

RAND Research Brief

India's Emerging Nuclear Posture

After a hiatus of almost 24 years, India startled the international community by resuming nuclear testing in May 1998. Pakistan responded later the same month with nuclear tests of its own. In the aftermath of these events, many Indian strategic analysts and commentators asserted that New Delhi had been transformed into a consequential "nuclear weapons power," while the United States and others in the international community increased pressure on India to renounce its nuclear weapons program. An understanding of India's emerging nuclear posture is crucial to both the United States' global antiproliferation efforts and its interests in South Asia. According to a new book by RAND senior policy analyst Ashley J. Tellis, the truth about India's strategic environment, nuclear capabilities, and evolving doctrinal preferences, as well as the technological and organizational tasks facing New Delhi, is far more complex than is commonly acknowledged.

In *India's Emerging Nuclear Posture: Between Recessed Deterrent and Ready Arsenal*, Tellis demonstrates that, in contrast to the views held by many within and outside India, New Delhi does not currently possess or seek to build a ready nuclear arsenal. Instead, India's objective is to create what Tellis calls a "force-in-being." This term refers to a nuclear deterrent that consists of available, but dispersed, components: unassembled nuclear warheads, with their components stored separately under strict civilian control, and dedicated delivery systems kept either in storage or in readiness away from their operational areas—all of which can be brought together as rapidly as required to create a usable deterrent force during a supreme emergency. The implications of such a force for U.S. policy are many. The study concludes that an effective U.S. policy in South Asia must first acknowledge that nuclear rollback is currently not a viable option for India. However, a regional restraint regime of some sort could be sustained if the United States were committed to a deepened engagement with New Delhi and willing to live with a degree of ambiguity about India's strategic capabilities.

INDIA'S COMMITMENT TO MAINTAINING A NUCLEAR DETERRENT

The Indian government's decision to resume nuclear testing in 1998 resulted from growing pressures for a strategic deterrent in the aftermath of the Cold War. The roots of this decision extend back to the country's first nuclear test in 1974 which, despite the claims made by India's scientific establishment then and now, actually produced an insufficient yield, thus ensuring that New Delhi would someday need to resume testing if it sought to maintain an effective nuclear deterrent. This need became more pressing after a series of events in the late 1980s, including the demise of India's most important protector, the Soviet Union; the newly acquired nuclear capabilities of its traditional antagonist, Pakistan; and the new growing economic and military capabilities of its prospective competitor, China. In addition, the indefinite extension of the Non-Proliferation Treaty in 1995 and the successful conclusion of the Comprehensive Test Ban Treaty in 1997 increased—from New Delhi's perspective—the costs accruing to its traditional posture of ambiguity ("keeping its options open") with regard to nuclear weaponry. Ultimately, a new, more risk-acceptant government in India used the opportunity afforded by Pakistan's test firing of the Ghauri—a new missile acquired from North Korea—to resume nuclear testing.

According to the RAND study, the 1998 tests did not signify a dramatic change in New Delhi's strategic capabilities nor did they signal India's emergence as a potent nuclear weapons power. However, they did symbolize a critical shift in India's strategic direction by committing the country to the active development of a nuclear deterrent force of some kind, a course that is unlikely to be reversed in the future by any succeeding government.

THE FORCE-IN-BEING: BETWEEN "READY ARSENAL" AND "RECESSED DETERRENT"

The study analyzed the viability of five specific nuclear "end-states" that India has debated since its inde-

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pendence in 1947. The two options shown on the left of Figure 1 call for India's denuclearization, either through a renunciation of the nuclear option or the development of regional arms control arrangements with Pakistan and China. The middle position is India's traditional stance of keeping the nuclear option open—neither publicly endorsing nor rejecting the creation of nuclear weaponry. India's 1998 decision to pursue a nuclear posture in the form of a force-in-being is a compromise between the two options on the right end of the spectrum: a ready arsenal and a recessed deterrent. A ready arsenal would involve creating a nuclear force consisting of a sizable inventory of weapons that are maintained in military custody in peacetime and ready for immediate use. In contrast, a recessed deterrent would involve developing various elements needed for an effective deterrent without actually producing a standing nuclear force.

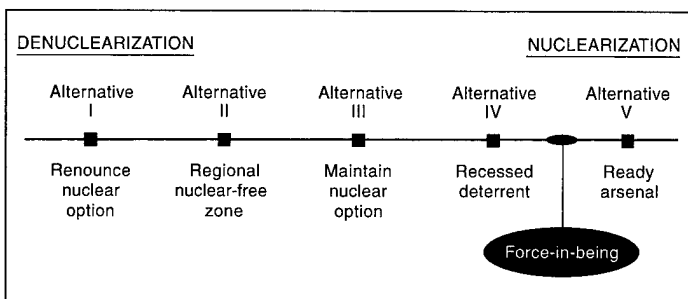


Figure 1. The Spectrum of India's Nuclear Options and Its Emerging Nuclear Posture

The force-in-being implies that India's nuclear capabilities will be strategically active, but operationally dormant, giving New Delhi the capability to execute retaliatory actions within a matter of hours to weeks. Such a capability will allow India to gain in security, status, and prestige, while simultaneously exhibiting restraint. India will acquire a nominal deterrence capability against Pakistan and China, while avoiding both the high costs of a ready arsenal and any weakening of its long tradition of strict civilian control over the military.

INDIA'S DECLARATORY AND OPERATIONAL POLICIES: NUCLEAR WEAPONS AS POLITICAL TOOLS OF DETERRENCE

The decision to adopt a force-in-being grew out of a very specific Indian doctrinal conception of the value of nuclear weapons as political tools useful mainly for deterrence rather than defense. This idea is reflected in the main components of India's strategic policy, as delineated in the RAND study.

India will adhere to a policy of "no nuclear use" against nonnuclear powers and "no first use" against nuclear adversaries. In effect, this policy implies that Indian nuclear weapons will be used only in response to a

nuclear attack on India. India's commitment to this policy is not likely to change as long as India maintains conventional superiority over Pakistan and China (in the theater) and does not acquire any extended deterrence obligations in Asia (which it presently does not have and is unlikely to acquire in the future).

In the remote contingency that nuclear use is necessary, Indian nuclear weapons would be most effective in attacks against economic and industrial assets, infrastructure nodes, and population centers (countervalue targets). India's relatively small number of low-yield weapons are not optimized for effective direct attacks on opposing nuclear forces (counterforce targets), although they could be used successfully against many military facilities, bases, and field formations in Pakistan and, potentially, against Chinese forces in the Himalayan region (countermilitary targets).

The retaliatory use of nuclear weapons—if necessary in the event of nuclear attacks on India—will be delayed, but is "assured." By definition, a "force-in-being" is not structured for prompt operations. Because Indian security managers feel confident that the possibility of nuclear weapons use in South Asia is remote, they believe that their ability to retaliate with certainty is more important than their ability to retaliate with speed. As India's strategic capabilities evolve, however, New Delhi will be able to retaliate with both certainty and speed.

THE FORCE-IN-BEING: SMALL, DISPERSED, CENTRALLY CONTROLLED

India's emerging force-in-being will not reach its desired form before the end of this decade, but is likely to be characterized by three specific traits.

Modest in size. The future nuclear stockpile could consist of about 150 warheads, depending on the rate at which plutonium and other special materials are produced during the current decade and whether a Fissile Material Control Treaty is successfully concluded during this time. If India resumes nuclear testing with greater success than that exhibited during the May 1998 series, its nuclear arsenal could eventually incorporate both boosted fission and thermonuclear weaponry, although the true reliability and maximum yield of both India's simple fission weapons and its advanced nuclear designs are uncertain.

The number and configuration of delivery systems incorporated into the force-in-being are also unclear. Over the next two decades, India's current tactical strike aircraft will be supplemented by an as-yet-undefined number of new rail-, and possibly road-mobile, solid-fueled missile systems or possibly some kind of sea-based systems over

the very long term. Improvements and modifications will also be made to supporting infrastructure; procedural; and command, control, and communication systems.

Separated in disposition and centralized in control.

The nuclear force will be routinely maintained in the form of separated components, with the responsibilities for the command, custody, integration, and use of the weapons distributed among civilians and the military, as shown in Figure 2. The command over the use of nuclear weapons will lie solely with civilians in the persons of the Prime Minister and the Cabinet, while civilians and the military will share custody of the strategic assets jointly. In the remote contingency that deterrence breakdown occurs and nuclear release orders are issued by the Prime Minister (or his designated successors), the nuclear components would be integrated into a usable weapon system, with custody to be gradually transferred to the military, which would retain sole responsibility for executing nuclear use options. Other variations of this command system, which are likely to be used in different strategic circumstances, are investigated at length in the RAND study.

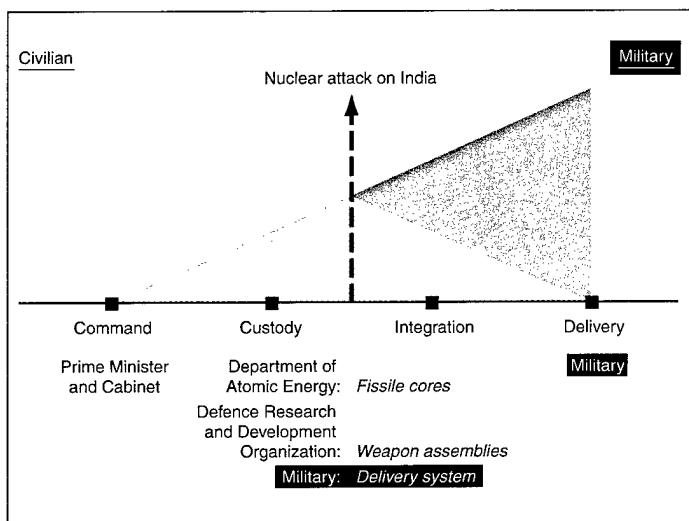


Figure 2. Distribution of Responsibilities for Command, Custody, and Use of Nuclear Weapons

REGIONAL AND GLOBAL IMPLICATIONS OF THE FORCE-IN-BEING

Although the force-in-being offers many advantages to India, it will not enable New Delhi to cope with all potential regional threats, such as a more aggressive China. Beijing's current nuclear force is both technologically and numerically superior to that of India. Extensive Chinese attacks could devastate India's ability to reconstitute its dispersed components, leaving New Delhi with only a ragged retaliatory capability of perhaps little political consequence. Indian security managers are aware of these challenges but not overwhelmed by them, believing

that India's emerging capabilities will allow them to ward off all but the worst contingencies imaginable. Moreover, Chinese nuclear weapon use against India is believed to be neither likely nor imminent. In the event of a serious prospective Chinese threat, Indian policymakers recognize that their country would not have to face such a contingency alone because an aggressive China would also become a source of concern to great powers like the United States, Japan, and Russia. Finally, India's current nuclear posture does not prevent the country from continuing to improve its strategic capabilities.

One likely result of India's continuing nuclearization will be a weak arms race with Pakistan. The concurrent development of nuclear forces typically leads to such competition, which could be all the more pronounced because of the historical rivalry between the two countries. Many in the Pakistani elite, including the military, believe that New Delhi's strategic capabilities are highly sophisticated and that India is committed to Pakistan's destruction. Such beliefs imply that Pakistan is likely to respond to continued Indian nuclearization with even more intense efforts of its own, which could in turn precipitate Indian counter-reactions. Fortunately, relatively strong economic constraints suggest that the nuclear build-up on both sides will be generally slow.

While India's nuclearization does present complications, it does not represent a failure of the nonproliferation regime. To the contrary, the nonproliferation regime has been a resounding success. It has prevented the worst nuclear threats to international, and particularly to American, security by ensuring that Iran, Iraq, Libya, and North Korea remain bound by international obligations to renounce nuclear weapons. The American architects of the nonproliferation regime recognized from the beginning that India, Pakistan, and Israel would be unlikely to renounce nuclear weapons because all these states are located in areas of high systemic insecurity and, further, because the United States could offer no adequate substitutes for the nuclear option. Other than these three countries, every state in the international system has agreed to accept specific obligations with respect to the acquisition or use of nuclear weaponry.

POLICY RECOMMENDATIONS

India's development of a force-in-being represents one stage in the country's slow maturation into a true nuclear weapon power. Coping with such an India remains an important task for U.S. foreign policy. The RAND study makes the following recommendations for U.S. policymakers:

- **Shift U.S. regional strategy from the prevention of proliferation to the prevention of war.** Although

Indian policymakers acknowledge that a ready nuclear arsenal is not desirable from the viewpoint of Indian interests, they are strongly committed to continued nuclear weaponization and missile development. Attempts by the United States to stop this process have little chance of success, but the United States can use its influence to prevent a deterrence breakdown that results in nuclear use.

- **Work to prevent the diffusion of strategic technologies.** The deliberate or inadvertent diffusion of Indian strategic technology to other potential proliferants represents a real threat to U.S. interests that needs to be addressed jointly by Washington and New Delhi.
- **Shape the character of India's nuclear deterrent by deepened political engagement with New Delhi.** The United States cannot provide India with technical assistance to develop its force-in-being, nor should it do so. It can, however, work with India (as well as Pakistan) to ensure that its evolving deterrent remains

modest in size, surreptitious in nature, and slow to be used. Toward that end, the United States should prepare to play three additional roles: First, it should serve as a helpful critic—in private and with due sensitivity to India's security concerns. Second, it should share its own assessments about the character of the strategic environment facing India. Third, it should translate its stated preference for Indo-Pakistani reconciliation over Kashmir into a clear and articulated tenet of its regional policy.

- **Work with India to develop an overarching strategic vision to guide bilateral U.S.-Indian relations and reconcile the interests of both countries.** Such a vision would provide a means for the United States to engage India in a way that supports larger American strategic interests, such as stability in Asia, freedom of navigation in the northern Indian Ocean, coalition arrangements in support of peace operations, and the prevention of further diffusion of weapons of mass destruction.

RAND research briefs summarize research that has been more fully documented elsewhere. This research brief describes work done for RAND's Project AIR FORCE; it is documented in India's Emerging Nuclear Posture: Between Recessed Deterrent and Ready Arsenal, by Ashley J. Tellis, MR-1127-AF, 2001, 840 pp., ISBN 0-8330-2774-3, available from RAND Distribution Services (Telephone: 310-451-7002 or toll free 877-584-8642; FAX 310-451-6915; E-mail: order@rand.org). Abstracts of RAND documents may be viewed on the World Wide Web (<http://www.rand.org>). RAND® is a registered trademark. RAND is a nonprofit institution that helps improve policy and decisionmaking through research and analysis; its publications do not necessarily reflect the opinions or policies of its research sponsors.

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