal environment for them to learn the basic principles of cooperative monitoring. The medium-term model deals with the more practical CBM provisions that impose constraints on both sides, as well as require a certain degree of intrusiveness and transparency. The successful design and application of this model is crucial, in that positive experience can not only facilitate effective implementation of the verifiable provisions but could also influence how Beijing and New Delhi think about CBMs, military transparency, and verification. This experience could be highly beneficial if and when India and Pakistan are ready to contemplate bilateral confidence building measures and cooperative monitoring. The long-term model remains difficult to conceive and implement at present; however, it is key to consolidating and extending CBMs between China and India.

Finally, it is also important to recognize the political, economic, and technological constraints of designing and implementing cooperative monitoring models in the Sino-Indian context. This is true both in the case of our minimalist or long-term model and in the two other ones as well. Political will remains an essential element in determining whether cooperative monitoring could happen and to what extent it could be implemented. In addition, there are significant economic and technological challenges, given the two countries' economic resources that could be committed to this area and the expertise that would need to be acquired and developed. This indicates that

cooperative monitoring models take time to develop, should be realistic and practical, and experimental at the beginning. This article's purpose is to use the models presented in this study to demonstrate both the potential positive roles that cooperative monitoring can play and identify perceivable limitations.