

Nonproliferation Export Controls in India

UPDATE 2005



Center for International Trade and Security
The University of Georgia

A light gray outline map of India is centered on the page. The map shows the country's borders and is positioned behind the main title text.

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ABOUT THE CENTER FOR INTERNATIONAL TRADE AND SECURITY

The Center for International Trade and Security (CITS) works to expand the opportunities for peace and security. Its main programs address the dangers posed by transfers of weapons of mass destruction (WMD) and WMD-related technology and materials. CITS pursues its mission by:

- Conducting policy-relevant research about the dangers that stem from the trade in and theft of weapons and weapons-related technologies and materials
- Sharing the insights from this research with policymakers, industry representatives, educators, nongovernmental organizations, and the public, both in the United States and abroad
- Disseminating knowledge through public forums, editorials, briefings, books and articles, Internet publications, and the publication of a journal, *The Monitor*
- Organizing exchanges of officials and experts in an effort to stimulate greater commitment to peaceful trade and to preventing the spread of dangerous weapons and technologies
- Establishing training programs for government officials and others in “best practices” for controlling, monitoring, and preventing the trade in WMD and related items
- Preparing undergraduate and graduate students for careers in international security and nonproliferation through its Security Leadership Program, its internship program, and courses on nonproliferation, security, and political economy conducted within the University of Georgia School of Public and International Affairs
- Research, teaching, training, and public service that enhance understanding of changes in the global strategic landscape, such as globalization, the growing influence of economics and technology on security policy, and the roles played by non-state actors in the economic and security domains

Current and longer-term activities of CITS include:

- Periodic evaluation of national export control systems in approximately 30 countries
- Export control and technology security training for policy officials from countries such as Russia, China, and India
- Training on internal compliance programs for firms that produce dual-use items
- Research that fosters a strong nuclear security culture among officials in select countries
- Research on reforming multilateral export control regimes

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Foreword

One of the main activities of the Center for International Trade and Security at the University of Georgia (CITS) is research and public service related to nonproliferation export controls. CITS researchers have been involved in this work for almost two decades and, in recent years, have conducted over 30 evaluations of national export control systems worldwide, as well as evaluations of all of the multilateral export control regimes. This report on Indian export controls is the most recent product of our labors. It calls attention to the significant revisions and additions the Indian export control system has undergone since our last report, compiled in 2002-03.

The start of India's economic reforms, which coincided with the end of the Cold War, has transformed the economic landscape, as well as the strategic context surrounding the export control system. Incremental, sustained improvements have been made to the dual-use control lists, and to the licensing and enforcement infrastructure. This progress has also highlighted areas in which more work is required to bring the Indian system fully up to international standards. India's quest to emerge as one of the world's leading knowledge-based economies would be greatly advanced should New Delhi put in place an international-caliber architecture for export controls and technology security.

In January 2004, President George W. Bush and then-Prime Minister Atal Bihari Vajpayee initiated the Next Steps in Strategic Partnership (NSSP) compact, which seeks to substantially improve Indo-U.S. economic and security ties. It is noteworthy that export controls undergird the pursuit of the NSSP's goals. I hope the policy and academic communities will find this report useful as they assess the current status of India's export controls, and as they consider strategies to solidify India's contributions to regional and global trade and security. It provides specific recommendations, cast within this strategic context, to help India attain its goals.

The report builds upon nearly a decade of work by Anupam Srivastava and Seema Gahlaut, drawing on their extensive professional associations within the Indian and U.S. policy communities. ■

Gary K. Bertsch
Director, Center for International Trade and Security
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Executive Summary

Countries look to their international obligations and their domestic strategic imperatives when determining how much policy attention and how many resources to allocate to upgrading and sustaining strategic trade controls. India is a significant potential source of advanced dual-use technologies; it has also refrained from joining the Non-Proliferation Treaty or any of the multilateral export control arrangements, namely the Nuclear Suppliers Group, Australia Group, Missile Technology Control Regime, and Wassenaar Arrangement. To the casual observer, India might seem to be a weak link in the international nonproliferation regime.

Yet India has a decades-old system of export controls. With the exception of a few cases in which forbidden items were transferred out of the country without government approval, India has compiled a track record of controlling proscribed dual-use exports that compares favorably with most signatories to the export control regimes. The explanation for this seemingly anomalous behavior is straightforward: India thinks of itself as a responsible international player whose domestic capabilities must never contribute to the proliferation of weapons of mass destruction (WMD) or undermine regional or international security.

Since the inception of Indian export controls, a senior interagency group of officials has met as needed to evaluate significant dual-use license applications. This system, however, cannot suffice in contemporary times. Economic liberalization continues to increase the role of private entities in dual-use sectors, swell the number of license applications, and amplify the challenges to effective enforcement. Recognizing this, the Indian leadership has begun to systematically upgrade the legal and procedural aspects of the nation's export controls.

The transition to a more formal, control-list-based system of export controls has been slow, but it is unlikely to be derailed by domestic opposition. India embarked on a program of economic reform in 1991. Since then the government's criteria for measuring policy success have gradually become pragmatic and tangible, in welcome contrast to the disjointed mix of lofty ideology and desultory implementation that formerly characterized its operations. This pragmatism has come to permeate the government establishment. It is visible in coordinated efforts to position India as a knowledge-intensive economy, poised to become a hub of global manufacturing and services in high-technology sectors worldwide.

Economic indicators attest to this growth trajectory. The Indian economy is now the world's tenth largest in absolute terms, its fourth largest in terms of purchasing power parity. Its foreign trade has grown by over 20 percent annually in recent years, reaching \$170 billion, or almost 1 percent of global trade, in 2004-05, and is expected to double by 2008-09. Its peak import duty has been reduced to 15 percent, comparable to East Asian levels, while the share of advanced manufactures and dual-use items produced by Indian firms is rising fast. The country's rapidly developing information technology (IT) sector has provided the technical backbone for considerable advances in biotechnology, pharmaceuticals, aerospace, and other dual-use sectors. Over 100 of the Fortune 500 companies have subsidiaries in India. These subsidiaries either produce for Asian markets or hire skilled but cheap technicians to power their R&D units.

On a parallel front, India's leadership is matching future weapons production and acquisition to specific threats to national security. Diversifying procurement sources and encouraging public-private collaboration in defense production are key elements in this effort. However, both of these courses of action require improvements to the firewalls between Indian military and civilian systems. It has also become clear that the infrastructure for strategic trade controls must be strengthened before advanced dual-use technology and systems can be imported into India.

The above strategic context is critical to understanding the domestic determinants of Indian export control behavior. In the following sections, we identify areas that require sustained attention and policy innovation from India. Some of these areas present opportunities for external actors to engage India and encourage it to harmonize its system with multilateral standards.

Legal Basis

The legal framework for export controls is quite extensive and has been in operation for several decades. Separate laws cover nuclear, chemical, and biological export controls. Since 2002, official statements have indicated that efforts were underway to amend the Atomic Energy Act (1962) and create a national export control law. The first positive change took place in 2003, when India created a single, unified control list of all dual-use items. The new list was dubbed SCOMET, meaning Special Chemicals, Organisms, Materials, and Technologies. All items on the list undergo the same licensing process and scrutiny, regardless of whether they fall into the nuclear, chemical, biological, or missile-related categories.

The next welcome step in this direction came in the form of a new “WMD Act,” which India adopted in May 2005, in part to fulfill its obligations under UN Security Council resolution 1540. The *Weapons of Mass Destruction and Their Delivery Systems (Prohibition of Unlawful Activities) Act, 2005* criminalizes the possession of WMD by unauthorized individuals and entities. The provisions of the Act apply to export, transfer, re-transfer, transit, and transshipment of material, equipment, or technology related to weapons of mass destruction—thereby closing some of the loopholes in existing laws and regulations that could be exploited by non-state actors and terrorists seeking weapons of mass destruction and related materials. Further, this Act provides a more comprehensive definition of “technology,” incorporating intangible technology transfers by Indian citizens abroad and by foreign nationals studying or working in India. It also establishes specific civil and criminal penalties for violations and expands liability for WMD export control violations to all individuals involved in a particular business enterprise. Finally, the Act establishes that an individual will be deemed in violation of its provisions if he or she “knowingly facilitates” prohibited WMD-related activity and exports an item “knowing that the item is intended to be used” in WMD. This increased liability on the individual clearly suggests that the intent of the catch-all clause (although not the clause itself) has been inserted into the regulations, and into the implementation of India’s controls over WMD-relevant strategic exports.

However, some additional reforms to the legal basis will be needed as Indian dual-use exports grow:

- India still needs to promulgate a unified comprehensive export control law that consolidates various acts, regulations, public notices, administrative decrees, appendices, and circulars to explicitly define India’s policy regarding WMD-relevant exports, export controls, and penalties for export control violations. Other states that follow the common-law tradition, such as the United Kingdom, have been able to enact such laws, although it took several years and scandals involving exports to Iraq in the early 1990s to spur the British government into action. To preempt such embarrassments, India should adopt a unified export control law, a crucial component of any export control system.
- The new WMD Act defines “technology” more broadly than “equipment and materials” and expands the legal scope of controls beyond the IT sector, to include the aerospace, electronics, chemical, and pharmaceutical sectors. The same set of definitions and similar regulations needs to be explicitly incorporated into the Indian export-import laws to control transfers of intangible technologies. This would impose an unambiguous obligation on all

industries that manufacture dual-use technology to actively control intangible technology flows. Finally, there should be a change in the existing requirement (for the IT sector) that intangible transfers be reported after the fact. Regulations should be put into place that require official authorization, through established procedures and channels, *before* the transfer takes place. Such stringent requirements are difficult for a country that seeks to develop a knowledge-intensive economy, but the experiences of the United States and the European Union should offer useful pointers as India pursues this option.

- Taking its cues from the phraseology used in the new WMD Act, India needs to make catch-all controls more explicit in its export-import regulations. It also needs to draw on the experiences of other developed states as it adapts its regulatory guidelines and targets enforcement capabilities. This will require the government to maintain a formal list of suspect end-users, regardless of whether it sees fit to make such a list public. The government of India needs to begin taking industry leaders and academia into its confidence with regard to problematic end-users, whether routinely or on a case-by-case basis.
- The international nonproliferation community has come to recognize brokerage firms, warehousing entities, and freight forwarders as crucial but weak links in the nonproliferation and counterterrorism chains. As such, supplementary regulations to the new WMD Act will be required to furnish implementing procedures regarding these actors, as well as mechanisms to routinely apprise them of their export control obligations.

Licensing

The government has offered exporters incentives to file export license applications online, made the pertinent regulations available online, and made its export control interface with applicants more user-friendly. India's efforts to automate the export licensing process are fairly advanced, earning accolades from U.S. officials who have been promoting automation during their export control outreach endeavors elsewhere. Nevertheless, some additional improvements are in order:

- The Directorate General of Foreign Trade (DGFT) currently has dual and somewhat contradictory roles: It promotes exports while also promoting export controls. Such a conflation of roles is not unusual in emerging economies. However, these competing priorities result in a continual struggle between DGFT personnel who want to allocate scarce resources to improve the efficiency and transparency of the licensing system and those who seek additional resources to train exporters to comply with export control norms and regulations. Most countries with advanced economies have established separate agencies to promote trade and improve export control compliance. As the volume of technology-embedded trade grows, India ought to consider this option.
- India does not release data about export licensing and violations to the public. Its occasional claims to have a perfect record on export controls generate skepticism and concern rather than confidence in its ability to control sensitive exports. The logic of organizational management and the experience of major technology exporters show that no system is perfect. It is possible that, as in some other countries, the number of formal license denials is very low: Licensing officials may use informal consultations to discourage potential exporters from submitting applications that are likely to be rejected. To build confidence in its export controls, India should at least share aggregate data about licenses approved and denied, demonstrating that its policies and procedures are thwarting suspect transactions.

Enforcement

The legal basis for enforcing export controls in India is fairly comprehensive. The institutions and procedures needed to enforce the law are well-established and improving. Since 2003, for instance, India has worked aggressively to digitize the relevant documents; expanded the DGFT and customs websites; and used its Electronic Commerce/Electronic Data Interchange (EC/EDI) program to upgrade the technical and procedural links between various field offices and the central offices of the DGFT, Indian Customs, and other regulatory agencies that monitor enforcement and commercial intelligence. Customs officials receive extensive training in interdicting narcotics, explosives, and chemicals. Another welcome step is the Central Excise Tariff (Amendments) Bill, which the Indian Parliament passed on March 23, 2005. It mandates a common classification code for both customs and central excise, in line with the code followed by the DGFT and the Directorate General of Commercial Intelligence and Statistics. It seeks to eliminate problems arising from the divergence between the existing commodity classifications, and is identical to the internationally accepted eight-digit commodity classification. It is expected to boost India's trade by simplifying statistical recordkeeping, facilitating electronic data processing, and greatly reducing the processing time for importers and exporters. Nonetheless, some improvements are warranted in the near future:

- The training furnished to customs officials needs to include dual-use nuclear and missile exports. To date, these officials have dealt primarily with clearly identifiable materials for which export licenses are required. Because of India's growing dual-use manufacturing capabilities, however, customs officials and border guards are increasingly expected to encounter machine sub-parts and components containing advanced technology that defies easy classification. Such cases place a premium on the prudential judgment of customs and border security officials. Broader training would equip them to reach wise decisions about ambiguous shipments.
- A "product identification" database should be incorporated into the EC/EDI system to enhance the ability of customs officials and border guards to detect deliberate mislabeling of dual-use items. Such databases could include not only technical descriptions of controlled items, but also the civilian and WMD-related end-uses to which these items could be put if their design and specifications were altered. Pictures showing various configurations of these items should also be included in such databases to assist customs and port authorities. Several other countries deploy such databases to good effect; India should follow their example.
- Officials at ports and borders would also benefit from receiving upgraded communications equipment—email, telephone, and fax—and standard procedures for consulting with technical experts in real-time. The technical experts who help the DGFT review license applications should be made available when enforcement officers encounter suspect shipments. They could perform invaluable service by helping determine whether the performance or design parameters of an import or export were consistent with its stated end-use and whether the shipment could be easily modified to become military- or WMD-relevant.
- The new WMD Act stiffens the penalties for violations. However, as Indian companies expand their operations, profits, and assets, they could increasingly view modest monetary fines as a routine "cost of doing business." Deterrence would suffer. Now that many countries are adopting stricter nonproliferation measures, constricting the availability of sensitive materials and technologies, some Indian exporters might come to perceive proliferation as a way to turn a profit at little risk. Growing domestic competition and wafer-thin profit margins, in short, might drive unethical businesses to consider engaging in proliferation-sensitive operations unless the costs are daunting. Stringent, well-publicized enforcement of the law and imposition of stiff penalties would help shift their cost-benefit calculations in favor of nonproliferation.

Government-Industry Outreach

In recent years, government agencies in India have shared information more readily with domestic industry and have sought to make themselves more accessible to industry leaders. For the first time, the 2005 Export-Import Policy explicitly mentions that the DGFT will organize outreach to industry to ensure compliance with the export and import laws. Nevertheless, three main challenges remain for the DGFT to adequately fulfill this mandate:

- The interaction between government and industry has to be regular and scheduled rather than episodic. This alone would improve industry's self-regulation mechanisms and promote genuine dialogue on emerging issues such as encryption, restrictions on the movements of personnel with sensitive weapons-related skills, and the security of dual-use technologies provided by government labs to the private sector.
- Government must redouble its efforts to convince small and medium-sized exporters and importers to institute rigorous internal compliance programs. This outreach should extend to brokerage and warehousing firms as well.
- Government must establish better means of monitoring the export activities of Indian firms' foreign subsidiaries, and of foreign companies that operate on Indian territory. Extending the outreach effort to these two categories of exporters will help ensure that they follow Indian export control regulations as assiduously as do other exporters.

India's export control architecture is being redesigned to make the system more transparent, user-friendly, effective, and accountable. Cutting-edge issues of international concern are being debated and gradually incorporated into the Indian system. The advanced states' obligations to the multinational export control regimes restrict the scope of dual-use technology transfers to and collaboration with Indian firms. The domestic driver behind recent changes to Indian export controls is the government's desire to gain access to advanced technology-embedded capital investment, propelling further economic growth. The external dimension, then, is strongly influencing India's decision to bring its export control policies and procedures into closer conformity with international standards.

In this context, U.S.-India engagement within the bilateral "Next Steps in Strategic Partnership" (NSSP) framework is of particular relevance. Announced by President George W. Bush and then-Prime Minister A. B. Vajpayee in January 2004, the NSSP envisages cooperation in the civilian nuclear and space sectors, high-technology commerce, and missile defense. The two sides concluded Phase One of this initiative in September 2004, with India agreeing to procedures for conducting end-use visits in India and to enhanced nonproliferation measures. The United States also recently posted an export control attaché at its embassy in New Delhi to conduct end-use checks and outreach to Indian government officials and industry on export controls. The two sides are now working on additional phases of the NSSP, under which India will continue to strengthen its export control regime and the United States will ease certain restrictions on exports of dual-use items to India.

In sum, New Delhi sees external factors converging with its domestic strategic imperatives. This convergence is driving the current evolution of India's export control system. Implementation might lag by a few steps for the foreseeable future. As India's elite comes to view export controls as a mechanism to safeguard the nation's own dual-use capabilities while gaining access to advanced capabilities from abroad, however, India's strategic trade control policies and procedures will increasingly mirror international standards. ■

Introduction¹

The history of export controls in India is an extensive one. Since the nation obtained its independence from Britain in 1947, the central, or federal, government has maintained strict control over exploration, research, imports, and exports of fissile minerals and technology. It has also maintained direct or indirect control of research, development, and production of almost all defense-related items, ranging from guns and ordnance to missiles and major combat platforms. For instance, the government has retained direct oversight over missile research and development by confining these activities to national laboratories and restricting production to Defense Public Sector Undertakings (DPSUs).² The government maintains indirect control over the R&D and production of conventional arms by reserving these activities to government-owned and -managed ordnance factories. The chemical, pharmaceutical, and biomedical sectors, however, have always featured a mix of public- and private-sector entities. This difference in degrees of government control over the various kinds of technology is possibly the best explanation for India's successes and failures in quelling the proliferation of weapons of mass destruction (WMD) beyond its borders. The tightly controlled nuclear and missile/space sectors have seen few violations, while nearly all reported cases of proliferation from India since the 1980s have involved exports of dual-use items.

¹ This report draws extensively from an earlier assessment, Seema Gahlaut, "Export Control Developments in India," in Michael Beck, Richard Cupitt, Seema Gahlaut, and Scott Jones, *To Supply or to Deny: Comparing Nonproliferation Export Controls in Five Key Countries* (New York: Kluwer Law International, 2003). The authors would also like to gratefully acknowledge the support of the Ploughshares Fund, whose grant ran concurrent to that of the Carnegie Corporation of New York and helped make this report possible.

² Currently, 39 ordnance factories and 8 DPSUs manufacture equipment and stores for the Indian armed forces. The government recently began to promote greater civil-sector participation in defense production. See for instance Anil Bhat, "Defence Industry Marches Ahead," *The Pioneer*, March 26, 2004.

The Context of International Interest in Indian Export Controls

The international community has been concerned about the possibility of proliferation of WMD-related technology from India, especially since the second round of Indian nuclear tests in May 1998, which ended the moratorium India imposed on itself following its first round of tests, in May 1974. The U.S. administration insisted on adding export controls to the U.S.-India agenda as one of five benchmarks³ toward which India had to show progress in order to assure the international community that it is a responsible state, that it is cognizant of the dangers involved with possessing and proliferating WMD, and that it is willing to commit resources to managing its WMD-related capabilities in the interests of national and international security. The focus on strengthening export controls has continued in subsequent U.S.-India agreements, including the High Technology Cooperation Group that was started in 2003, and the Next Steps in Strategic Partnership (NSSP) that was initiated by President Bush and then-Prime Minister Vajpayee in 2004. The NSSP envisages incremental and reciprocal steps by each side leading to bilateral cooperation in four areas—civilian space programs, civilian nuclear activities, high-technology trade, and missile defense—with export controls as the “enabling mechanism” for this cooperation.⁴ In September 2004, both sides signed an agreement to formally conclude Phase One of NSSP. They have begun work on Phase Two.⁵

In the wider context, the four multilateral export control regimes—the Nuclear Suppliers Group (NSG), Australia Group (AG), Missile Technology Control Regime (MTCR), and Wassenaar Arrangement (WA)—recognize India’s steady emergence as a potential source of secondary proliferation. The regimes are keen to ensure that the country continues to exercise unilateral restraint in its dual-use export policies.⁶

India presents a somewhat unique challenge to the export control regimes. It has had nuclear capacity for a long time,⁷ and since the 1990s has emerged as a significant source of information technology and software exports. Complicating matters, the Indian chemical, pharmaceutical, and biotechnology (including bioinformatics) sectors reside largely within the private sector, and are growing at a considerable pace.⁸ India is keen to generate resources to modernize its armed forces

³ The five benchmarks for India (and Pakistan) were: halting fissile material production; signing the Comprehensive Test Ban Treaty (CTBT); showing restraint in missile development, testing, and deployment; strengthening export controls; and starting a dialogue on Kashmir. “Remarks by Strobe Talbott on Nonproliferation and Security in India and Pakistan,” U.S. Information Agency Report and Full Text of Remarks, January 22, 1999, <<http://www.clw.org/pub/clw/coalition/talb0199.htm>>.

⁴ Kenneth L. Juster, “A New Strategic Partnership for the U.S. and India,” *Wall Street Journal Online*, October 1, 2004, <<http://online.wsj.com/article/0,,SB109658596840933144,00.html>>.

⁵ It is noteworthy that progress in each of the above areas would be undergirded by further strengthening of Indian export controls, including on the important issue of technology security. On the U.S. side, the nature and scope of its cooperation would be configured within the constraints of its domestic laws and its international nonproliferation commitments. See Siddharth Varadarajan, “India-U.S. Negotiations Entering Crucial Stage,” *The Hindu*, October 18, 2004, <<http://www.hindu.com/2004/10/18/stories/2004101806281100.htm>>.

⁶ The challenge of “secondary proliferation” refers to the probability that emerging economies such as those of China, India, Israel, Mexico, Pakistan, and Indonesia, countries which are not members of the export control regimes (except for China’s accession to the NSG in June 2004), will become alternative suppliers of technologies denied to suspected proliferators (states and sub-state actors) by the regime members.

⁷ In 1956, India’s first research reactor, Apsara, attained criticality (i.e., became operational). And at least since 1964, when the reprocessing facility at the Bhabha Atomic Research Center (BARC) was commissioned, India has had the capacity to separate plutonium. David Albright, Francis Berkhout, and William Walker, *Plutonium and Highly Enriched Uranium 1996: World Inventories, Capabilities and Policies* (Oxford, UK: Oxford University Press, 1997).

⁸ For some of these figures, see Anupam Srivastava and Seema Gahlaut, “Curbing Proliferation in Emerging Suppliers: Export Controls in India and Pakistan,” *Arms Control Today*, September 2003, <http://www.armscontrol.org/act/2003_09/AnupamandGahlaut.asp>.

and to rapidly commercialize the vast pool of indigenously developed technologies in all of these sectors.⁹

On the other hand, although India is a signatory to the Chemical Weapons Convention (CWC) and the Biological and Toxin Weapons Convention (BTWC), it is not bound by any treaty obligation in the nuclear and missile spheres.¹⁰ As a non-member of the Nuclear Non-Proliferation Treaty (NPT) and the export control regimes, moreover, India is not bound by international norms and obligations against nuclear, missile, and high-technology dual-use exports. As such, it has the capacity to undermine the regimes.¹¹ To prevent that from happening, the regimes have reached out to India, especially in the years since the 1998 nuclear tests. An NSG delegation visited India for consultations on nonproliferation and peaceful uses of nuclear energy,¹² while the MTCR revived consultations with New Delhi in 2004.¹³

Meanwhile, experts continue to debate how to persuade India to keep restraining its dual-use exports in the future.¹⁴ This debate is linked to the broader debate over how to reform the export control regimes to help them better promote international security.¹⁵ The central questions driving this debate: Should the regimes extend membership to all countries that have the capacity and the incentive to exploit WMD-related technology for economic reasons? Or, should they limit membership to countries that share similar values and commitments, but might lack the capacity to proliferate?¹⁶ India straddles both these categories in that it possesses capabilities related to WMD but has demonstrated a sustained commitment to nonproliferation beyond its borders. Thus, it maintains a unilateral system for controlling exports of WMD and related technologies and materials. And, although it refuses to sign the NPT, New Delhi is an active member of the International Atomic Energy Agency (IAEA) on nuclear safety issues.¹⁷

⁹ In 2003, the DRDO (Defense Research and Development Organization), the chief defense technology-generating unit of the government of India, provided 176 technologies that it had developed—which have civilian end-uses as well—to the Indian private sector. And since 2003-04, the government has permitted up to 26 percent private-sector equity and investment in the defense sector. Although defense collaboration between the public and private sectors in India has yet to become commercially viable, greater progress was visible at the latest annual defense expo, hosted by the government in February 2005. See for instance “Aero India 2005 Signs Off in Style,” *The Hindu*, February 14, 2005, and Asha Rai and Girish Rao, “French, Russians Feel the Heat of Competition,” *Economic Times*, February 13, 2005.

¹⁰ In 1998, India deposited a list of chemical-weapons production sites with the Organization for the Prohibition of Chemical Weapons (OPCW) at The Hague. “While India, the United States of America, and a third State Party met their obligation in relation to the first destruction target (20 percent of its Category 1 arsenal by the end of 2001), only India and the United States of America met their obligation in relation to the second destruction timeline.” Source: “Consolidated Unclassified Verification Implementation Report (April 1997 - 31 December 2002),” OPCW Technical Secretariat Background Paper, First Review Conference RC-1/S/6, <http://www.opcw.org/html/global/ra_frameset.html>.

¹¹ India is a member of the Chemical Weapons Convention and has enacted extensive controls on exports of chemicals specified under the CWC Schedules. India is also member of the Biological Weapons Convention (BWC), and despite the absence of a similar specification of controlled items in this treaty, New Delhi maintains self-imposed restraint on exports of pathogens, enforcing controls similar to those of the Australia Group.

¹² At the request of the NSG, a delegation comprising the current chair (South Korea) and representatives from the Czech Republic and Sweden visited India for an official meeting on April 7, 2004. No breakthrough was reported, but both sides have agreed to continue their dialogue on a regular basis. See “On Visit of a Nuclear Suppliers Group (NSG) Troika,” Embassy of India Website, April 8, 2004, <http://www.indianembassy.ru/docs-htm/en/en_05_04_t0804_2004.htm>. Officials from the U.S. Nuclear Regulatory Commission also visited India twice during 2003-04 to discuss physical protection and nuclear safety issues.

¹³ An MTCR delegation visited India in September 1994, and unofficial consultations occurred in 2001-02. The next official visit did not take place, however, until March 2004.

¹⁴ See for instance Avner Cohen and Thomas Graham Jr., “An NPT for Non Members,” *Bulletin of the Atomic Scientists* 60, no. 3 (May/June 2004): 40-44; Marvin Miller and Lawrence Scheinman, “Israel, India, and Pakistan: Engaging the Non-NPT States in the Nonproliferation Regime,” *Arms Control Today*, December 2003, <http://www.armscontrol.org/act/2003_12/MillerandScheinman.asp>.

¹⁵ For more on this issue, see Michael Beck and Seema Gahlaut, “Creating a New Multilateral Export Control Regime,” *Arms Control Today*, April 2003, <http://www.armscontrol.org/act/2003_04/beckgahlaut_apr03.asp>.

¹⁶ For more on this issue see Seema Gahlaut and Victor Zaborsky, “Do Nonproliferation Export Control Regimes Have the Members They Really Need?” *Comparative Strategy* 23, no. 1 (January-March 2004): 73-91. The recent induction of China into the NSG appears to be a response to the former imperative, while the induction of states like Estonia, Malta, and Latvia suggests the latter imperative.

¹⁷ India has signed all 12 international conventions on antiterrorism measures. However, no effective mechanism enforces these conventions.

Changes in the Domestic Environment in India

In the past decade, India has witnessed changes to its domestic environment that could undermine its unilateral commitment not to proliferate dangerous items beyond its borders. First, as part of the economic reforms that commenced in July 1991, structural changes have nudged the state-dominated economy toward privatized ownership, production, and operational decisionmaking. The government is now seeking more private-sector participation in the development, production, and marketing of a range of dual-use technologies. This will tend to weaken government control over exports of such technologies.¹⁸ Second, the public has come to expect greater pragmatism and efficiency in the management of public resources. Almost all public institutions, including the Defense Research and Development Organization (DRDO)—the principal defense-technology-generating arm of the Indian government—are being scrutinized to determine whether they efficiently manage public resources, and whether the tangible payback from their endeavors justifies the investment of scarce resources.¹⁹ The profitability and efficiency of the atomic-energy and missile programs have come under similar scrutiny.²⁰

At the same time, India's rapid economic growth has spurred the demand for energy and for defense modernization. The nation's growing need for electricity induced the Department of Atomic Energy (DAE) to set an ambitious target of generating 20,000MWe (million watts of electricity) through nuclear energy by 2020.²¹ Similarly, the growing requirement for modernization of the armed forces has applied pressure on DRDO to enhance its efficiency and to compete more effectively with imported products.²² Several DRDO projects, big and small, have been scrapped since 2002. Domestic users—namely the Indian armed forces—have rejected others. In still other cases, DRDO has been forced to drastically improve its performance and delivery parameters.²³

Moreover, while economic growth has resulted in a sustained increase in the R&D and procurement components of the Indian defense budget, the pressure to generate additional revenues has persisted. This pressure could account for the government of India's (GOI) 2002 decision to drop its "blacklist" of countries that were off-limits to exports of conventional armaments.²⁴ The GOI, in short, is anxious to improve the export orientation²⁵ and the financial solvency of domestic organizations in both the civilian and the defense sectors.²⁶ It has achieved some success on this front. India's defense exports rose from a paltry \$93 million in 2003 to \$130 million in 2004,

¹⁸ "Boeing, ISRO to Make, Market Satellites," *Rediff*, June 22, 2004, <<http://www.rediff.com/money/2004/jun/22boeing.htm>>.

¹⁹ See for instance Sundara Vadlamudi, "Auditing India's Strategic Sector," *Rediff*, February 18, 2004, <<http://www.rediff.com/news/2004/feb/19guest.htm>>.

²⁰ V. K. Shashikumar, "Leaks at India's Nuclear Power Plants: Cause for Concern?" *Christian Science Monitor*, October 11, 2002, <<http://www.csmonitor.com/2002/1011/p07s01-wosc.html>>. See also T. S. Subramanian, "Nuclear Energy Thrust: Nuclear Power Corporation Is Poised for a Leap in Its Generation Capacity," *Frontline*, August 17-30, 2002, <<http://www.flonnet.com/fl1917/19170860.htm>>.

²¹ "Fast-breeder Reactors More Important for India," Interview of DAE Chairman by T. S. Subramanian, *The Hindu*, November 24, 2004, <http://www.igcar.ernet.in/press_releases/press11.htm>.

²² DRDO has faced increasing demands from its customers to deliver indigenous products on time, as per agreed quality specifications, and within budget. See for instance Kaushik Kapisthalam, "What's Behind the DRDO Bashing?" *The Rediff Special* (three-part series), January 2005, <<http://us.rediff.com/news/2005/jan/20spec1.htm>>.

²³ George Iype, "Chinks in the Armor: What Ails the DRDO, India's Premier Defense Research Organization?" *Rediff* (five-part series), March 2000, <<http://www.rediff.com/news/2000/mar/13drdo.htm>>.

²⁴ "India Drops Arms Export Blacklist," BBC News, October 28, 2002, <<http://news.bbc.co.uk/go/em/fr/-/1/hi/business/2367431.stm>>.

²⁵ "India Could Be Exporting Missiles," *Indian Express*, January 13, 2005, <<http://www.expressindia.com/fullstory.php?newsid=40692>>.

²⁶ M. Somasekhar, "India's Missile Program Is Spurring Industries," Interview with Dr. V. K. Saraswat, Director, Research Centre Imarat, *Business Line*, *The Hindu*, February 6, 2004, <<http://www.thehindubusinessline.com/2004/02/06/stories/2004020601500900.htm>>.

including sales of sophisticated items such as transport planes, radars, and multi-role helicopters.²⁷ India's publicly owned aeronautical firm, National Aeronautics Ltd., has signed a memorandum of understanding with the domestic private-sector software giant, Tata Consultancy Services, to offer solutions and services for the global aerospace sector.

In another significant development, BrahMos, a supersonic cruise missile developed by DRDO (India) and Rosoboronexport State Corporation (Russia) and marketed by BrahMos Aerospace, has received serious purchase inquiries from at least seven countries. BrahMos represents the most significant Indian foray to date into the global market in high-tech offensive systems. Its early success indicates a trend that will likely accelerate in the years to come.²⁸ In another indication of growing international interest in the Indian aerospace industry's modest labor costs and software skills, the France-based MBDA Missile Systems has submitted a proposal to DRDO to jointly produce missiles for sale to its own global customers.²⁹

All of these factors have converged, prodding the government to allow more exports of dual-use technology and thus to generate the resources needed to enhance production, put existing capacity to better use, seek out new foreign-domestic partnerships, and further modernize domestic firms in both the military and the civilian sectors.

The legal side of export controls has also been affected by the GOI's economic liberalization program. The Indian export-import (EXIM) policy regulates export controls on WMD-related technology. *EXIM Policy 2002-2007*, the government's most recent statement of official policy in this area, emphasizes promoting exports, facilitating the efforts of Indian industry to penetrate foreign markets, developing products in conjunction with foreign partners or subsidiaries of domestic companies for sale in foreign markets, and generating revenue through exports of technology.³⁰ New Delhi's statement of *Foreign Trade Policy 2004-2009* further underlined this shift in emphasis, stipulating important structural and procedural changes intended to further integrate India into the global economic matrix. A greater domestic-foreign mix in the relevant factors of production (i.e., labor, capital, and technology) was only one of the provisions contained in the document.³¹

In parallel with these other changes, the Indian government is working to put a sound legal and procedural infrastructure in place to prevent WMD-linked terrorism,³² ensure adequate protection of intellectual property rights (IPRs),³³ prevent money laundering,³⁴ and tighten up the regulatory

²⁷ "Defense Exports Touch \$130 Million Mark," Press Trust of India, February 9, 2005.

²⁸ Siddhartha Kashyap, "10 Countries Show Interest in BrahMos," *Times of India*, December 14, 2004, <<http://timesofindia.indiatimes.com/articleshow/957773.cms>>.

²⁹ Huma Siddiqui, "Now, Missile Companies Heading for India," *Indian Express*, February 17, 2005, <<http://www.expressindia.com/fullstory.php?newsid=42060>>.

³⁰ See for instance Commerce and Industry Minister's Speech, <<http://dgft.delhi.nic.in/>>.

³¹ Directorate General of Foreign Trade, Ministry of Commerce and Industry, Government of India, *Foreign Trade Policy 2004-2009*, <<http://dgft.delhi.nic.in>>.

³² This was done by amending the 1967 Unlawful Activities (Prevention) Act via the new Unlawful Activities (Prevention) Amendment Ordinance of September 21, 2004. The ordinance defines a terrorist act, covers terrorism against India and other countries, and criminalizes aiding, abetting, harboring, concealing, and financing terrorist acts. The text of the Act is available at South Asia Terrorism Portal Website, <http://www.satp.org/satporgtp/countries/india/document/actandordinances/the_unlawful_activities__amendord2004.htm>.

³³ In terms of securing international patents, India currently ranks third, behind the United States and Japan. Through a Government of India Ordinance prepared by the Science and Technology Ministry, a WTO-compliant patent law was put into place on December 30, 2004 that significantly updates the Indian Patents Act of 1970. This ordinance was passed as a new law on March 22, 2005. It will provide international-caliber IPR protection while avoiding infringing on the public interest. It is designed to prevent any inadvertent release of patent-worthy R&D through publication in domestic or international scientific publications. See "LS Passes Patents Bill," *Rediff*, March 22, 2005, <<http://in.rediff.com/money/2005/mar/22patent3.htm>>.

³⁴ Apart from regulating corrupt business practices, the Foreign Exchange Management Act (FEMA), 1999, and the Prevention of Money Laundering Act (PMLA), 2002, regulate channels related to informal movement of funds and other activities that might finance terrorism.

framework governing finance.³⁵ While these changes will improve IPR protection and reduce money laundering, they will also transform the economic landscape, increasing the number of domestic and foreign actors and investors in R&D and downstream dual-use manufacturing and export activities. The cumulative impact of these changes will likely increase the pressure on the government to loosen its export controls, allowing private industry (as well as public-sector defense enterprises) to compete more freely in the global market for technology and armaments.

India's economic and foreign-policy landscape, then, has undergone remarkable change since the 1990s. Even so, few outside the country know much about the specifics of how the Indian government regulates the flow of WMD-related technologies. Nor has there been much domestic public debate on the subject. Why? This state of affairs derives primarily from the fact that the multilateral regimes' interest has focused overwhelmingly on India's acquisition of WMD, especially nuclear weapons. India has commanded little attention as an international proliferator.³⁶ Additionally, there have been very few reports of unauthorized exports from India to concentrate the attention of the domestic and external strategic community. Until the 1990s, finally, the private sector was not permitted the space and scope to become a dynamo of economic growth in the country. Only in 1993-94 did the GOI make a serious attempt to "rationalize" export control policy and make it more user-friendly.³⁷ Few can claim expertise on Indian export controls under these circumstances.

This report provides an overview of recent developments in Indian export control policy. It updates previous assessments published in 1997, 1998, 2001, and 2003. It is based on data from official publications and other published sources, supplemented by the authors' interviews of and informal discussions with Indian officials, experts, and industry representatives during June and December 2003, January 2004, July-August 2004, and December 2004.³⁸

³⁵ All domestic and foreign firms are now required to report non-cash transactions exceeding Rs 1 crore (about \$45 million) per month to the newly created Financial Intelligence Unit. These and related measures went into immediate effect after the rules were tightened under the Prevention of Money Laundering Law. See for instance Hema Ramakrishnan and Shaji Vikraman, "Govt Gets Its Financial Intelligence in Place," *Economic Times*, November 17, 2004, <<http://economictimes.indiatimes.com/articleshow/923799.cms>>.

³⁶ Discussions of India's export control policy by Indian scholars and officials have been few and far between. To date the major works have included S. Chandrashekar, "Export Controls and Proliferation: An Indian Perspective," in Gary Bertsch, Richard Cupitt, and Steve Elliot-Gower, eds. *International Cooperation on Nonproliferation Export Controls: Prospect for the 1990s and Beyond* (Ann Arbor, MI: University of Michigan Press, 1994); Brahma Chellaney, "Nonproliferation: An Indian Critique of U.S. Export Controls," *Orbis*, summer 1994, <http://www.findarticles.com/p/articles/mi_m0365/is_n3_v38/ai_15595403/pg_1>; Rahul Singh, in Francine Frankel, ed., *Bridging the Nonproliferation Divide: The United States and India* (Lanham, MD: University Press of America, 1995).

³⁷ DAE official in a telephone conversation with the author, October 20, 1997. Reconfirmed by a senior official from the Ministry of Defense, New Delhi, January 2001.

³⁸ These meetings took place in part through two grants from the Ploughshares Fund that ran concurrently with the grant from the Carnegie Corporation of New York.

Political Commitment to Nonproliferation

India's overall political commitment to nuclear disarmament and nonproliferation can be assessed in part by examining its official declarations and its support of numerous resolutions approved by the United Nations.³⁹ India has been a member of the IAEA since 1957.⁴⁰ It was the first country to propose the Comprehensive Test Ban Treaty (CTBT), in 1954. New Delhi signed the Partial Test Ban Treaty (PTBT) in 1963, the BTWC in 1974, and the CWC in 1993. It has been an active member of the UN Conference on Disarmament and has proposed several plans that would strive for comprehensive global disarmament rather than regional arms control. And, as discussed previously, India has maintained a fairly strict, though unilateral, regulatory policy regarding WMD-related exports.

Although the Indian government has been openly critical of the multilateral export control regimes, it evidently has not turned a blind eye to export control breaches. There have been no public reports of clandestine nuclear or missile sales from Indian entities.⁴¹ The only exception involved two former officials from the Department of Atomic Energy who allegedly helped Iran with its missile and nuclear-weapons programs.⁴² The U.S. State Department imposed sanctions on these individuals on September 30, 2004.

According to a senior DAE official,⁴³ India's nuclear exports fall into three categories: transactions conducted under the aegis of the IAEA, those conducted under bilateral agreements, and those conducted under commercial arrangements. Currently, the private sector in India is a vendor for BARC (Bhabha Atomic Research Center), NPCIL (Nuclear Power Corporation of India Ltd.) and IGCAR (Indira Gandhi Center for Atomic Research). The private sector has not developed its own designs of nuclear dual-use equipment. However, DAE does receive occasional requests from the private sector to export nuclear dual-use substances; these are evaluated using the Special Chemicals, Organisms, Materials, Equipment, and Technologies (SCOMET) conditions in Indian law.⁴⁴

While the Indian nuclear sector has a nearly spotless record, there have been recent reports of Indian private-sector entities selling dual-use chemicals to states in the Middle East.⁴⁵ During the 1980s, the government made no effort to publicly levy sanctions against these entities. Its attitude appears to have changed during the 1990s. Indeed, in a recent instance, the relevant agencies dealt with the violating entity severely through administrative sanctions, even though a formal ruling on

³⁹ In 1950, India submitted a draft resolution to the UN Atomic Energy Commission proposing the establishment of a UN Peace Fund, to be financed from the money saved through disarmament, for use in "the development of under-developed areas." In 1954, India presented the first proposal for a Comprehensive Test Ban at the UN. At the same time, in a separate speech commenting on Eisenhower's Atoms for Peace plan, Nehru expressed opposition to participation in an organization dominated by the great powers.

⁴⁰ In 1957 India accepted the IAEA Statute, but argued against a safeguards regime that applied only to importing countries. India serves on the IAEA's Board of Governors, and has traditionally provided a large contingent of technical staff to the IAEA's various international monitoring and verification assignments.

⁴¹ There have been several instances in which the Bhabha Atomic Research Center and other DAE-affiliated agencies exported nuclear materials to the United States, Europe, and Japan. India has also exported items to several Asian and Latin American countries. See details on the Nuclear Threat Initiative Website, <http://www.nti.org/e_research/profiles/India/Nuclear/2860_2866.html>. However, a majority of these exports took place under the auspices of the IAEA's technical assistance programs.

⁴² The U.S. government has reportedly offered to consider revoking the sanctions if the government of India provides "significant and convincing" proof that the two scientists were not involved in any unauthorized programs. Senior Indian officials told the authors that these scientists were involved in IAEA-approved projects in Iran, and, as such, that their activities were not illicit. See "U.S. Puts Sanctions on Two Indians," Press Trust of India, September 30, 2004; "U.S. Might Reconsider Sanctions on Indian Scientists," Reuters, October 22, 2004, <<http://www.alertnet.org/thenews/newsdesk/N21365128.htm>>; Sultan Shahin, "India, the U.S., and Nuclear Nonproliferation," *Asia Times*, October 8, 2004, <http://www.atimes.com/atimes/South_Asia/FJ08Df05.html>.

⁴³ Email communication with senior DAE official, January 2005.

⁴⁴ For details regarding SCOMET, please see the section on "Control Lists" later in this report.

⁴⁵ These refer to recent cases in which Indian entities violated Indian export control laws to supply dual-use chemicals that have applications in missile and nuclear-weapons programs. See for instance "Dubai Police Arrest Indian for Trying to Sell Nuclear Secrets," BBC Monitoring International Reports, June 13, 2004, and "Indian Entities Involved in Libya's Missile Development: CIA," Press Trust of India, April 12, 2003.

the case remains under deliberation in the Indian court system.⁴⁶

Despite its welcome shift in attitude, the government has refrained from disclosing all of the details surrounding reviews of, debates over, and modifications to its export control policy. The system, then, seemingly is not completely accountable to the public. This closed approach has mixed implications for the future development of the export control system. On the positive side, exempting the policy process from public scrutiny frees it from the acrimonious debate and political wrangling that often characterize open processes in the developed countries. The initial stimulus for the GOI to modernize India's export control policy came not from domestic pressure but from the government's 1993 decision to prepare proactively for a future in which private industry would have an increasing role in exports, especially of dual-use items and technologies.⁴⁷ Similarly, many salutary changes to Indian export control policy since 2002 appear to have stemmed from the GOI's export control dialogue with its U.S. and EU counterparts. On the negative side, excessive concentration of power and expertise within bureaucratic agencies can generate complacency, whereas open systems provide feedback on the adequacy and timeliness of export control reform, helping the government deal with current and emergent threats and opportunities.

The debate over the pros and cons of secrecy and public accountability surfaced again in the fall of 2004, when, as mentioned previously, evidence implicated Indian nuclear scientists in illicit efforts to help Iran with its nuclear program. This is likely to reinvigorate the discussion, underway since 2003 among Indian export control experts, about whether the GOI should enact a law requiring active and retired scientists and technicians working on sensitive programs to keep the government abreast of their whereabouts and doings.

Another set of issues influenced by the debate over secrecy and public accountability relates to India's overall approach toward the multilateral regimes that coordinate policy in the nuclear sphere. In recent years, India has scaled up its civilian as well as its weapons-dedicated nuclear programs. It is simultaneously seeking international cooperation to build additional nuclear reactors to generate electrical power⁴⁸ and equipment to enhance the safety of these installations. Given India's considerable nuclear expertise, the international export control community sees India both as a potential source of secondary proliferation and as part of the nonproliferation solution. The difficulty of reconciling India's nuclear-weapons status within the NPT makes it even more urgent to find a pragmatic *modus vivendi* between New Delhi and the regimes. It is precisely within this context that India and the NSG have reinstated their dialogue over nuclear issues.

The government of India appears to be rebalancing its desire for public discussion of these matters with its desire to pursue pragmatic, issue-based international engagement. We expect the GOI to soon begin contending with the challenges relating to cutting-edge issues such as intangible technologies, brokerage, warehousing and freight forwarders, and possibly the Proliferation Security Initiative (PSI)⁴⁹ and the Container Security Initiative (CSI).⁵⁰

⁴⁶ The case involved an Indian company called NEC Engineering Private Ltd. Acting on a tip from U.S. intelligence, the GOI prosecuted this company for exporting prohibited items—precursor chemicals and missile fuel—to Saddam Hussein's Iraq via shell companies in Jordan and Dubai. For details, see Srivastava and Gahlaut, "Curbing Proliferation from Emerging Suppliers."

⁴⁷ In interviews and discussions with the authors, numerous Indian public officials have explicitly linked early efforts at export control modernization with the economic liberalization underway since the early 1990s.

⁴⁸ The chairman of Nuclear Power Corporation of India Limited (NPCIL) reiterated in 2002 that if the goal of generating 20,000MWe from nuclear power plants by 2020 were to be achieved, then NPCIL must have some flexibility to solicit investment from sources other than the government. Indian officials have stated that these additional sources could be domestic or foreign. See "Nuclear Power Sector to Seek More Investments," *The Hindu*, April 3, 2002, <<http://www.hinduonnet.com/thehindu/2002/04/03/stories/2002040303731300.htm>>.

⁴⁹ U.S. Secretary of Defense Donald Rumsfeld reportedly discussed India's participation in the PSI during his visit to India in 2004. Kathleen T. Rhem, "Rumsfeld Arrives in India for Meetings with 'Rising Global Power,'" American Forces Press Service, December 8, 2004, <http://www.defenselink.mil/news/Dec2004/n12082004_2004120807.html>.

⁵⁰ India plans to start its partnership with the CSI in early 2005 with a pilot project at the Jawaharlal Nehru Port Trust and will gradually replicate the project at other ports if the program's performance warrants. Pranab Dhal Samanta, "India Soon to Join a U.S. Led Security Group," *Indian Express*, January 31, 2005, <http://www.indianexpress.com/full_story.php?content_id=63758>. See also "Exports Get Uncle Sam's Guards," *Economic Times*, February 2, 2005, <<http://economictimes.indiatimes.com/articleshow/msid-1008197,curpg-2.cms>>.

Elements of Indian Export Controls

LEGAL BASIS

I. Legal Framework

India does not have a single, nationally unified export control law or a “system of systems.” Its export controls are governed primarily by the following laws⁵¹:

- i. The Foreign Trade (Development and Regulation) Act of 1992 (No. 22 of 1992), or FTDR.⁵² Under this Act,
 - The *Foreign Trade Policy 2004-2009* document establishes the rationale for overall policy and export orientation.
 - The EXIM policy explicates procedures for regulating exports and imports.
- ii. The Atomic Energy Act of 1962 (No. 33 of 1962)⁵³ and the various public orders issued pursuant to the Act.
- iii. The Chemical Weapons Convention Act of 2000.
- iv. The Environment Protection Act of 1986.
- v. The Customs Act of 1962.
- vi. The Arms Act of 1959 and the Arms Rules of 1962.
- vii. The Weapons of Mass Destruction and Their Delivery Systems (Prohibition of Unlawful Activities) Act of 2005.

Taken together, the first four acts govern the formulation of dual-use export control policy and related lists of controlled items. The Foreign Trade (Development and Regulation) Act of 1992 provides for controls over exports of all (including nuclear) dual-use materials and technology, and establishes civil penalties for export violations. Section 5 of the FTDR is the basis for EXIM policy, which sets forth policy and procedures for classifying items for trade purposes.⁵⁴ These are revised every five years. The most recent version, announced on March 31, 2002, will remain in force during the period 2002-07. The CWC Act of 2000 establishes the legal bases and institutions for complying with the CWC’s mandate, which requires parties to the convention to impose prohibitions and restrictions on exports and imports of toxic chemicals or precursors.⁵⁵ The Environment Protection Act mandates the establishment of procedures assuring the security of and oversight over pathogens, microorganisms, genetically modified organisms, and toxins at any stage of production, import, export, use, or research. The Customs Act of 1962 grants the relevant agencies enforcement power and establishes criminal liability.⁵⁶ Munitions exports and imports are regulated by the Arms Act of 1959 and the Arms Rules of 1962.

⁵¹ Other laws that govern the movement of persons and things in and out of India include the Explosive Substances Act, 1908, and the Narcotic Drugs and Psychotropic Substances Act, 1985.

⁵² This replaced the Imports and Exports (Control) Act, 1947.

⁵³ The Atomic Energy Act of 1962 replaced the Atomic Energy Act of 1948. A major amendment to the 1962 Act was Notification AEA/27/1/95-ER, dated March 1995. It provided a detailed list of “prescribed substances,” namely substances “which are or may be used for the production or use of atomic energy or research into matters connected therewith.” These were to be under the exclusive control of the central government for production, manufacture, purchase, acquisition, and disposal.

⁵⁴ The current EXIM policy is valid from April 1, 2002 to March 31, 2007. Basic EXIM policy is established for five-year periods, but the details and targets are reviewed annually and any major changes are announced on March 31 of each year.

⁵⁵ The National Authority of CWC is the mechanism for coordinating and submitting annual declarations to the OPCW regarding the Indian chemical industry and inspections of Indian facilities.

⁵⁶ Civil penalties include fines as well as suspension or debarment from further imports and exports. Criminal penalties include imprisonment, fines, or both.

The new WMD Act was passed in May 2005. As per the mandate of UNSC resolution 1540 of April 2004, this Act criminalizes the possession of WMD by unauthorized individuals and entities. The provisions of the Act apply to “export, transfer, re-transfer, transit, and transshipment of material, equipment, or technology” [Section 3(5)] related to weapons of mass destruction—thereby closing some of the loopholes in existing laws and regulations that could be exploited by non-state actors and terrorists seeking weapons of mass destruction and related materials. This Act provides the enforcement agencies the legal bases necessary to prosecute individuals and business entities involved in any unauthorized activity relating to nuclear, chemical, biological, and missile technologies by providing clear definitions of such activities along with increased penalties.

India’s *Foreign Trade Policy 2004-2009* was officially announced on August 31, 2004. The preamble to this document explains its strategic rationale and its role in complementing the operations of the EXIM policy. “For India to become a major player in world trade, an all encompassing, comprehensive view needs to be taken for the overall development of the country’s foreign trade.... Thus, while incorporating the existing practice of enunciating an annual EXIM policy, it is necessary to go much beyond and take an integrated approach to the developmental requirements of India’s foreign trade. This is the context of the new Foreign Trade Policy.”⁵⁷

Detailed explication of the policy and procedures governing controls on imports and exports comes in four supplementary documents⁵⁸:

- i. *Export and Import Policy 1*, April 2002–March 31, 2007
- ii. *Handbook of Procedures*, Vol. I
- iii. *Handbook of Procedures*, Vol. II, *Standard Input-Output and Value Addition Norms*
- iv. ITC (HS),⁵⁹ *Classification of Export and Import Items*

Procedures for licensing and implementation, as well as the level of public information associated with EXIM policy, have improved vastly since 2001-02. All license applications are now submitted to the Directorate General of Foreign Trade (DGFT), an organ of the Ministry of Commerce, which issues export licenses for all exports. The only exception is nuclear and nuclear dual-use items, whose license applications are submitted to the DAE, which also issues the licenses for their exports. The documents detailing procedures for export and import licensing are available on the DGFT website. Exporters can now file applications and track the status of their applications online. During the review of individual license applications, the DGFT consults the relevant GOI agencies, such as the Department of Atomic Energy, the Ministry of Defense, the Ministry of External Affairs, and the Ministry of Chemicals and Fertilizers. However, as this report will show when it describes the bureaucratic process, only certain departments of these ministries are involved, and only in certain aspects or at certain stages of the license review process.

Most of the changes in EXIM regulations and the public accessibility of government operations in this area have arisen from the efforts of the GOI to make the export licensing policy more user-friendly—for Indian exporters and importers, for government officials who monitor imports and exports in a recordkeeping capacity, and for foreign trade partners who seek reassurances that items they sell to Indian firms will not be re-exported from India or diverted to other uses within the country.

⁵⁷ Directorate General of Foreign Trade, *Foreign Trade Policy 2004-2009*.

⁵⁸ All are publications of the Ministry of Commerce, Government of India.

⁵⁹ The ITC(HS) is the Indian Tariff Classification (Harmonized System), which assigns items a classification number and includes conditions that govern each item’s import and export.

II. Control Lists

Previous Indian control lists divided materials and technologies into three aggregate categories,⁶⁰ namely (1) nuclear minerals, (2) materials, and (3) other assorted defense-related technologies. In 1986, under the Environment Protection Act, India introduced detailed guidelines governing the manufacture, use, import, export, and storage of hazardous microorganisms and genetically engineered organisms or cells.⁶¹ After India signed the CWC in 1993, the government incorporated the CWC schedules of chemicals into a separate list of items that could not be exported at all or that could be exported only with a license.⁶² Successive efforts have helped New Delhi consolidate its control lists, move toward a detailed (eight-digit) classification of commodities, and make the system transparent to domestic and international industry.⁶³

The first attempt at consolidating dual-use items into one list for export control purposes resulted in a list dubbed Special Materials, Equipment, and Technology, or SMET, which was incorporated into EXIM policy in 1995.⁶⁴ This extensive listing in the ITC (HS) Classification of Export and Import Items was amended in 1998 and March 2000.⁶⁵ Additional minor amendments and additions culminated in the latest version, dated 2004-2009.

Sensitive items, and the conditions under which they can be exported, have now been consolidated on a list called SCOMET, or Special Chemicals, Organisms, Materials, Equipment and Technologies, which also lists the conditions under which export licenses will be granted for these items.⁶⁶ The SCOMET list is similar but not identical to the multilateral export control lists. Its dual-use commodity classification categories correspond closely to the EU and U.S. dual-use lists. (See Appendix A.)

As Table 1 indicates, Appendix 3 represents a significant reorganization and streamlining of the earlier control lists. Key revisions are enumerated below:

- Categories 0A and 0B include nuclear substances and equipment, updating an earlier notification⁶⁷ that modified the control lists significantly on the basis of recommendations from the DAE. The new way of categorizing items signals that proposed changes to the Atomic Energy Act of 1962 may be approved,⁶⁸ allowing even greater participation by the private sector—both domestic and foreign—in the Indian nuclear energy sector. Under SCOMET, clearance from DAE, in the form of a “no-objection certificate” (NOC), is required before any Indian entity, whether from the private or the public sector, can obtain a license to export certain nuclear substances or equipment.

⁶⁰ The controls on exports and imports were formerly regulated by three lists of items: “Prohibited” items that could not be exported or imported at all; “Restricted” items that required compulsory licenses; and “Canalised” items that could not be imported or exported by anyone except the designated public-sector enterprise(s).

⁶¹ Gazette notification of 1989.

⁶² Public Notice, March 31, 1993.

⁶³ See “Classification Code for Exports, Imports,” *Rediff*, May 16, 2003, <<http://www.rediff.com/money/2003/may/16code.htm>>. The government had first attempted to promote greater transparency for international experts and governments by disseminating “Briefing Notes” in February 1998. These were a compilation of all relevant laws and regulations regarding dual-use exports. Since then, a vast amount of information, including on EXIM policy changes and licensing decisions, has been made available in electronic form on the website of the Directorate General of Foreign Trade, <<http://dgft.delhi.nic.in/>>.

⁶⁴ It was promulgated in the *Export Import Policy* announced on March 31, 1995, effective April 1, 1995 (Public Notice 68 EXP (PN)/92-97). Source: Ministry of External Affairs, “India’s System of Controls over Exports of Strategic Goods and Technology,” August 2004, <<http://meaindia.nic.in/disarmament/01da02.htm>>.

⁶⁵ For instance, through Notification No. 5 (RE-2000)/1997-2002, dated March 31, 2000.

⁶⁶ This is listed as Schedule II, Appendix 3 of the ITC (HS). The latest version is dated 2004-2009.

⁶⁷ Atomic Energy Act Notification No. AEA/27/1/95, dated March 15, 1995. This amendment made more atomic minerals and related materials available for export via authorized GOI agencies and allowed select private-sector companies to engage in exports and imports of such materials.

⁶⁸ Interview with DAE officials, Mumbai, January 2001.

TABLE 1.

SCOMET Listing
(Special Chemicals, Organisms, Materials, Equipment and Technologies)

Category	Description	Requirement
Category 0	Nuclear materials, facilities and related equipment 0A001 to 0A012 — Prescribed substances 0B001 to 0B009 — Prescribed equipment	DAE clearance for export license
Category 1	Toxic chemical agents and other chemicals 1A1 to 1A12 — Prohibited chemicals [Schedule I] 1B1 to 1B14 — Permitted only to states party to CWC [Schedule II]* 1C1 to 1C17 — Restricted to states not party to CWC and [Schedule III]** permitted to states party to CWC under the specified requirement	*Export license not required but exporter has to submit end-use certificate within 30 days of actual export plus submit a Bill of Entry within 30 days of delivery ** Export license required plus exporter has to submit a Bill of Entry within 30 days of delivery
Category 2	Microorganisms, toxins (natural, enhanced, modified) either as isolated live cultures or as living or non-living material (inoculated or contaminated) 2A001 to 2A028 — Bacteria 2B001 to 2B005 — Fungi 2C001 to 2C016 — Parasites 2D001 to 2D053 — Viruses 2E001 to 2E004 — Rickettsials 2F001 to 2F017 — Toxins 2G001 to 2G024 — Plant Pathogens 2H001 to 2H002 — Genetically modified organisms	Export license required
Category 3	Special materials, materials processing equipment, and related technologies 3A001 to 3A010 — Special materials 3B001 to 3B014 — Materials processing equipment and related technologies 3C — Reserved 3D001 to 3D003 — Chemical and biomaterial manufacturing and handling equipment and facilities	Export license required
Category 4	Avionics and navigation	Export license required
Category 5	Aerospace materials, equipment, systems and related technologies 5A001 to 5A003 — Materials 5B001 to 5B005 — Equipment and systems 5C001 to 5C005 — Test equipment 5Da to 5Dg — Manned aircraft, aero-engines, related equipment and technologies 5Ea to 5Ec — Unmanned airborne vehicles and related equipment and components (specially designed or modified for military use) 5F — Microlight aircraft and powered 'hang-gliders'	Export license required
Category 6	Reserved	
Category 7	Electronics, computers, and information technology including information security 7A — Electronics 7B — Reserved 7C001 to 7C002 — Computers 7D001 to 7D002 — Information technology including information security 7E — Reserved	Export license required

Source: Summarized from Appendix 3, Schedule II of the ITC(HS) Classification of Export and Import Items, 2004-2009, Directorate General of Foreign Trade, Ministry of Commerce and Industry, Government of India.

- Categories 1, 2, and 3 represent items formerly regulated under notifications that brought India's domestic lists into compliance with CWC requirements.⁶⁹
- Categories 4 and 5 represent items that were formerly referred to as "special materials, equipment and technologies," the "export of which shall be permitted against a license on this behalf."⁷⁰ These two categories include materials such as maraging steel, composite structures, rocket propellants, metal fuels, pulsed electron accelerators, guidance systems, and a host of technologies that are clearly associated with the production and guidance of rockets, satellites, missiles, remotely piloted vehicles, and combat aircraft.
- Category 7 indicates India's growing interest in regulating its information-technology sector, including encryption and computers.
- The persistence of gaps in the listings, namely lines "reserved" for future entries under Categories 3C, 6, 7B, and 7E, indicates that the list system is undergoing further review, and that more items are likely to be added to the category of restricted goods and technologies. Category 6 is understood to have been reserved for "Munitions List" items. The task of compiling a detailed list of additional items for these categories, along with technical specifications for these items, is currently underway.⁷¹
- Most of the recent regulations regarding export controls are designed to harmonize the Indian system with EU standards. Indian officials have judged U.S. standards too complex and too comprehensive for India's use, in light of the size and characteristics of the Indian system.

India's current EXIM policy permits free exports of certain listed military stores that are low-tech in nature.⁷² All other military stores require a no-objection certificate from the Department of Defense Production and Supplies (DDP&S), an arm of the Ministry of Defense.⁷³ The NOC in turn is issued based on interagency consultations and end-user assessments.⁷⁴ Licensing decisions must conform to the government's foreign-policy objectives and take into account any applicable UN sanctions. The policy, for example, forbids exports of defense stores to any rebel group battling an established government and to any group which has terrorist connections or affiliations.

III. Catch-all Principle

Thus far the Indian government has not formally instituted a catch-all requirement in any public document. Nevertheless, exporters are informally "expected" to inform government officials about export inquiries originating from "countries of concern," regardless of whether such inquiries concern sensitive items.⁷⁵ Representatives of the chemical industry indicated that in most cases they do not even respond to queries from these countries, but that they keep such letters on file. This, they reported, was standard practice even before they began establishing collaborative ties with Western companies.⁷⁶ More significantly, the 2005 WMD Act establishes that an individual will be

⁶⁹ Public Notice No. 16-ETC (PN)/92-97, dated March 31, 1993, incorporated Schedule 1 of the CWC, adding these chemicals to the prohibited list. Public Notice No. 17-ETC (PN)/92-97, March 31, 1993, incorporated Schedules 2 and 3 of the CWC, adding these to the restricted list.

⁷⁰ As per Public Notice No. 68, dated March 31, 1995.

⁷¹ Authors' interviews with officials of the MEA and DRDO suggest that this process began in 2002, and will be completed by early 2005.

⁷² This list is specified in Appendix 1 to Schedule II of the ITC(HS) Classifications of Export and Import Items, 2002-2007.

⁷³ Information on military exports in this paragraph is from Ministry of External Affairs, "India's System of Controls over Exports of Strategic Goods and Technology."

⁷⁴ The end-user certificate might also include a no-transfer clause with regard to third parties inside or outside the recipient country.

⁷⁵ Interviews with various officials of the DGFT and MEA confirmed that they do maintain an internal blacklist of countries and entities, and that they have conveyed the same in their official dialogues with select countries, including the United States. The officials refer to this list while adjudicating license applications, but are not prepared to release the list or any information about it in the public domain. Industry representatives indicated that the list of suspect states includes Iraq, Libya, North Korea, Saudi Arabia, and some others in the Middle East.

⁷⁶ Interviews at GMM Pfandlner Inc., Mumbai, January 2001. Supporting evidence through internal office memo regarding internal compliance procedures.

deemed in violation of its provisions if he or she “knowingly facilitates” prohibited WMD-related activity and exports an item “knowing that the item is intended to be used” in WMD [Sections 12 and 13]. This increased liability on the individual clearly suggests that the intent of the catch-all section (although not the section itself) has been inserted into the regulations, and into the implementation of India’s controls over WMD-relevant strategic exports.

Discussions with officials and business leaders suggest that the catch-all principle remains unpopular in India, for several reasons. First, India has often accused foreign companies of using the catch-all principle as a cover for industrial or strategic espionage. Officials recounted numerous instances when information supplied in good faith by Indian entities had been used to identify existing foreign suppliers and project technology requirements. The United States and its allies then applied pressure on those suppliers to terminate their contracts with Indian companies or entities and to enter the technologies involved in the transaction on the lists of items proscribed by the “technology denial regimes.”⁷⁷ Convincing officials and entrepreneurs to embrace this export control principle—rather than abide by it grudgingly—will clearly require overcoming the strong negative connotations associated with it.

Second, and closely related, some Indian officials believe that the developed countries have used catch-all as an arbitrary and punitive measure rather than as a legitimate nonproliferation measure. They point to numerous instances when exports of basic scientific equipment, with specifications common in the civilian sector (e.g., magnetic resonance imaging equipment or Geiger counters), were denied to Indian nuclear labs because Western officials deemed these items to be controlled under catch-all provisions.⁷⁸ (It is perhaps worth noting that catch-all provisions apply pressure on Western officials to be overcautious when ruling on such matters.)

Third, the Indian government is keen to rapidly increase the nation’s exports and thus to help its exporters. Given the relatively small volume and value of India’s dual-use exports, officials and exporters alike contend that the catch-all requirement will impose a steep financial and logistical burden on Indian exporters. Such a burden, they maintain, would be particularly problematic now, when Indian companies are already operating at slim profit margins in an increasingly competitive market environment. The majority of Indian companies would likely be unable to invest the considerable resources required to conduct the pre-license spot visits and other checks associated with catch-all controls.

For now, consequently, both government and industry believe that government agencies should remain responsible for tracking developments in countries of concern. Even so, discharging this responsibility will be difficult for New Delhi, since introducing catch-alls at this stage would place greater demands on government agencies to apprise exporters of key developments on a regular and sustained basis. The drift of opinion among officials seems to be that mandating catch-all controls before the government can devise at least rudimentary means for communicating with industry about sensitive issues⁷⁹ would be premature and unwise. To offset these concerns, a leading industry association in India plans to join with the Center for International Trade and Security to organize outreach programs, schooling representatives of industry sectors that produce dual-use items about the details of catch-all controls.

Finally, some Indian officials believe that, given certain realities about the Indian regulatory system, catch-all requirements would swiftly metamorphose into a means for junior bureaucrats

⁷⁷ Off-the-record conversations between the authors and various senior Indian officials since 2000.

⁷⁸ One MOD official pointed out that the expansive definition of catch-all currently used by some Western states regarding India could conceivably include denial of service to BARC (Bhabha Atomic Research Center) scientists in Mumbai by the neighboring McDonald’s restaurant, since the food indirectly enables Indian nuclear scientists to continue their proliferation activities!

⁷⁹ Indian officials assert that catch-all can reasonably operate only on the basis of making national determinations about particular end-users, that such determinations are sensitive because of foreign-policy concerns, and thus that decisions cannot be made public. The example they usually cite is the existence of a blacklist of destinations (countries and companies) that the GOI maintains and uses in export licensing, but does not share with the public. Interviews with DRDO and MEA officials, New Delhi, January 2001 and August 2004.

to harass exporters, delay exports, or extort bribes.⁸⁰ Unless joined to a broader anticorruption campaign, maintain these officials, catch-all controls would make many problems worse.

All of this notwithstanding, two factors appear to have induced some changes to India's outlook on catch-all controls. First, in the much-publicized NEC case, when a multinational firm stood accused of supplying ingredients for missile fuel to Saddam Hussein's Iraq, NEC officials denied complicity in any illicit transfer. They claimed they had no information about the involvement of NEC end-users in the Iraqi WMD program; nor, they claimed, were they obligated to inform the GOI about any suspicions they may have had. Second, the need for India to adopt global "best practices" has emerged as a central issue in the ongoing U.S.-India official dialogue on export controls.

Accordingly, as a growing range of countries introduce catch-all controls to curb the proliferation of dual-use technologies, the GOI has introduced caveats to the EXIM guidelines that in effect expand SCOMET restrictions and make it explicit that these restrictions apply to all types of licenses for re-export or transshipment of sensitive dual-use materials. (See Appendix B: Recent Legislative and Procedural Amendments in Indian Dual-use Export Controls.)⁸¹ According to GOI experts, while these do not yet constitute catch-all controls as enacted in other supplier states, they nevertheless impose additional responsibility (and liability) on the exporter to ascertain the possible end-uses and end-users of an item before exporting it to a suspect entity.⁸²

IV. Intangibles, Deemed Exports, and Brokering

To further stimulate India's rapidly growing foreign trade, *EXIM Policy 2002-2007* revised the provisions governing the operation of warehousing facilities in India. Thus, public/private "customs bonded warehouses" may now be set up in the domestic tariff area by following the procedure outlined in Chapter IX of the Customs Act of 1962.⁸³ Imports, storage, clearance, and re-exports from these facilities are subject to the provisions of the Customs Act and to the rules, orders, notifications, or instructions issued to implement these provisions, meaning that the managers of such facilities will face the same restrictions as Indian exporters elsewhere when they handle items on the SCOMET list.⁸⁴

Foreign Trade Policy 2004-2009 provided for the development of "free trade and warehousing zones" (FTWZs) that could emerge as international trading hubs with world-class infrastructure and facilities. Accordingly, New Delhi will permit up to 100 percent foreign direct investment in the development and establishment of such zones. The FTWZs will be permitted to import and warehouse all goods duty-free, except for prohibited items, arms and ammunition, hazardous wastes, and SCOMET items. Re-exports of non-licensed items will be permitted without any restrictions. Exports of SCOMET items, however, will not be permitted except with permission from the Inter-Ministerial Working Group (IMWG).⁸⁵

Intangible technology transfers are now explicitly mentioned in India's EXIM policy, but the GOI stopped short of forbidding such transactions without a license. Instead, the regulation of

⁸⁰ Interview at the DGFT, New Delhi, January 2001.

⁸¹ A phrase has been inserted in six places in *EXIM Policy* and in four separate places in the *Handbook of Procedures*, Volume I. Each insertion clarifies that the main rule in each of those paragraphs is applicable "provided that the item is freely exportable without any conditionality/requirement of license/permission as may be required under ITC(HS) Schedule 2." Appendix 3 of Schedule 2 is the SCOMET list (sensitive dual-use items that require export licenses and end-user certification). Source: "Export Licensing System in India: SCOMET," presentation by the Indian delegation at the U.S. Department of Commerce, April 2003.

⁸² Interview with a Ministry of External Affairs official, August 2004.

⁸³ Directorate General of Foreign Trade, *Foreign Trade Policy 2004-2009*, Chapter 7A(iv) and (v).

⁸⁴ Directorate General of Foreign Trade, Ministry of Commerce, Government of India, *Export Import Policy 2002-2007*, Chapter 2, "General Provisions Regarding Exports and Imports," Paragraph 2.19, <<http://dgft.delhi.nic.in/>>.

⁸⁵ See Chapter 7A, Sections 5(i) and 5(ii) of *Foreign Trade Policy 2004-2009*, <<http://dgft.delhi.nic.in/>>.

intangible transfers remains limited to post facto periodic reporting.⁸⁶ On the other hand, the reporting requirement does apply to all exporting units located anywhere in India, including those located in special economic zones (SEZs) and those operating under the “100 percent export oriented unit” (EOU) scheme. The 2005 WMD Act takes this a step further and provides a more comprehensive definition of “technology,” incorporating intangible technology transfers by Indian citizens abroad and by foreign nationals studying or working in India [Section 4(L)]. It also establishes specific civil and criminal penalties for violations [Sections 14-19] and expands liability for WMD export control violations to *all* individuals involved in a particular business enterprise [Section 20].

The new WMD Act brings brokering and freight forwarding [Section 12] into the purview of punishable activities when they involve WMD-related items. Government sources acknowledge that the regulatory framework remains incomplete in this area. According to one official familiar with internal efforts to update India’s export control policy, “the technology component in SCOMET has not been defined comprehensively enough to include intangibles and the issue of brokering has to be appropriately incorporated into the subsidiary regulations. The FTDR Act will also have to be accordingly amended to include these.”⁸⁷

Similarly, regulations have not yet been framed to govern the movements of retired and active scientists working in government labs. Until recently, the Official Secrets Act of 1923 and the Central Civil Services (CCS) Conduct Rules of 1964, along with ministry-specific instructions on maintaining the security of communications, were considered sufficient to ensure an adequate security culture amongst government officials at various levels.⁸⁸ This has changed somewhat since a sensitive government investigation revealed that a former chairman and managing director of the Nuclear Corporation of India had taken up an assignment in Iran after he retired in July 2000, without seeking permission from the government.⁸⁹ According to one news report, “the government may henceforth make it mandatory for nuclear scientists to first seek approval for such assignments—and clear only exceptional cases.”⁹⁰

Deemed exports are defined in *Export and Import Policy, 1997-2002* as transactions in which the goods supplied do not leave the country and the supplier in India receives payment for the goods. That is, the goods supplied need not leave India to qualify as deemed exports. The issue of deemed exports, applied to sensitive technologies or controlled items, is not yet on the government’s export control agenda.⁹¹ At the same time, some Indian officials have cautioned that intangible technology transfers will take place if government scientists leave their jobs at sensitive facilities for assignments with multinational entities operating in India. As companies from the United States, Europe, and China lure scientific talent away from government labs, and as Indian firms recruit more foreign

⁸⁶ According to Paragraph 2.54 of *EXIM Policy 2002-2007*, Chapter 2, “All the exports made in non physical form by using communication links including high speed data communication links, internet, telephone line or any other channel which do not involve the Customs authorities have to be compulsorily reported on quarterly basis to the Electronic and Software Export Promotion Council.”

⁸⁷ R. Ramachandran, “For a Controls Regime,” *Frontline*, January 1-14, 2005, <<http://www.flonnet.com/fl2201/stories/20050114002404800.htm>>.

⁸⁸ Government departments and ministries in India routinely issue guidelines that define standard operating procedures for handling sensitive information and ensuring material, physical, and personnel security. Authors’ interviews with officials at the DAE and other government agencies in recent years suggest that random audits of personnel records (travel, financial, etc.) are rare: Investigations are almost always triggered by complaints or intelligence tips against particular individuals.

⁸⁹ The scientist in question worked on projects approved by the IAEA Board of Governors. For details see the earlier section of this report, “Political Commitment to Nonproliferation.”

⁹⁰ Jay Raina, “Top Indian N-expert Took Iran Assignment,” *Hindustan Times*, October 23, 2003. The scientist, Dr. Y. S. R. Prasad, is believed to have helped Iran build technical and physical infrastructure for its nuclear power plants. Even though he worked only on projects approved by the IAEA Board of Governors, and although he abided by the rules requiring government permission for travel to Iran, the case was a wake-up call for the government of India.

⁹¹ For a list of categories of goods included in this definition, see Mangalore Customs Website, <<http://mangalorecustoms.kar.nic.in/faq/faq-deemed.htm>>.

personnel to produce sensitive technologies, the government will take an increasingly activist stance, more rigorously regulating intangible technology transfers and deemed exports.

V. Transit and Transshipment

The 2005 WMD Act defines transit and transshipment activities in order to clarify liability of individuals and businesses if they facilitate unauthorized transactions involving WMD-related items [Section 13]. In recent years, a number of ports, airports, inland container depots (ICD), and container freight stations (CFS) with customs clearance facilities have been developed to reduce congestion at gateway seaports and airports. The Customs Act imposes a customs duty on all imported goods, and this duty has to be paid immediately after the goods land in India, unless they are meant for transit or transshipment. When goods are to be transported to another Indian seaport or airport, to an ICD or CFS, or to a port or airport abroad, the Customs Act allows duty-free transshipment.⁹² Therefore, all imported goods must be examined to verify that the description provided in the bill of entry is accurate.⁹³ Officers examine the bill of entry to ascertain the amount of customs duty owed, but they also check whether there are any restrictions or prohibitions on importation of the cargo. If so, they check whether any permission, license, or permit is required to authorize transit or transshipment, and whether these are attached to the consignment.

The procedure for transshipment of imported cargo is governed by Section 54 of the Customs Act and the Goods Imported (Conditions of Transshipment) Regulations of 1995. Transit and transshipment regulations essentially stipulate that goods may transit or be transshipped across Indian territory only under the conditions specified in import licenses and reflected in the bill of entry. The exact process for customs clearance depends upon factors such as the cargo's final destination and where it is unloaded and re-loaded.

For imported cargo unloaded at a port for transshipment to another port, an ICD, a CFS, or a port abroad: Shipping agents must obtain permission from customs officials at the port or airport at which goods are unloaded before transporting them to an Indian or foreign port or airport, or to an ICD or CFS within India. The customs agent scrutinizes the details furnished by the shipping agent in the application for transshipment. If the documents are in order and there is no alert notice against the shipping agent, then permission for transshipment is granted.

For transshipment of containers from a port in India to a port abroad: Shipping agents have to file a transshipment application with customs, along with relevant documents. A customs official scrutinizes the application and, if these are found to be in order, grants permission to transship the cargo. Once the transshipment permit has been issued, the goods are loaded onto the ship under customs supervision. The officer supervising the loading must acknowledge the loading of such cargo. The record is reconciled on the basis of an endorsement from this officer and a copy of the EGM (export general manifest) that shows the details of such transshipment.

For transshipment of imported cargo by air: The relevant regulation⁹⁴ in this case provides a procedure for moving export cargo (a) from an airport in India to another airport in India, (b) from an airport in India to an airport abroad, and (c) from an inland airport in India to an airport abroad through a gateway airport in India. Broadly speaking, cargo to be transshipped to any foreign destination must be separated out immediately after landing at an Indian airport and transferred to a special enclosure meant for storage of transshipment cargo by the concerned airline. Customs agents supervise the storage enclosure. Before any goods may be transshipped, a cargo transfer manifest must be presented in triplicate to customs officials. One copy is retained at the warehouse

⁹² The goods can be transshipped from one port or airport to another port, airport, ICD, or CFS, either by vessel, air, rail, or road, or by a combination of these modes of transportation.

⁹³ Part of the consignment is selected on a random basis for such an examination.

⁹⁴ CBEC Circular No.47/96-Cus., dated September 16, 1996, establishes this procedure.

maintained by the airline. The remaining two copies, along with the cargo, are handed over to the carrier, which transports the goods to the specified foreign destination. A customs official supervises the loading of cargo onto the aircraft, makes a suitable endorsement on the bill of transshipment, and sends a copy back to the airline's warehouse.

In sum, if an item has been imported into India for the purpose of transit, transshipment, or re-export, Indian customs regulations spell out detailed procedures depending upon the mode of transport, the intermediate destination in India, and the ultimate destination abroad. In all cases, the basic assumption is that the information on the import license and the bill of entry reflects the exact conditions under which the import has been allowed.

The existing Indian regulations and procedures regarding transit and transshipment are fairly detailed, extensive, and well established. However, three main shortcomings linger from an export control perspective. First, customs inspections (of documents and cargo) continue to focus primarily on revenue collection. The procedures do not instruct customs officials to check for proliferation-relevant mislabeling or incorrect documentation. Second, concerns are growing worldwide (and in India) about the likelihood of terrorist incidents carried out via import or transit of explosives and hazardous substances.⁹⁵ Yet customs regulations do not reflect these concerns, either in the training for customs agents or in the procedures that trigger closer scrutiny of inbound or outbound cargo. Finally, a broad interpretation of transit and transshipment regulations *implicitly* suggests that if the import license lists a particular cargo item as export controlled under SCOMET, its transshipment and re-export will be regulated in the same manner as all other SCOMET items, meaning that it will require an export license from the DGFT. This linkage needs to be made explicit rather than left to subjective interpretation and possible legal challenge. These additional requirements and directives would induce customs officials to pay closer attention to documentation, match the paper description of the equipment to the actual equipment, and look for forgeries in the shipping documents.

LICENSING

I. Bureaucratic Process

As explained in the previous section, dual-use items are grouped under the Special Chemicals, Organisms, Materials, Equipment, and Technologies list, as specified in Schedule II, Appendix 3 of ITC (HS). As per the FTDR, the Directorate General of Foreign Trade, under the Ministry of Commerce, receives all license applications, coordinates the review process, and communicates the final decision to the exporter.

The exporter submits the license application to the DGFT along with the following documents⁹⁶:

- Import Export Code (IEC number)
- Export Order
- End User Certificate⁹⁷
- Registration Cum Membership Certificate (RCMC)⁹⁸

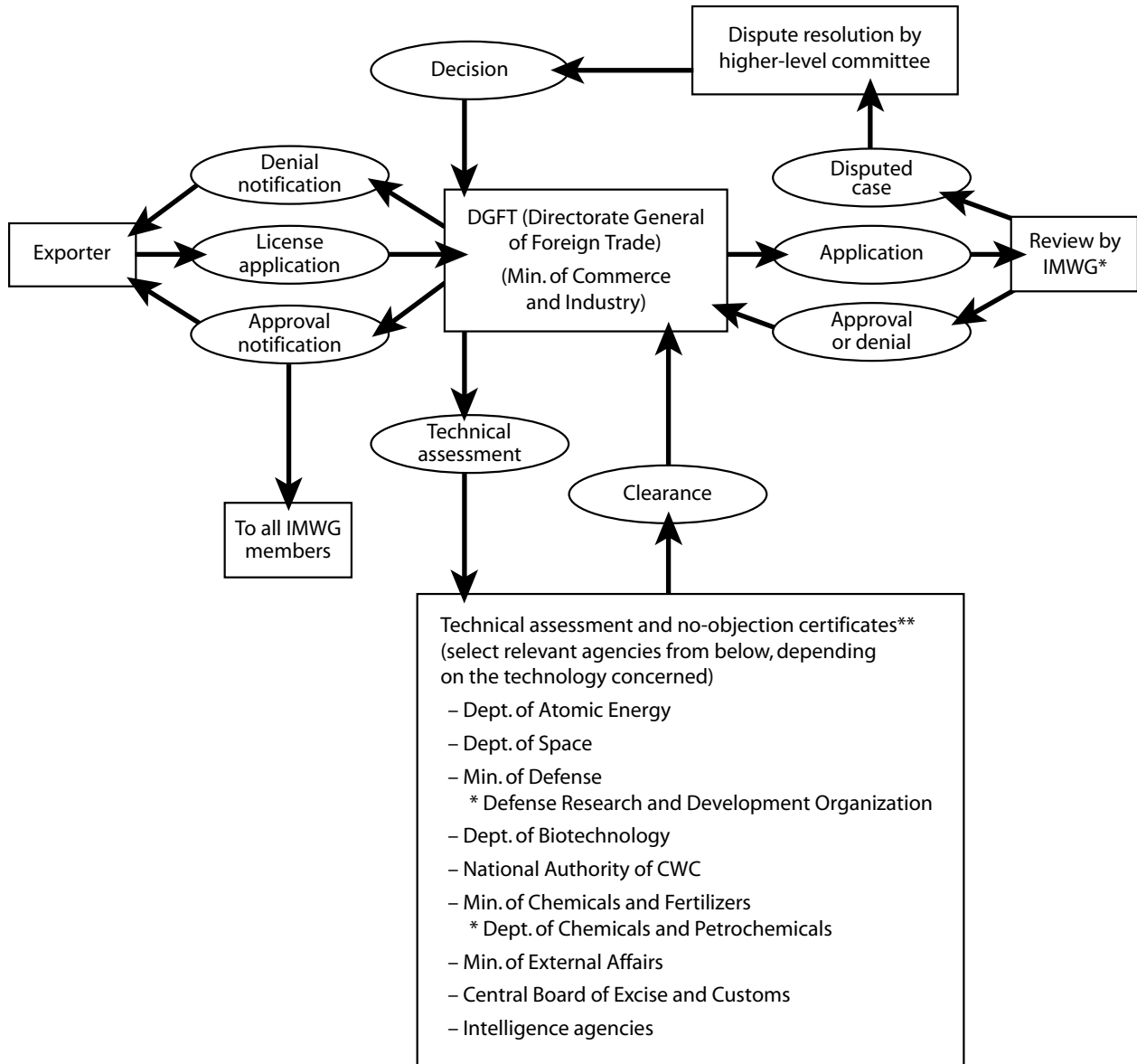
⁹⁵ This possibility was discussed in the media after a series of incidents in the fall of 2004, when consignments of iron and steel scrap, imported from Iraq and elsewhere, exploded while being offloaded, causing deaths and injuries. The scrap was found to have contained live rockets and missiles. Several changes were made in customs procedures immediately after this, but some concerns remain. See the series of reports by Ehtasham Khan, "Is Business Above National Security?" *Rediff Special*, November 1, 2004; URL <<http://www.rediff.com/news/2004/nov/01spec.htm>>.

⁹⁶ "Export Licensing System in India: SCOMET," presentation by the Indian delegation at U.S. Department of Commerce, April 2003.

⁹⁷ As of July 2004, this certificate is now a part of the application form itself, and as such, must be completed and submitted by any exporter that intends to export an item on the SCOMET list.

⁹⁸ It is mandatory for all entities to register with the DGFT to become eligible to export items from India. The DGFT issues the RCMC certificate after an exporter is registered with the DGFT.

FIGURE 1. Dual-use Export Licensing Process in India



*Note: *IMWG is the Inter-Ministerial Working Group, composed of a core group which includes representatives from the Ministry of External Affairs, DGFT, DRDO, DAE, Department of Space, Department of Customs, and National Authority of CWC. Representatives from other technical departments, such as the Departments of Science and Technology or Electronics, are invited or their input is requested when necessary.*

***The Departments of Atomic Energy, Space, and Biotechnology are autonomous departments, unlike others that are under specific ministries.*

It should be noted that, in April 2005, the DGFT consolidated the license application and supporting documents into a combined form called the “Aayaat-Niryaat Form” (i.e., Import-Export Form). This document has to be completed and submitted online by the prospective exporter, and the form is available on the DGFT website.

The DGFT shares the relevant application material with one or more of the technical agencies to secure a no-objection certificate. If the NOC is not granted, the license process is abandoned and the DGFT conveys the denial to the exporter. On the other hand, if the NOC is granted, the DGFT forwards the application to the Inter-Ministerial Working Group for review. The decision of the IMWG is conveyed to the DGFT, which in turn notifies the exporter.

If the IMWG approves the application, the DGFT grants the license to the exporter and simultaneously notifies all members of the IMWG, the relevant port-office of the DGFT, and the Department of Customs. The average time taken for such decisions is 30 days.⁹⁹ In the event that the IMWG is unable to agree on a licensing decision, a possibility in cases that involve significant foreign-policy or nonproliferation issues, the matter is referred to a “higher-level committee” for resolution. That decision, in turn, is communicated by the DGFT to the exporter. (See Figure 1.)

Applications regarding Category 0 items on SCOMET (“atomic materials and equipment”) are processed differently from all the other SCOMET categories. Applications for Category 0 items are submitted by the exporter directly to the DAE, which issues the NOC and the export license based on its review of the exporter’s track record and of the end-user information supplied by the exporter.

The DGFT uses four criteria to evaluate license applications:

- i. The details provided by the exporter about the end-use and end-user for the product¹⁰⁰
- ii. The exporter profile blacklist maintained by the DGFT
- iii. The destination country profile
- iv. The classification of the item

The technical agencies involved in granting the NOC are listed in Figure 1. The DGFT consults with one or more of these agencies, depending on the nature of the item to be exported.¹⁰¹ Thus, applications concerning chemical and biological items, i.e., those covered under Categories 1, 2, and 3, are reviewed by the Department of Chemicals and Fertilizers, as well as by the National Command Authority for CWC Implementation. Applications regarding Category 4 (“avionics and navigation”) and Category 5 (“aerospace materials, equipment, systems, and related technologies”) are sent to DRDO, while those regarding Category 7 (“electronics, computers, and information technology, including information security”) are sent to both DRDO and the Department of Electronics. The Department of Science and Technology and the Department of Industrial Policy and Promotion (Technical), which is under the Ministry of Commerce and Industry, are also consulted from time to time.¹⁰²

According to the FTDR, the DGFT “may take the assistance and advice of a ‘facilitation committee,’ which consists of ‘representatives of technical authorities and Departments and

⁹⁹ “Automated Licensing Exchange,” DGFT presentation at an Indo-U.S. Workshop, Washington, DC, November 2004.

¹⁰⁰ The mandatory end-use and end-user certificate is now a part of Form 16-A, the official license application form for SCOMET items. The new format for end-use and end-user certification was revised in 2004 to seek “information in more clear terms.” Source: “Automated Licensing Exchange,” DGFT presentation at the Indo-U.S. Workshop, Washington, DC, November 2004.

¹⁰¹ One DAE official mentioned that the track record or past performance of applicants is a crucial factor in DAE permission, and that a database of prospective applicants’ activities had been developed since the passage of the 1995 Notification, which made such trade possible for a larger number of actors. Phone conversation with the author, October 15, 1997.

¹⁰² These two departments are especially important in regulating imports from the United States under the Indo-U.S. Memorandum of Understanding. They, along with DRDO and the Embassy of India in Washington, DC, are designated as the Import Certificate Issuing Authority (ICIA).

Ministries concerned.”¹⁰³ The Inter-Ministerial Working Group performs this facilitation task. The IMWG is headed by a DGFT export commissioner and considers applications for permission to export SCOMET items. The group makes decisions on the basis of guidelines issued from time to time. It meets at least quarterly. It consists of a core group of representatives from the Ministry of External Affairs (MEA), the DGFT, DRDO, the Department of Atomic Energy, the Department of Space, the Department of Customs, and the National Authority of CWC. Representatives from other technical departments, such as the Department of Science and Technology and the Department of Electronics, are invited or their input sought when necessary.¹⁰⁴ Export licenses involving trade with “countries of concern”¹⁰⁵ receive special scrutiny from MEA and the intelligence agencies.

The IMWG has working-level representation (deputy secretary or lower) from the various ministries, in the form of officials with policy-level clearance. The Disarmament and International Security Affairs Division (D&ISA) is the main division of MEA involved in the IMWG. However, the regional divisions of MEA, e.g., the divisions that specialize in the Americas or Europe, are routinely informed by D&ISA if an export license is issued for a destination within their jurisdictions. If required, D&ISA also coordinates with appropriate GOI missions (embassies or consulates abroad) to ensure that pre-license checks are carried out for the declared destination of an export. The results of the pre-license check, along with the reasons if the license application is turned down, are then shared with the associated regional division. The intelligence agencies usually have the last word on approval or denial of a license: The other IMWG members habitually defer to intelligence assessments about the antecedents or bona fides of the end-user.

In case the IMWG members are unable to reach consensus on a particular case, the matter is forwarded to a higher-level committee, chaired by the director general of the DGFT, for dispute resolution.¹⁰⁶ This committee has policy-level representation from the core agencies (MEA, DAE, DRDO, DGFT), i.e., officials at the rank of joint secretary or above. It meets whenever there is a need to review or establish policy-level procedures, and not necessarily to decide on particular export licenses.¹⁰⁷ This committee has met more frequently since 2003 as the government has added detail to the SCOMET list, set the parameters for bilateral interaction with U.S. agencies, and reassessed the export control licensing process.

II. Licensing Implementation

The GOI’s licensing process is adequately defined and involves all the technically relevant agencies. Given that India’s exports of dual-use technologies are growing, and that very few unauthorized exports from India have occurred, one can reasonably infer that the licensing process is being implemented as defined by the regulations. Moreover, Indian officials have indicated that the various agencies involved in the process are functionally better integrated than before. These agencies coordinate their licensing activities formally through the licensing process (in the IMWG and in the higher-level committee), as well as informally through exchanges of information about suspect end-uses and end-users. The informal communication is limited to a small group of officials working across agencies (and sometimes across continents, if they are stationed abroad). These officials have decades of experience in license review, have often led Indian missions or delegations at the international level, and routinely keep abreast of international export control developments. In effect, they constitute an additional tier of oversight to ensure adequate implementation of

¹⁰³ Directorate General of Foreign Trade, *EXIM Policy 2002-2007*, Chapter 2, “General Provisions Regarding Exports and Imports,” Paragraph 2.37.

¹⁰⁴ Telephone conversation with an official from the Ministry of External Affairs, January 2005.

¹⁰⁵ GOI officials have reiterated in various interviews that, while there is an internal list of “countries of concern,” it is a matter of policy not to share this in the public domain.

¹⁰⁶ “Export Licensing System in India: SCOMET,” presentation by the Indian delegation at U.S. Department of Commerce, April 2003.

¹⁰⁷ Telephone conversation between the authors and an official from the Ministry of External Affairs, January 2005.

strategic trade controls within the Indian system. However, the risk that the system will become overburdened by the growing number of exporters and the growing volume of dual-use exports does highlight the need for the GOI to substantially increase the resources devoted to handling licensing responsibilities.

III. Challenges

The major challenges to rigorous assessment of the licensing process are the lack of systematic data about the numbers and types of export licenses processed and the number of approvals and denials. Thus far, India has not made it a practice to release data that would help outsiders assess the current capacity of the licensing process or to evaluate its adequacy for the future, when the volume of sensitive tangible and intangible exports from India is likely to grow rapidly.

The experiences of other exporting countries suggest that officials and company representatives often discuss license applications before the applications are filed, and that the government informally denies applications that stand no chance of being approved. Informal denials are not included in the data on licenses processed. The GOI should consider releasing aggregate data about such denials in order to allow external observers to assess whether the Indian system is succeeding in its missions of identifying bad end-users and end-uses, filtering out forbidden exports, and handling the increasing number of export queries and license applications.

Scrutiny of the interagency process on export licensing in several countries typically reveals turf battles, overlapping jurisdictions, or cross-agency disagreements stemming from differing export-related perspectives (i.e., trade promotion versus export controls). By contrast, most descriptions of the internal dynamics of the Indian licensing process reveal a striking absence of similar struggles. This apparent harmony generates external skepticism rather than unreserved confidence in the Indian system. This skepticism is further exacerbated by occasional claims from Indian officials that the process is flawless—claims that imply that proliferation from India is impossible. Indian officials might consider publishing aggregate data on denials or approvals under special conditions in order to substantiate their claims. Disclosure would present a more textured picture of the factors that influence Indian dual-use licensing decisions.

ENFORCEMENT

I. Customs Authority

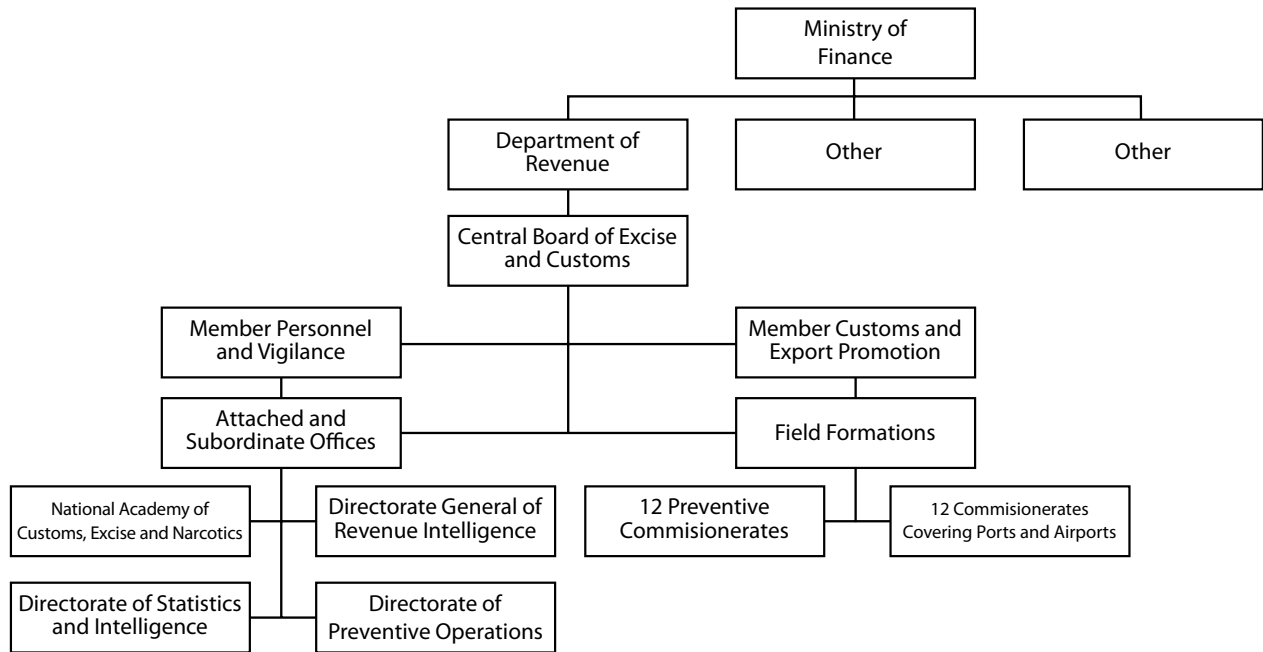
Implementation and enforcement of export laws fall primarily within the jurisdiction of the Central Board of Excise and Customs (CBEC) and its subordinate body, the Directorate General of Revenue Intelligence (DGRI), an organ of the Ministry of Finance. In addition, designated officials from the DGFT enjoy the authority to enter any suspect premises and inspect and seize materials proscribed by the FTDR.¹⁰⁸

Both CBEC and DGRI derive their statutory and prosecutorial authority from the Conservation of Foreign Exchange and Prohibition of Smuggling Activities (COFEPOSA) Act of 1974.¹⁰⁹ The Act empowers CBEC to formulate policy regarding the “levy and collection of Customs and Central Excise duties, prevention of smuggling, and administration of matters relating to Customs, Central Excise and Narcotics (i.e. those under CBEC purview).”¹¹⁰ (See Figure 2 for Department of Customs organizational chart.)

¹⁰⁸ These include the Director General (DG), Additional DG, Joint DG, Deputy DG, Assistant DG, and Controller of Imports and Exports.

¹⁰⁹ COFEPOSA was passed to authorize preventive detention for the purposes of conserving and augmenting foreign exchange and preventing smuggling activities, so as to disrupt the activities or plans of persons engaged in these operations. The Act has been placed in the Ninth Schedule of the Constitution, which means that any action taken under it cannot be challenged on grounds that it infringes on fundamental rights. For more, see IndiaInfo.com Website, <<http://law.indiainfo.com/foreign-exchange/cofeposa.html>>.

¹¹⁰ Ministry of Finance, Government of India Website, <http://finmin.nic.in/the_ministry/dept_revenue/cbec/index.html>.

FIGURE 2. Organization Chart of Indian Customs Department and Its Offices

DGRI is the top intelligence organization in the area of export control, responsible for “study and dissemination of intelligence against smuggling...targeting of intelligence against (smugglers), liaison with intelligence and enforcement agencies in India and abroad for collection of intelligence, and in-depth investigation of important cases having inter-collectorate and international ramifications.”¹¹¹

Customs officials inspect the following documents before clearing an item to leave Indian territory for export purposes¹¹²:

- i. Export and import license
- ii. The bill of entry, the shipping bill, or an equivalent “document prescribed under the Customs Act 1962” (This document must contain the IEC issued by the designated offices of the DGFT.)

The officials are authorized to confiscate all “goods, documents, things, and conveyance” that they deem to be evidence of a violation. The shipping bill, the standard document that an exporter submits to customs officials, includes the following information:

- i. Name and address of the exporter
- ii. Name and address of the foreign buyer(s)
- iii. Quantity and description of the goods, FOB (free on board) value, etc.

¹¹¹ Functions of the Directorates General, Directorates, and Commissionerates are available at Central Board of Excise and Customs, Government of India Website, <<http://www.cbec.gov.in/cae/whoware/fns-subord-offices-1.htm>>.

¹¹² The end-use or end-user verification document is part of the license application to the DGFT.

Additional documents accompanying the shipping bill include:

- i. Invoice
- ii. Purchase order or contract
- iii. GR form or SDF form¹¹³
- iv. Export license, if the goods fall on the list of restricted exports
- v. Exporter's declaration verifying the accuracy of the stated value of the goods (as per Section 50 of the Customs Act of 1962)

A clerk at CBEC assigns a serial number to the shipping bill, along with the date of assignment. An appraiser or superintendent further scrutinizes the shipping bill before submitting it to the assistant or deputy commissioner, who verifies all information before affixing his or her signature to the shipping bill.¹¹⁴

The EC/EDI (Electronic Commerce/Electronic Data Interchange) System was introduced in India in February 1998, enabling all documents relating to exports and imports to be processed online. Originally designed as a secure intranet platform for real-time communication between DGFT and customs officials, EC/EDI has been expanded to play a larger role in streamlining the license application, evaluation, and enforcement processes.

This project of the Ministry of Commerce was designed "to provide a system wherein trade documents especially related to import/export require single submission to any of regulating/facilitating agencies; where all community partners for electronic document exchange are inter-networked; and electronic document filing/exchange facility is available for importers/exporters/agents/shipping lines via every regulating/facilitating agency."¹¹⁵

Under this initiative, the Customs Department has set up a website called ICEGATE (Indian Customs and Excise Gateway) where exporters and importers can register themselves, authenticate digital signatures, file shipping bills and bills of entry, and track their submissions electronically.¹¹⁶ The site also allows exporters and importers to get help from customs officials and to gain access to documents that explain customs filing procedures and the system's requirements for filing electronically. Airlines and shipping agents can file manifests on the Internet using this facility.

Besides this, the website allows data to flow between customs and the various regulatory and licensing agencies.¹¹⁷ The National Import Data Base (NIDB) is also serviced through ICEGATE. All electronic documents and messages handled through ICEGATE are processed at the customs end by the Indian Customs EDI System (ICES). ICES is now operational at 23 major customs locations, which handle nearly 75 percent of India's international trade in terms of import and export consignments. ICES is a software package that supports two functions:

- i. Internal automation of customhouses for a comprehensive, paperless, fully automated customs clearance system that makes the clearance process transparent
- ii. Online, real-time electronic interface between the trade, transport, and regulatory agencies concerned with customs clearance of import and export cargo

¹¹³ As per the Foreign Exchange Regulation Rules, 1974, every exporter is required to declare the goods to be exported on a form called the exchange control declaration (GR) form. Since 1999, some customs offices have been authorized to process specified categories of shipping bills electronically. In that case, exporters have to submit a statutory declaration form instead of the GR form. Source: Foreign Exchange Management Act, A.D. (M.A. Series) Circular No. 4, Export Declaration Forms, February 2, 1999, Reserve Bank of India Website, <<http://www.rbi.org.in/index.dll/8405?OpenECMStory?s1secid=1&s2secid=0>>.

¹¹⁴ "Procedures for Exports from India," Mangalore Customs Website, <<http://mangalorecustoms.kar.nic.in/faq/faq-exports.htm>>.

¹¹⁵ EC/EDI Project Website, <http://etrade.nic.in/n_project.htm>.

¹¹⁶ Indian Customs and Excise Gateway Website, <<http://www.icegate.gov.in/ICES.html>>.

¹¹⁷ These include the DGFT, the Directorate General of Commercial Intelligence Services, the Directorate General of Revenue Intelligence, the Reserve Bank of India, the Directorate of Valuation, the CBEC Headquarters in the North Block (New Delhi), and the National Informatics Center Headquarters.

ICES comprises two major subsystems, namely ICES/I for processing import documents and ICES/E for processing export documents.¹¹⁸ This automated system has considerably improved the quality and efficiency of the customhouses, at once facilitating trade and reducing the scope for and probability of unauthorized exports. Bills of entry and shipping bills can be submitted using the remote EDI system (RES). Exporters who do not have access to networked computers can bring their documents to designated service centers set up by the Customs Department for entering bills of entry and shipping bills into the computer system, and for submitting these documents to customs for further processing. Once the documents are submitted to customs, either through the remote EDI system or through a service center, they move electronically from one officer to another. The ICES initiative has transformed the customhouse into a paperless office.

At present all types of bills of entry are processed on the EDI system.¹¹⁹ Since September 2000, all shipping bills have also been processed on this system. The EDI has sharply limited physical contact between customs officials and importers and their agents, reducing clearance and processing times for both sides.¹²⁰

Another significant technical innovation is the Customs Department's computerized system for risk assessment and management. This system receives assessments from exporters and importers about the customs and excise duties payable for their items, and about the potential unauthorized end-uses of the items to be traded. Introduced by Delhi Customs at the Tuglakabad inland container depot, the main port of commercial entry for north India, in 2003, the system has cut down the time for cargo clearance by one-third. The new system reduces the human interface in customs assessment to a minimum, allowing the bulk of the cargo to be cleared through the "green channel." This helps importers and exporters save time and money, while simultaneously reducing the scope for corruption by customs officials.¹²¹

The risk-management system incorporates inputs from the Customs Department with respect to the 11,639 items covered under India's recently introduced eight-digit customs classification system. Both customs officials and industry representatives have reviewed this state-of-the-art system favorably. Accordingly, it will likely be introduced at all major ports of entry into India in the near future.

On March 23, 2005, the Indian parliament passed the Central Excise Tariff (Amendments) Bill. The bill mandates a common classification code for both customs and central excise, in line with the code followed by the DGFT and the Directorate General of Commercial Intelligence and Statistics. It promises to eliminate problems arising from the divergence between the existing commodity classifications. The new code is identical to the internationally accepted eight-digit classification, and the Department of Customs had already adopted it.¹²² It is expected to boost India's trade by simplifying statistical recordkeeping, facilitating electronic data processing, and greatly reducing the processing time for importers and exporters.¹²³

¹¹⁸ The source for some of the information on ICES is Tuticorin Customs Website, <http://www.tuticorincustoms.org/html/over_view.html>.

¹¹⁹ Currently, the following categories are exempt from EDI processing: diplomatic goods, unaccompanied baggage, import of goods under export-related schemes, e.g., 100 Percent EOUs, EPCG Scheme, EPZ, STP, EHTP, Duty Exemption Pass Book Scheme, and DEEC Duty Exemption Certificate, and imports for research purposes. Source: Bangalore Customs Website, <http://nitpu3.kar.nic.in/blrcustoms/Index_edi.htm>.

¹²⁰ For instance, at Bangalore Customs, processing of a shipping bill on the EDI system takes approximately 20 minutes, while processing a bill of entry takes 10 minutes. Source: Bangalore Customs Website, <http://nitpu3.kar.nic.in/blrcustoms/Index_edi.htm>.

¹²¹ G. Ganapathy Subramaniam, "Export Import Will Now Have Self-assessment System: Customs Finds New 'Solution' for Faster Cargo Clearance," *Economic Times*, June 6, 2003, <<http://www.agltechno.com/economic.htm>>.

¹²² "Classification Code for Exports, Imports," *Business Standard, Rediff*, May 16, 2004, <<http://www.rediff.com/money/2003/may/16code.htm>>.

¹²³ "Common 8-Digit Excise Code Soon," *Economic Times*, July 1, 2004, <<http://bsnl.in/business.asp?intNewsId=37415&strDisplayStyle=block&intDaysBefore=4>>.

Industry representatives have found the newer systems beneficial because they reduce corruption in the Customs Department. However, they also point out that corruption has historically been limited to the clearance of imports, not exports. In a typical case, a customs official demands a bribe to release a consignment of imported goods. Recent reports from the Office of the Comptroller and Auditor General (CAG) have borne out the complaints heard from industry. Reports have highlighted instances when customs officials undervalued imports to the benefit of a particular importer or misclassified duty exemptions on imported goods, reducing import revenue collection.¹²⁴ No customs official has ever been accused of clearing sensitive technologies without proper authorization, although the NEC case showed that some officials do not review customs documents adequately.¹²⁵ Customs procedures have been amended recently to close the loopholes that may have existed in the absence of a catch-all clause in the Customs Act. (See Appendix C: Recent Changes in Indian Customs Act of 1962.)

II. Training

In many countries, including the United States, licensing officials learn about export controls on the job. Customs services in these countries offer no training specifically designed to inculcate an appreciation of the challenges posed by export controls and related issues. Indian customs officials, by contrast, have long been required to undergo comprehensive training regarding chemicals and narcotics. They must pass several rigorous intradepartmental examinations, spread over a period of up to three years. To cope with the realities of a significant and sprawling chemical industry in the public and private sectors, and of a large and growing volume of chemical exports, the GOI has deployed a mature program to train the relevant enforcement personnel. Until the 1990s, when the government exclusively controlled all nuclear trade, there was no special training for customs officials on nuclear-relevant export controls. In recent years, however, DAE has taken steps to sensitize customs officials and industry to the possibility of illicit nuclear and nuclear-related trade. DAE scientists reportedly offer training courses for inspectors at most of the country's 22 ports, though the program remains in its initial stages.¹²⁶

Proactive thinking is evident within the GOI on WMD-related issues ranging from nuclear safety to nonproliferation to consequence management. First, the Atomic Energy Regulatory Board (AERB), established in 1983 under the Atomic Energy Act of 1962, is responsible for enforcing the regulatory and safety functions envisaged under the relevant sections of the Atomic Energy Act. Although its main responsibility is to ensure the safety of nuclear research and power installations and their personnel, the AERB has over time extended its training and outreach to scientists working throughout India's nuclear sector. Second, the AERB has expanded its cooperative dialogue with the IAEA and other agencies abroad. For instance, from December 9-13, 2002, the AERB organized and hosted an IAEA workshop that examined the security of nuclear power plants from external threats. On January 15, 2003, AERB officials signed an agreement with their counterparts from Russia's Federal Nuclear and Radiation Safety Authority pertaining to safety regulations in the civilian nuclear sphere.¹²⁷

Nor have other GOI agencies been idle. In May 2003, the DAE and the IAEA co-hosted a workshop in Mumbai, India to promote awareness of international best practices regarding security culture in nuclear installations. The workshop participants included nuclear scientists from various Indian facilities, as well as representatives from ten Asian countries—signifying the DAE's interest

¹²⁴ The 2001-02 audit of the Customs Department by the Comptroller and Auditor General of India is available at Comptroller and Auditor General Website, <http://cag.nic.in/reports/union/rep2003/2003_indirect%20tax_10/overview.pdf>.

¹²⁵ The UN documents submitted by NEC, which apparently authorized exports of household chemicals to Saddam Hussein's Iraq, turned out to be forgeries, as were the declarations that the exported chemicals were not covered by SCOMET.

¹²⁶ Interview with DAE officials, Mumbai, August 2004.

¹²⁷ For details, see *Annual Report 2002-2003*, Atomic Energy Regulatory Board, Mumbai, <<http://www.aerb.gov.in>>.

in greater domestic and regional outreach on such matters. According to a specialist who was part of the IAEA delegation and later submitted a report on the proceedings, the DAE has expressed interest in organizing another such workshop in 2005.¹²⁸

The DAE has also increased its cooperative dialogue on nuclear safety with the U.S. Nuclear Regulatory Commission (NRC). The U.S.-Indian cooperative agenda instituted in April 1998 was suspended following the May 1998 Indian nuclear tests, but has since resumed with two NRC visits (in 2003 and 2004). The 2004 NRC visit, following the signing of the NSSP, assessed how safe civilian Indian nuclear facilities were from the dangers of unsafe operations and how secure they were from terrorist attack. In February 2005, after the fifth bilateral U.S.-India interaction at the regulatory level, the U.S. side invited one or more representatives from the AERB to spend six months in the United States at the NRC, declaring that such a visit would represent “a valuable tool in learning and exchanging information on how the reactors work and the care being taken to maintain these reactors.”¹²⁹

Third, the Defense Research and Development Organization has established a multi-year program to train its midlevel scientists on technology security and export control issues.¹³⁰ The program aims to equip DRDO personnel with a broad understanding of the emerging challenges posed by export controls in knowledge economies, and of international best practices that maintain the security of indigenous and imported technologies.

Fourth, the issue of training and enforcement has attracted greater and greater attention in the U.S.-Indian official dialogue. Since 2003, at least two bilateral export control meetings have focused on best practices in customs enforcement (U.S. side), and on customs procedures and institutions (Indian side).

Finally, New Delhi has established a National Emergency Response Force to deal with calamities related to nuclear, biological, and chemical disasters. Under the plan, eight battalions of the Central Para Military Forces have been earmarked to develop fully trained and suitably equipped specialist response teams, according to the *Annual Report (2003-04)* of the Ministry of Home Affairs.¹³¹

The Indian government, then, has begun allocating additional resources to enhance safety at its nuclear facilities, to train the personnel working in these facilities, and to familiarize officials at the relevant government agencies with export controls and dual-use exports. Even so, given the rapidly growing need to handle additional licensing and enforcement duties, especially in a country of India’s size and diversity, the GOI will need to dedicate considerably greater policy attention and resources to this task than it has to date.

III. Penalties

The Indian Customs Act of 1962¹³² envisages two types of punishments:

- i. Civil liability: a penalty for violating statutory provisions, involving forfeiture of funds or goods (or both)
- ii. Criminal liability: a penalty levied by a criminal court, involving imprisonment or a fine (or both)

¹²⁸ This workshop, entitled “International Training Course on Security for Nuclear Installations,” was considered very useful by all sides. Author conversation with a member of the IAEA delegation to this workshop, September 2004.

¹²⁹ Pranab Dhal Samanta, “U.S. Welcomes Indian N-experts,” *Indian Express*, February 12, 2005, <http://www.indianexpress.com/print.php?content_id=64547>.

¹³⁰ The DRDO is partnering with the Center for International Trade and Security, University of Georgia (USA) in this program.

¹³¹ “Special Force to Be Set Up for Nukes, Biological Emergencies,” Press Trust of India, September 11, 2004, <<http://www.zeenews.com/znews/articles.asp?aid=176942&sid=NAT>>.

¹³² Available at Central Board of Excise and Customs, Government of India Website, <<http://www.cbec.gov.in/cae/customs/cs-acts-main.htm>>.

Both civil and criminal sanctions can be imposed for the same offense. Broadly speaking, the courts tend to order the permanent confiscation of goods detained during unlawful or improper import or export transactions. Section 111 of the Customs Act authorizes the confiscation of improper imports, while Section 113 contains details describing goods that can be confiscated if exported improperly. Section 2(33) of the Customs Act defines “prohibited goods” as “any goods the import or export of which is prohibited under Customs Act or any other law for the time being in force, but does not include any such goods in respect of which the conditions subject to which the goods are permitted to be imported or exported have been complied with.” Further, in accordance with Section 113, “goods attempted to be improperly exported” are liable to confiscation. In brief, those who attempt to export goods in violation of the law, misdeclare goods, export under a false claim of duty drawback, or violate rules regarding the movement, storage, or loading of export goods may have the goods involved in the transaction confiscated. The above provisions are covered in the definition of smuggling.

Until May 2003, Section 113 provided for confiscation only in cases involving “dutiable or prohibited” goods. Since then, however, the law has authorized confiscation of *any* goods (whether dutiable or prohibited or not) that are misdeclared or exported illegally. Section 114 authorizes legal sanctions for improperly exporting goods if:

- i. Any Indian law forbids the exportation of the goods. The penalty may not exceed the value of the confiscated goods or Rs 5,000 (approximately U.S.\$125), whichever is higher.
- ii. The goods confiscated are liable to export duty but are not prohibited. The penalty may not exceed the duty the exporter sought to evade or Rs 5,000 (U.S.\$125), whichever is higher.
- iii. The goods confiscated are not covered elsewhere in Section 114. In these cases the penalty levied may not exceed the value of the goods, as declared by the exporter, or the value determined under the Customs Act, whichever is greater.

Clause (iii) of Section 114 was amended in May 2003 to cover cases in which the value of export goods has been inflated.¹³³ Section 117 of the Customs Act provides for a general penalty to be levied against any person who contravenes any provision of the Act or who abets any attempt to contravene the Act. If the law prescribes no specific penalty for such offenses, the penalty may be fixed as high as Rs 10,000 (U.S.\$250).

A person charged with selling or exporting prescribed nuclear information and materials without proper certification and authorization may be tried for violations of the Atomic Energy Act of 1962. According to one DAE official, the actual scope of the 1962 Act is quite “draconian,” in that the accused may face espionage and even treason charges. To date, however, the cases tried under this Act have been deemed to be “minor,” borne primarily of “ignorance about radioactive substances.”¹³⁴ Further, since these cases did not involve attempts to export materials outside Indian borders, the violators were not punished severely. One official admitted that in recent years, only one case has involved an exporter supplying false information on the export license. In that case the infraction was detected and severely punished. (The entity was unofficially blacklisted and cannot expect to get an export license for the foreseeable future.¹³⁵) However, little publicity is given to export control or smuggling violations: Government websites do not mention such cases,

¹³³ These are cases in which the exporter is entitled to higher export benefits and the excess amount collected in invoice is sent back through an informal financial network such as *hawala*.

¹³⁴ Six instances are detailed for the period 1994-2003 in Andrew Prosser, “Nuclear Trafficking Routes: Dangerous Trends in Southern Asia,” Report, Center for Defense Information, November 22, 2004, 9-10, <<http://www.cdi.org/PDFs/TraffickingSmuggling.pdf>>. Almost all of these cases involved smuggling radioactive materials and waste from Indian mines.

¹³⁵ Officials believe, however, that this was a sting operation, meant to test export control implementation. It is unclear to the authors whether it was foreign-inspired or internal.

and no data is publicly available about penalties imposed on the perpetrators. More information is available about import violations than about export violations.

The 2005 WMD Act stiffens the penalties for WMD-related violations by individuals and business entities. Section 14 establishes penalties for violations of Sections 8 and 10 (prohibited activities related to WMD and those related to intimidating acts through the use of fissile or radioactive material), while Section 15 deals with violations of Section 9 (activities aiding non-state actors and terrorists). Both prescribe imprisonment for a term of no less than five years (and up to life), along with a monetary fine. Section 16 prescribes fines between Rs 3 lakhs to Rs 20 lakhs (approximately \$7,092 to \$47,281) for unauthorized exports [Section 13(4)] and mandates imprisonment between six months and five years for a second offense and every subsequent offense. Section 17 (penalties for violations of all other provisions of the Act), Section 18 (penalties for using false information or making forged documents, etc.), and Section 19 (penalties for offenses for which no other provision has been made) further boost the power of the enforcement authorities. Finally, Section 20 (offenses by companies) mandates that not only the company itself, but every person who (at the time an offense was committed by the company) was in charge of or responsible to the company, shall be deemed guilty and liable for trial and punishment. The only way for such an individual to escape punishment would be “to prove that the offence was committed without his knowledge or that he had exercised due diligence to prevent the commission of the offence.”

IV. Verification

Consular offices and embassies abroad are routinely used to conduct pre-license checks, particularly when the designated end-user is located in a country of concern. For exports to other destinations, such checks are triggered by information from intelligence agencies.

End-user certification is required for both imports and exports, and it is the responsibility of the importer or exporter to furnish complete and accurate information. Inconsistencies or false claims in this document render the person or entity liable to penal action, including suspension of the export license or of the importer-exporter code number. At the other end of the export transaction, the exporter has to submit a bill of entry (into the recipient state) within 30 days of delivery, or face penalties under the FTDR of 1992 and/or the Customs Act of 1962.

The bulk of Indian nuclear exports take place under projects approved by the IAEA, while others proceed under bilateral agreements or commercial arrangements. As per the legal position, any individual or entity—including all public-sector units—seeking to export prescribed material or equipment must submit an export or import application to the DAE, which reviews the case and either issues the license or rejects the application.

At present, the Indian private sector serves as a vendor for government-owned institutions (e.g., the Bhabha Atomic Research Center, the Nuclear Power Corporation of India Ltd., or the Indira Gandhi Center for Advanced Research) and has not developed its own designs for nuclear dual-use equipment. Consequently, it does not engage in exports of sensitive nuclear equipment; it only exports nuclear dual-use substances (materials). However, it is likely that the private sector will develop its own designs for nuclear dual-use equipment in the near future. In anticipation of this, the government has put in place a legal framework specifying the requirements for private- or public- sector entities to export such dual-use (SCOMET) equipment or materials.¹³⁶

Nonetheless, for nuclear-related items, the DAE is developing a database to keep track of the activities of exporters and importers of nuclear materials. This task is relatively easy now because of the very small number of actors (government and private) currently involved in the nuclear sector. But the challenge is expected to grow in the coming years as India gears up to allow more exports and imports of nuclear materials and technologies, and as it plans to expand its nuclear energy capacity more than sevenfold by 2020 through indigenous efforts and international participation.

¹³⁶ Email communications with a senior DAE official, January-February 2005.

On the chemical and biological side, the government is fulfilling its CW dismantlement obligations under the CWC, as well as establishing procedures for stricter pre-shipment verification of end-uses by the chemical and pharmaceutical industries. Exporters are required to submit an end-use and end-user certificate “even if the importer is a member of the Australia Group.”¹³⁷ The DGFT mandates that exporters and industry representatives personally visit the importing site and assure themselves of the bona fides of the entity concerned before applying for an export license.¹³⁸ This requirement comes in addition to the signed end-use/end-user declaration that is required with a license application, certifying that the end-user “shall not cause the items, or replicas, or derivatives thereof, to be re-transferred/sold without the knowledge and consent of the Government of India.” A recent change to the regulations requires that, when Schedule 3 chemicals are exported, the end-use and end-user certificate be signed by the responsible authority from the recipient (importing) country. New Delhi sees this as an added safeguard against any misuse of exports from India.¹³⁹

Customs-related enforcement agencies have quasi-judicial authority. They often initiate administrative proceedings that require an exporter to furnish details about a transaction of concern and to “show cause” why action should not be taken against him or her for violating export control and customs regulations.

No formal evidence is available about whether the Indian government checks for diversions, although copies of import certificates and export licenses are routinely sent to the Directorate General of Revenue Intelligence, the Ministry of Defense, and the Ministry of External Affairs. For certain categories, the manufacturer is required to get the product destined for exportation checked and sealed by DGFT officials before it leaves the factory site to be exported. If the seal is tampered with before it reaches the customs office, the shipment is stopped and an inquiry is initiated to ascertain the cause. The export is allowed only after questions about the manufacturer’s complicity are cleared up. Industry generally works to ensure such pre-shipment verifications are completed successfully, because goods exported are not taxed.¹⁴⁰ Hence, according to DGFT officials, it is in the manufacturer’s interest to notify the government in order to avoid being charged the Modified Value-Added Tax levied on products released into the domestic market by the Excise Department.

Challenges

Chemical industry representatives have stated that the DGFT has, in the recent past, conducted post-shipment verifications in some cases. DGFT officials confirmed that such checks take place, but noted that they remain few and are triggered primarily by new developments that raise suspicions about importers or end-users. Most cases involving end-user verification or misreporting of information on license applications are dealt with during the application review phase, through informal coordination and information-sharing between officials from the relevant departments (and sometimes from Indian embassies and consulates abroad). At the same time, there do not appear to be any specific criteria or qualifications for personnel who conduct such checks. This raises questions about the effectiveness and thoroughness of the checks (pre- or post-license). Further, some checks have been conducted in recent years based on intelligence information furnished by the United States government. This raises additional questions about how well equipped the

¹³⁷ Interview with a Ministry of Defense official, New Delhi, June 2002.

¹³⁸ One interviewee admitted to recent site visits to China and Saudi Arabia under this requirement.

¹³⁹ Source: “Automated Licensing Exchange,” DGFT presentation at the Indo-U.S. Workshop, Washington, DC, November 2004.

¹⁴⁰ However, excess is collected under various enactments in respect of some items exported. See the description of Indian export and import policy, available at High Commission of India in Singapore Website, <<http://www.embassyofindia.com/DOING%20BUSINESS%20TRADING%20WITH%20INDIA%20EXPORT%20IMPORT%20POLICY.htm>>.

Indian system is to gather information on its own about the bona fides of a sensitive company or of an entity in a sensitive country.

GOVERNMENT-INDUSTRY OUTREACH

I. Information Sharing and Accessibility

Most of the public documents regarding export controls are now available from the DGFT website, as well as from designated outlets such as publishers and booksellers. In addition, since early 1998 the DGFT has regularly shared a compilation of regulations entitled “Briefing Notes on the System of Control over Exports from India” with external actors, including officials and nongovernmental organizations.

The new thrust at DGFT is to facilitate online license applications. Accordingly, the department’s website now furnishes exporters and importers with a considerable amount of information. To provide an additional inducement, applications filed electronically (through the DGFT-affiliated website) receive a 50 percent discount on processing fees, as compared to manual applications.¹⁴¹ Exporters are also able to gain access to the agenda items for IMWG meetings and track the progress of their applications.¹⁴²

Exporters and importers have welcomed the measures the GOI has taken to facilitate trade, such as self-assessments and provisions for round-the-clock electronic filing of bills of entry at 23 customs stations. Indeed, they are now demanding that the government quickly introduce further automation, allowing them to file bills of entry or shipping bills online from their own offices, the way they file import license applications.¹⁴³

The DGFT routinely shares information regarding end-users, as well as procedures for verifying that imports are not diverted to unauthorized domestic end-users, with suppliers of foreign technology. This is especially the case when such information is part of the end-user verification requirements of the exporting country, e.g., the United States.

II. Outreach on Industry Compliance

According to some officials from the DGFT and the DAE, regular seminars and training sessions are held for representatives of private firms that collaborate on DAE projects. These sessions are apparently designed to teach these representatives about export controls relating to nuclear and nuclear-related dual-use goods. No official documentation about the nature and scope of this training is yet available.

The DGFT has recently explored industry outreach with one of the major industry associations in India, in an effort to reach out to medium- and small-sized businesses involved in dual-use trade. The industry associations themselves are quite keen to do more on this front, both to promote trade and to foster strategic trade controls.¹⁴⁴ For instance, the Confederation of Indian Industries (CII) is joining with the Bureau of Industry and Security, U.S. Department of Commerce, and the U.S.-India Business Council to host an industry export control outreach program in India in June 2005.¹⁴⁵

¹⁴¹ Source: “Highlights of Exim Policy 2002-07,” as amended up to March 31, 2003, <<http://dgft.delhi.nic.in/>>. Interviews with government officials indicated that the processing fee might be removed altogether for online submissions in the near future, in order to encourage more exporters to begin filing their applications online.

¹⁴² See the listing of cases considered by various licensing committees, <<http://dgft.delhi.nic.in/>>.

¹⁴³ TNC Rajagopalan, “Lower Duties Aligning India with the World,” *Rediff*, January 27, 2004, <<http://inhome.rediff.com/money/2004/jan/27exim.htm>>.

¹⁴⁴ Discussion with representatives from the Confederation of Indian Industry, New Delhi, August 2003.

¹⁴⁵ Author interview with BIS official, January 2005, also mentioned in <http://www.indianembassy.org/press_release/2004/Nov/8.htm>.

III. Industry Input into Policymaking

Chemical industry representatives report that two-way interaction with government agencies has grown over the years since India signed the CWC. In general, dialogue and collaboration between the government and business sectors has been on the upswing. This is especially true in the case of conventional defense-related technologies. In this sphere, both the government (i.e., DRDO) and the private sector are interested in working together to identify long-term goals, and to devise strategies to enhance India's competitiveness and global market share. The government has directed the CII to foster closer ties between the defense industry and the private sector. On May 10, 2001, the GOI opened the Indian defense industry to private-sector participation. It also allowed foreign participation in the sector, capping foreign equity at 26 percent.¹⁴⁶

While industry input into policymaking relating to export control compliance remains in its infancy, government-industry coordination on trade promotion is growing,¹⁴⁷ as is industry's awareness that export controls are needed to enhance security without inhibiting trade.¹⁴⁸ Thus, both of the major national industry associations in the manufacturing sector—CII and FICCI, the Federation of Indian Chambers of Commerce and Industry—attended at least one of the U.S.-India industry outreach workshops organized by the U.S. Bureau of Industry and Security in 2004. The third major industry association, NASSCOM (the National Association of Software and Services Companies), has also increasingly coordinated its trade policies with the government. NASSCOM members are increasingly contributing to the command-and-control components of major combat platforms built by the Indian public sector. Consequently, they have engaged in consultations with the GOI about improving the security of advanced technologies.¹⁴⁹

Challenges

Indian officials assert that reviews and reports of export control violations are filed and stored by the concerned offices. Although information on violations is not routinely made available to the general public, the DGFT did declare in 2003 that it planned to put some of this information on its website. No such information appeared on its website as of June 2005. Industry representatives respond to complaints about this lack of information with studied skepticism, citing the penchant for secrecy in the Indian regulatory bureaucracy. This skepticism appears to be justified, as neither the DGFT nor the Customs Department websites mentioned the much-publicized NEC case until early 2005, nearly two years after the case broke in the media.

Section 13 [subsections (3)a and 3(b)] of the 2005 WMD Act prohibits intangible technology transfers by Indian citizens abroad and by foreign nationals studying or working in India if such transfers facilitate the production and development of WMD. Enforcing this provision would require the DGFT and other agencies to educate not only Indian industry, but also Indian citizens working abroad and the technical and educational institutions in India that invite foreigners to work and study in the country. All this would mean a significant change of pace and activism by the relevant agencies. These agencies would have to engage in sustained and comprehensive outreach and education, a departure from their current practice of issuing circulars and public notices.

¹⁴⁶ In licensing such private-sector ventures, preference is given to original equipment manufacturers or design establishments; companies with a good track record of past supplies to the armed forces or the space or atomic energy sectors; and companies with an established R&D base.

¹⁴⁷ For instance, the CII was primarily responsible for organizing two "Made in India" trade shows in China (in Shanghai and Beijing) in 2003-04. CII and private entities from the Indian aerospace and electronic sectors have coordinated closely with DRDO to organize and participate in the various defense expositions, especially since 2003.

¹⁴⁸ For more details on public-private cooperation, see footnote no. 7, as well as the section, "Changes in the Domestic Environment in India," in the initial part of this report.

¹⁴⁹ Based on media reports and author's conversation with the president of NASSCOM, January 2004.

INTERNATIONAL PARTICIPATION

Regime Adherence

India takes a differentiated and nuanced approach to multilateral nonproliferation treaties. It was one of the earliest proponents of time-bound, global disarmament, and of an end to nuclear testing. New Delhi began agitating for a CTBT as early as 1954. It was also one of the early signatories to the PTBT in 1963. It was fully engaged in negotiating the CTBT at the Geneva Conference on Disarmament in 1996, but finally voted against the draft text and has not signed the treaty. (See Appendix D: India's Membership in Nonproliferation Regimes.)

India is one of four countries never to have signed the NPT.¹⁵⁰ It tested nuclear weapons twice (in May 1974 and May 1998), but it makes a distinction between vertical and horizontal proliferation. Simply put, it regards itself as a domestic but not an international proliferator. India also has declined to join the nonproliferation agreements, namely the NSG, MTCR, AG, and Wassenaar Arrangement. This decision stems from India's perceptions that these regimes are "discriminatory" in nature (in terms of access to civilian dual-use technologies) and that they are reluctant to embrace the notion of time-bound, comprehensive global disarmament. On the other hand, India signed the CWC in 1993 and ratified it in 1997, declaring itself a chemical-weapons possessor state. It is a member of the Executive Council of the OPCW,¹⁵¹ and is pursuing timely destruction of its CW stockpile.¹⁵²

India joined the IAEA in 1957 and has contributed one of the largest technical staffs among the developing countries to various IAEA monitoring and verification missions. It serves on the IAEA Board of Governors and has signed all relevant international conventions relating to preventing terrorism. In recent years, India has taken an active hand in IAEA efforts to ban illicit trade in nuclear materials.¹⁵³ (See Appendix E: India's Membership in Multilateral Conventions on Terrorism.) In this context, it is noteworthy that India's contributions to the collider program secured it observer status at the prestigious Council of the European Organization for Nuclear Research (CERN), Geneva, an honor it shares with the United States, Japan, Russia, Turkey, and Israel.¹⁵⁴

India has also participated in outreach activities sponsored by the Australia Group, but no information is available in the public domain on whether India plans to expand its control list to conform to the AG control list, as China has done while increasing ties with the AG since 2003.¹⁵⁵

India's position on the MTCR has also evolved over time. Indian officials once saw the establishment of the MTCR in 1987 as an attempt to thwart India's domestic Integrated Guided Missile Development Program, a program that commenced in 1983. Their view echoed similar views voiced in China during the previous decade.¹⁵⁶ And while the government of India has acknowledged

¹⁵⁰ The other three are Pakistan, Israel, and Bhutan. With North Korea withdrawing from the treaty in 2003, there are now five countries outside of the NPT.

¹⁵¹ The Organization for the Prohibition of Chemical Weapons, OPCW, headquartered at The Hague in the Netherlands, was created to implement the goals of the CWC. India's participation in OPCW meetings, and its agreement to declare and then begin destroying its CW stockpile within an agreed timeframe, point to the country's likely behavior vis-à-vis the goals of the treaty, which include disarmament in a uniform and time-bound manner by all possessor states. This observation is the sum of authors' conversations with the Indian diplomatic and technical staff at the OPCW and at the National Command Authority for the CWC in New Delhi.

¹⁵² According to the official Indian statement at the CWC Review Conference in April 2003, India had successfully completed its fourth destruction campaign in February 2003, destroying more than 40 percent of its declared Category I chemical weapons under OPCW verification. Source: <<http://www.acronym.org.uk/cwc/03india.htm>>.

¹⁵³ Interviews with Indian officials, October 1997 and July 2002, Vienna.

¹⁵⁴ The granting of observer status followed a significant contribution from Indian scientists, who set up two of the detectors in the Large Hadron Collider experiment and helped construct the collider itself. This is a highly advanced research facility for high-energy particle physics. See for instance "India Gets Observer Status in CERN," *The Hindu*, August 6, 2003.

¹⁵⁵ Interviews with Indian officials, October 1997, Vienna, and Delhi, 2004. For details on this issue, see the February 2005 report, *Export Controls in the People's Republic of China, 2005* by the Center for International Trade and Security, University of Georgia.

¹⁵⁶ *Fifth Report of Standing Committee on Defence (1995-96)*, Ministry of Defense, Government of India, Tenth Lok Sabha Secretariat, New Delhi, August 1995, 15.

that MTCR-related technology embargoes delayed its missile development, it also points out that these embargoes forced Indian weapons scientists to develop indigenous capabilities, eventually boosting the nation's overall civilian and military missile capacity.¹⁵⁷

In September 1994, the MTCR sent its first official delegation to India. While India has not reconsidered its opposition to seeking membership in the regime, its policies in recent years have reflected a growing sensitivity to the MTCR. Thus, Categories 4 and 5 of India's SCOMET list clearly regulate MTCR-controlled items. And, like the MTCR, Indian laws do not prohibit but restrict (i.e., require licenses for) exports of these items. In public statements in early 2005, moreover, Indian officials emphasized that they had deliberately kept the range of the BrahMos supersonic anti-ship cruise missile (290km range, Mach 2.8 speed) under the MTCR's range limits. The missile was developed by BrahMos Aerospace Pvt. Ltd, a joint-venture company established in February 1998 between India's DRDO and Russia's missile design bureau, NPO Mashinostroyeniya.¹⁵⁸ India and Russia plan to induct the missile into their armed forces in the near future. An export version has been offered on the international market, and, as mentioned in the first section of this report, has generated a strong response. Indian defense sources, however, stress that "the missiles to be exported will in no way contravene international norms or exceed restrictions imposed by the Missile Technology Control Regime (MTCR), even though India is not a signatory to it."¹⁵⁹

India's relations with the NSG have also improved in recent years, with India sending representatives to NSG seminars on export controls during 2003-04.¹⁶⁰ In April 2004, when India hosted a visit by the NSG troika in New Delhi, at least one report in the Indian media suggested that India's position on NSG had "recently changed and India is seeking active U.S. support in its quest for NSG membership...[in April 2004] there were indications that New Delhi was making progress in this direction when an NSG team, headed by its current chair, Chang-Beom Cho of South Korea, visited New Delhi for the group's first ever talks with India....The team would not have taken the initiative to start talks on India's admission if the U.S. had continued to oppose the idea of India joining the group without signing the NPT."¹⁶¹ The Indian strategic community has begun to openly debate the possibility of a rapprochement with the NSG based on a mutually beneficial "bargain."¹⁶²

India has informally explored the idea of "islanding" its nuclear facilities, namely placing all of its civilian facilities under IAEA safeguards in exchange for international assistance in its effort to build additional nuclear power plants. "In mid-2002," declared one news report, "New Delhi diplomats told U.S. Deputy Secretary of State Richard Armitage that India would consider putting up to 80% of its reactors under safeguards if the U.S. would not interfere with efforts led by the governments of Russia and France to bend or change nuclear export control laws and allow industry in these

¹⁵⁷ *Annual Report, 1997-98*, Ministry of Defense. For related analysis, see Anupam Srivastava, "Strategic Import of Missiles in Indian Security Policy: Can They Deliver the Goods?" in P. Cotta-Ramusino and M. Martellini, eds., *Nuclearization of South Asia: Problems & Solutions* (Landau Network-Centro Volta, Italy: UNESCO International School of Science for Peace, October 1999), 137-54; Dinshaw Mistry, *Containing Missile Proliferation: Strategic Technology, Security Regimes, and International Cooperation in Arms Control* (Seattle and London: University of Washington Press, 2003), 109-27.

¹⁵⁸ India holds a 69 percent stake in the joint venture, while Russia has a 31 percent stake. BrahMos has been successfully field-tested from sea-based platforms, but is capable of being launched from aerial and land platforms as well. For more, see BrahMos Website, <<http://www.brahmos.com/aboutus.html>>.

¹⁵⁹ Quoted in Rajat Pandit, "New Delhi Planning to Sell Missiles to Friends," *Times of India*, May 1, 2003, <<http://timesofindia.indiatimes.com/cms.dll/html/uncomp/articleshow?xml=0&msid=45098404>>.

¹⁶⁰ Interviews with senior Indian officials, 2004-05.

¹⁶¹ K. P. Nayar, "Delhi Marches Ahead on 'Strategic Tie-Up Road,'" *The Telegraph*, April 12, 2004, <http://www.telegraphindia.com/1040412/asp/nation/story_3116122.asp?headline=Delhi~marches~ahead~on~'strategic'~tie-up~road>.

¹⁶² "In recent years, U.S. officials said, the French government has worked behind the scenes to change the NSG rules with the aim of developing nuclear cooperation with India." Mark Hibbs, "New Delhi Last Year Offered U.S. to Safeguard Most Power Plants," *Nucleonics Week*, March 27, 2003, <<http://www.platts.com>>.

vendor countries to build PWRs (pressurized water reactors) in India.”¹⁶³ Their NSG obligations forbid such likely sources as Russia, France, and the United States to provide nuclear assistance to any country that refuses to place all of its nuclear facilities under IAEA safeguards.¹⁶⁴ This rules out the kind of assistance New Delhi desires. There is, however, some reason to believe that regime members, including the United States,¹⁶⁵ are reviewing their policies with respect to India.¹⁶⁶ Again, an open debate within India on these issues might spark an acrimonious and prolonged discussion of issues relating to sovereignty and national security. That may be why the GOI is pursuing quiet negotiations with various interlocutors on this delicate subject, releasing only enough material to the public to gauge expert reaction in the domestic and international spheres.

¹⁶³ Hibbs, “New Delhi Last Year Offered U.S. to Safeguard Most Power Plants.”

¹⁶⁴ “France Refuses Help on Nuclear Energy,” *The Hindu*, October 29, 2004, <<http://www.hindu.com/thehindu/holnus/001200410290313.htm>>. This issue has also been informally broached in U.S.-India dialogue, as confirmed in off-the-record author conversations with senior officials in the Indian government during 2003-04.

¹⁶⁵ During the March 2005 trip to India by U.S. Secretary of State Condoleezza Rice, media reports indicated that the option of the United States’ building nuclear power plants was discussed, especially in the context of the United States’ urging India not to proceed with a gas pipeline from Iran via Pakistan. See for instance “U.S. May Help India to Build Nuclear Power Plant,” *New York Times*, March 16, 2005, <<http://www.nytimes.com/2005/03/16/international/asia/16cnd-rice.html?pagewanted=print&position=>>>.

¹⁶⁶ For more on the legal and procedural challenges and opportunities offered by the islanding proposal from India, see Seema Gahlaut, “India and the Nuclear Suppliers’ Group,” *Nonproliferation Review* 12, no. 2 (summer 2005, forthcoming).

CONCLUSION

India is not a newcomer to nonproliferation export controls. It took the 1998 nuclear tests to focus international attention on Indian export controls, but India created a policy and system governing dual-use export controls as early as the 1940s. India's commitment to *horizontal* nonproliferation (i.e., to refraining from exports of sensitive technology) has endured despite a series of disagreements with the international community about *vertical* nuclear nonproliferation (i.e., acquiring nuclear weapons and missiles for its own national defense). The latter disagreement dominated international attention until recently, with India refusing to sign the NPT and the CTBT and characterizing the multilateral export control regimes as "technology-denial cartels." At the same time, in contrast to some other states in Asia, including Pakistan and China, the "proliferation problem" as it pertains to India relates not to efforts to use unauthorized WMD-sensitive exports to amass money or strategic influence, but to the need to bring the Indian export control system up to international standards of effectiveness and transparency. These improvements have assumed extra urgency in recent years, as India's private sector has emerged as a source of global manufacturing and advanced software solutions.

This report has described the broad contours of India's nonproliferation-related export control policy and traced how the policy has become more detail-oriented, more specific, and more in tune with international export control trends. The changes in the scope and application of India's export control policy appear to have taken place alongside the government's efforts to promote economic liberalization at home and to pursue a more pragmatic, issue-based engagement with a variety of states abroad. Accordingly, several underlying motivations for greater transparency and specificity are apparent:

- i. The need to facilitate exports *to* and *from* India
- ii. The awareness that India's export profile is changing (i.e., in favor of more dual-use exports and more private-sector participation in such exports), and along with it the challenges to maintaining effective export controls
- iii. The ambition to make India a knowledge-based economy and one of the world's largest manufacturing sources, an ambition which indicates an unavoidable need for internationally competitive standards of technology security
- iv. The desire to project India as a solution rather than a problem in the emerging architectures of Asia and of global nonproliferation

Each of these motives has become increasingly evident in the past few years, as the government of India has taken steps at home and abroad to improve its accessibility to domestic and foreign players in international trade and nonproliferation. India's goals derive from a growing national consensus that export controls must be strengthened and revamped, as well as explained to the affected domestic community as a framework that enables trade while maximizing security.

Both of these facets of export controls have increasingly influenced the orientation and pursuit of India's economic and foreign policies. Both facets are visible in India's dialogue with the NSG and in its bilateral export control interactions with the United States. In both forums, India has reiterated that it urgently needs additional nuclear power while offering to "island" its civilian nuclear facilities, placing them under international safeguards. Similarly, while India's dialogue with the MTCR is still at an early stage, the discussion between New Delhi and the regime relates primarily to exploring the respective costs and benefits of Indian membership for each side. At the same time, the Indo-Russian consortium that plans to export the advanced BrahMos cruise missile has taken care to keep the range and speed of the missile within MTCR specifications.

On the economic front, the government has enacted a series of reforms to facilitate the entry of foreign capital and advanced technology into the country, to help Indian companies invest in or acquire firms abroad, to make the Indian currency fully convertible on capital account, to improve the banking and financial sectors, and to make Indian patent law fully compliant with the World Trade Organization's requirements, especially those relating to intellectual property rights. The nation's composition of foreign trade is changing, showing an increasing share of manufactures and ITES (information technology enabled services). The sources of foreign trade are also changing: India's trade with Asian countries is rapidly catching up with its trade with Europe and the United States. In sum, the GOI is refining its export controls as an "enabling mechanism" to facilitate Indian companies' access to technology-embedded foreign capital, and to encourage multinational entities to conduct advanced R&D and manufacture products in India for sales worldwide.

The impetus to reorient the economy toward foreign trade is manifest in *Foreign Trade Policy 2004-2009*, which includes a number of measures that fine-tune *EXIM Policy 2002-2007*. Together, these policy statements aim to accelerate India's technology-embedded foreign trade and position the country as a global hub for internationally competitive goods and services. These efforts have included simplifying procedures, successively reducing import duties (since 1993),¹⁶⁷ and automating the export and import licensing, customs, and shipping declaration processes. For instance, e-commerce initiatives like digital signature, electronic fund transfer, and message exchange with customs and banks,¹⁶⁸ as well as round-the-clock electronic filing of customs documents for clearance of goods, have not only simplified procedures, but also significantly enhanced the government's ability to monitor and regulate exports and imports.¹⁶⁹

Similarly, the push to promote Indian exports has prompted extensive digitization of documents, expansion of the DGFT and Customs Department websites, offers of new incentives to file export license applications online, and an overall increase in the user-friendliness of the export control interface. Efforts to upgrade the technical and procedural linkages between various field offices and the central offices of the DGFT and the Customs Department via the Electronic Data Interchange program have progressed rapidly. The National Informatics Center (NIC) has been directed to provide secure online platforms for GOI organs such as the DGFT, DRDO, and the Ministries of External Affairs, Defense, and Finance. This task includes using highly encrypted software and firewalls to prevent unauthorized access by domestic and external sources, making the websites user-friendly, adding greater content, and maintaining the system's integrity.¹⁷⁰ In sum, the government is working to establish various data-streams that can eventually be integrated into an extensive database on exporters and importers. This will allow data-sharing among the major agencies involved in export licensing and enforcement, and will foster the development of risk profiles for various categories of proliferation and proliferating entities.

The legal framework for export controls is equally extensive. Significant new changes to India's export control regulations have come about since 2002. However, much work remains to be done in the areas of intangible technology transfers, warehousing, and catch-all controls. The 2005 WMD Act makes substantial progress in providing the legal bases for enforcement when individuals and businesses violate the prohibitions regarding export, re-export, transit, transshipment, brokering, and intangible technology transfers of WMD-related items. Nonetheless, these issues will remain

¹⁶⁷ The peak import duty, which was as high as 350 percent in 1991, was reduced to 25 percent in 2003, to 20 percent in 2004, and to 15 percent in 2005, placing it on par with the WTO-recommended rate. "FM Does an Encore, Almost," *Financial Express*, March 1, 2005, <http://www.financialexpress.com/fe_full_story.php?content_id=84022>.

¹⁶⁸ *India's Foreign Trade Update: Newsletter to India's Commercial Representatives Abroad*, March 2004. Source: Economics Division, Department of Commerce, Ministry of Commerce and Industry, Government of India Website, <http://commerce.nic.in/india_foreign_trade.pdf>. See also the section under "electronic data interchange" in Chapter 8 of *Foreign Trade Policy 2004-2009*.

¹⁶⁹ This facility, which was previously available in 9 customs locations, was extended to 23 customs locations by March 31, 2004.

¹⁷⁰ Author interviews with the deputy director of NIC, Washington, DC and New Delhi, 2003-04.

on the government's agenda for further action, as supportive implementation procedures and subsidiary regulations will have to be introduced under the Customs and FTDR Acts. Similarly, developments with regard to catch-all controls, to take one example, are currently limited to amending the language of existing regulations. These amendments either explicitly place SCOMET items under stricter export and customs procedures or explicitly exclude SCOMET items from the more "liberal" procedures for export and re-export of non-licensed items. Now, with the passage of the 2005 WMD Act, the challenge will be to incorporate the "knowledge standard" in this new Act uniformly and explicitly in the other regulations.

The Department of Atomic Energy has been successful in regulating all materials of nuclear nonproliferation concern, while the Defense Research and Development Organization has managed its monopoly over missile technology without any proliferation-related mishaps. However, the nuclear, space, and defense industrial sectors will soon experience growing participation by the private sector—both domestic and foreign. India will need ever-more-specific export control regulations and increasingly rigorous enforcement as profit-oriented industry managers—rather than civil servants and scientists—assume responsibility for export decisions.

India would clearly benefit from having a unified national export control law. Official statements over the past two years indicate that the country is close to making proactive changes in the Atomic Energy Act of 1962 and enacting an export control law. The 2005 WMD Act is a significant milestone in this direction because it comprehensively defines controlled "technology," as well as the range of activities that are prohibited if they involve WMD-related items. The Act even brings in the intent of the catch-all section—"knowingly facilitates/contributes" to a WMD program—to expand the liability of Indian citizens and entities, regardless of their location. This sets the stage for a comprehensive export control law and possibly a nodal agency to implement the export control law. Other states that follow the tradition of customary law, such as the United Kingdom, have been able to introduce a comprehensive export control law, although it took several years and major proliferation scandals to spur the British government to do so. India need not await a similar scandal to adopt what is now considered a best practice among international suppliers of high-technology items.

The decisionmaking procedures for licensing and enforcement are well established, and are followed as a matter of routine, rather than as a response to specific events. SCOMET represents a single, unified control list of dual-use items. Its technology categories are similar to those underpinning the EU and U.S. dual-use lists, although it does not include as extensive an array of items. The SCOMET list, however, has been growing for the past few years, reflecting India's growing export capabilities and nonproliferation concerns. All items on this control list go through the same licensing process and scrutiny, whether the items are nuclear-, chemical-, biological-, or missile-related. India's efforts to automate export licensing and controls are fairly advanced and have won plaudits from U.S. officials who are using export control outreach to promote automation in a range of countries.¹⁷¹

The DAE has been organizing nuclear export control training and seminars for domestic industry and laboratories with increasing frequency since the mid-1990s. At the same time, the Atomic Energy Regulatory Board has become proactive in seeking international cooperation on nuclear safety. Similarly, government oversight over the chemical industry has grown since India signed the CWC, and the government has enacted biosecurity-related regulations since the Environmental Protection Act went into force in 1989. As India invests more in biotechnology, one can expect to see the GOI institute more specific controls and more stringent oversight over exports and imports of biological materials and equipment.

¹⁷¹ Conversation with U.S. officials, Washington, DC, January 3, 2005.

The GOI has shared information about export control regulations with growing efficiency. The government has taken notable steps to make information available to relevant groups such as domestic exporters, foreign governments, and international organizations. India's report to the United Nations Security Council, mandated by resolution 1540, was one of the most detailed after those of the United States and the United Kingdom. Further, various agencies within the Indian government have engaged in a sustained and comprehensive dialogue on export control reform with their U.S. counterparts. This dialogue has brought to light valuable information about export control practices and thinking in India, and has prodded the government to make its policy and procedures even more comprehensible to external audiences (beyond the United States).

Positive changes in Indian export controls will likely proceed at a steady but unspectacular pace. The reasons are fairly commonsensical: India is not beginning afresh in the area of export control regulation. Its laws and procedures have been in existence for decades, are extensive, and have performed well in controlling sensitive exports. Thus, a fundamental overhaul of the system is not warranted. Nor would such an effort gain broad support from the Indian bureaucracy or the political leadership. The stewards of India's strategic assets and trade controls feel justifiably proud of the country's unilaterally developed system and its track record.

In sum, Indian controls over transfers of sensitive materials and technology continue to reflect the internal policy consensus within the GOI rather than any consequences flowing from India's membership in (or aspiration to join) multilateral nonproliferation regimes. Nonetheless, the improvements to chemical and biological controls inaugurated since India took part in the United Nations Conference on the Human Environment (1972) and signed the Chemical Weapons Convention (1993) strongly indicate that the GOI makes its regulations and procedures more explicit and comprehensive once it joins an agreement. These developments also suggest that engaging or including India in multilateral technology control negotiations could enhance transparency in the nation's domestic policies and procedures, and convince the GOI to make its nonproliferation commitments more explicit in the legal and regulatory framework. Forceful action in these areas would assuage any lingering international concerns about technology security in India, assuring the nation a bigger say in economic and security decisions taken by the international community. ■

Appendix A

Comparison of SCOMET with EU and U.S. Export Control Categories

(U.S. list = 15 CFR 730-774; EU list = (EC) No 149/2003)

SCOMET Cat. 0 - Nuclear Materials, Facilities, and Related Equipment

U.S. Category 0 - Nuclear Materials, Facilities, and Equipment and Misc.

EU Cat. 0 - Nuclear Materials, Facilities, and Equipment

SCOMET Cat. 1 - Toxic Chemical Agents and Other Chemicals

SCOMET Cat. 2 - Microorganisms, Toxins

U.S. Category 1 - Materials, Chemicals, Microorganisms and Toxins

EU Cat. 1 - Materials, Chemicals, “Microorganisms” and “Toxins”

SCOMET Cat. 3 - Special Materials, Materials Processing Equipment, and Related Technologies

U.S. Category 2 - Materials Processing

EU Cat. 2 - Materials Processing

SCOMET Cat. 4 - Avionics and Navigation

U.S. Category 7 - Guidance, Navigation, Altimeters, Avionics

EU Cat. 7 - Navigation and Avionics

SCOMET Cat. 5 - Aerospace Materials, Equipment, Systems, and Related Technologies

U.S. Category 9 - Propulsion Systems, Space Vehicles

EU Cat. 9 - Propulsion Systems, Space Vehicles, and Related Equipment

SCOMET Cat. 6 - Reserved

U.S. Category 6 - Optics, Cameras, Lasers, Radar

EU Cat. 6 - Sensors and Lasers

SCOMET Cat. 7 - Electronics, Computers, and Information Technology Including Information Security

U.S. Category 3 - Electronics

U.S. Category 4 - Computers

U.S. Category 5 - Communications, Telecommunications

EU Cat. 3 - Electronics

EU Cat. 4 - Computers

EU Cat. 5 - Telecommunications and “Information Security”

No SCOMET Cat.

U.S. Category 8 - Submersible Systems, Scuba, Marine Equipment

EU Cat. 8 - Marine

Appendix B

Recent Legislative and Procedural Amendments in Indian Dual-use Export Controls

In each of the sections below, the amended language ensures that exemptions do not include exports of SCOMET items, which are specified as Appendix 3 of Schedule II to the ITC(HS) Classification of Export and Import of Items, 2002-2007.

The amendments in the *Handbook of Procedures* also serve “to increase awareness among exporters” and “to exclude any misuse of these privileges” vis-à-vis SCOMET regulations.

Document	Section	Subject
<i>EXIM Policy 2002-2007</i>		
	Paragraph 2.21	Import on Export Basis
	Paragraph 2.22	Re-import of Goods Repaired Abroad
	Paragraph 2.33	Export of Spares
	Paragraph 2.36	Export of Imported Goods
	Paragraph 2.37	Export of Replacement Goods
	Paragraph 2.38	Export of Repaired Goods
	Paragraph 4.1.11	Advance License* for Export-Restricted Goods – Provision Deleted
<i>Handbook of Procedures</i> (Vol. I)		
	Paragraph 2.2	Exports to Iraq
	Endorsement on Advance Licenses	Overriding Application of Restrictions Specified in ITC(HS) Schedule II
	Endorsement on DEPB** and DFRC*** Licenses	Mandatory Compliance with Conditions Specified in ITC(HS) Schedule II

* Advance licenses are issued to a manufacturer exporter or a merchant exporter to allow duty-free import of inputs required for export production.

** The Duty Exemption Pass Book scheme allows drawbacks of import charges on inputs used in the export product.

*** A Duty Free Replenishment Certificate permits duty-free replenishment of inputs used in the export product.

Source: “Export Licensing System in India: SCOMET,” presentation by the Indian delegation at the U.S. Department of Commerce, April 2003.

Appendix C

Recent Changes in Indian Customs Act of 1962

<p>Section 113¹, Clauses (i) and (k) of the Customs Act, 1962 (amendment made via Finance Act, 2003)</p>	<p>Section 113 (“Confiscation of goods attempted to be improperly exported”): The following export goods shall be liable to confiscation:</p> <p>Clause (i): “any dutiable or prohibited goods or goods entered for exportation under claim for drawback which do not correspond in respect of value or in any material particular with the entry made under this Act or in the case of baggage with the declaration made under Section 77.”</p> <p>Clause (k): “any goods cleared for exportation under a claim for drawback which are not loaded for exportation on account of any willful act, negligence or default of the exporter, his agent or employee, or which after having been loaded for exportation are unloaded without the permission of the proper officer.”</p>	<p>“any goods entered for exportation which do not correspond in respect of value or in any material particular with the entry made under this Act or in the case of baggage with the declaration made under Section 77.”</p> <p>“any goods cleared for exportation which are not loaded for exportation on account of any willful act, negligence or default of the exporter, his agent or employee, or which after having been loaded for exportation are unloaded without the permission of the proper officer.”</p>
<p>Section 135², clauses (b) and (c) of the Customs Act, 1962 (amendments made via Finance Act, 2003)</p>	<p>Section 135:if any person, Clause (b): “acquires possession of or is in any way concerned in carrying, removing, depositing, harbouring, keeping, concealing, selling or purchasing or in any other manner dealing with any goods which he knows or has reason to believe are liable for confiscation under Section 111, he shall be punishable.”</p> <p>Clause (c): inserted anew.</p>	<p>“acquires possession of or is in any way concerned in carrying, removing, depositing, harbouring, keeping, concealing, selling or purchasing or in any other manner dealing with any goods which he knows or has reason to believe are liable for confiscation under Section 111 or section 113, as the case may be, he shall be punishable.”</p> <p>“(c) attempts to export any goods which he knows or has reason to believe are liable to confiscation under Section 113.”</p>
<p>Section 136³ of the Customs Act, 1962 (amendment made via Finance Act, 2003)</p>	<p>(1) If any officer of customs enters into or acquiesces in any agreement to do, abstains from doing, permits, conceals any duty of customs leviable on any goods, or any prohibition for the time being in force under this Act or any other law for the time being in force with respect to any goods is or may be evaded, he shall be punishable with imprisonment for a term which may extend to three years or with fine, or with both.”</p>	<p>“(1) If any officer of customs enters into or acquiesces in any agreement to do, abstains from doing, permits, conceals or connives at any act or thing, whereby any fraudulent export is effected or any duty of customs leviable on any goods, or any prohibition for the time being in force under this Act or any other law for the time being in force with respect to any goods is or may be evaded, he shall be punishable with imprisonment for a term which may extend to three years or with fine, or with both.”</p>

Source: “Export Licensing System in India: SCOMET,” presentation by the Indian delegation at the U.S. Department of Commerce, April 2003.

Appendix D

India's Membership in Nonproliferation Regimes

Agreement	Year	Indian Accession (Date)
International Atomic Energy Agency - IAEA Additional Protocol	1957	Yes (1957) - No
Partial Test Ban Treaty	1963	Yes (1963)
Comprehensive Test Ban Treaty	1993	No
Nuclear Non-Proliferation Treaty	1968	No
Antarctic Treaty	1961	Yes (August 19, 1983)
Nuclear Suppliers Group	1975	No
Geneva Protocol	1928	Yes (April 9, 1930)
Biological Weapons Convention	1972	Yes (July 15, 1974)
Chemical Weapons Convention	1993	Yes (April 29, 1997)
Australia Group	1985	No
UN Register on Conventional Arms	1991	Yes (1992)
Landmine Convention	1997	No
Wassenaar Arrangement	1995	No
Outer Space Treaty	1967	Yes (January 18, 1982)
Missile Technology Control Regime	1987	No
Hague Code of Conduct	2002	No

Appendix E

India's Membership in Multilateral Conventions on Terrorism

	Name of Convention	Date	Signed	Ratified
1	Convention on the Prevention and Punishment of Crimes Against Internationally Protected Persons, Including Diplomatic Agents	Dec. 14, 1973		State party
2	International Convention Against the Taking of Hostages	Dec. 17, 1979		State party
3	International Convention for the Suppression of Terrorist Bombings	Dec. 15, 1997		State party
4	International Convention for the Suppression of the Financing of Terrorism	Dec. 9, 1999		State party
5	Convention on Offenses and Certain Other Acts Committed on Board Aircraft	Sept. 14, 1963	Jul. 22, 1975	Oct. 20, 1975
6	Convention for the Suppression of Unlawful Seizure of Aircraft	Dec. 16, 1970	Jul. 14, 1971	Nov. 12, 1982
7	Convention for the Suppression of Unlawful Acts Against the Safety of Civil Aviation	Sept. 23, 1971	Dec. 11, 1972	Nov. 12, 1982
8	Convention on the Physical Protection of Nuclear Material	Mar. 3, 1980	Mar. 12, 2002	Apr. 11, 2002
9	Protocol on the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation, Supplementary to the Convention for the Suppression of Unlawful Acts Against the Safety of Civil Aviation	Feb. 24, 1988	Mar. 22, 1995	Apr. 21, 1995
10	Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation	Mar. 10, 1988		State party
11	Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms Located on the Continental Shelf	Mar. 10, 1988		State party
12	Convention on the Marking of Plastic Explosives for the Purpose of Detection	Mar. 1, 1991	Nov. 16, 1999	Jan. 15, 2000
13	SAARC Regional Convention on Suppression of Terrorism	Nov. 4, 1987	Nov. 4, 1987	Nov. 4, 1987

¹ Sections 113, 114, and 135 of the Customs Act of 1962 are applicable to export violations. These provide for confiscation of goods, imposition of penalties, and imprisonment of the persons involved. Section 113 of the Customs Act deals with "confiscation of goods attempted to be improperly exported." Prior to the amendment, only dutiable or prohibited goods, or goods under duty drawback claims, could be confiscated in case of attempts at improper exportation. The provisions have now been broadened inter alia to include SCOMET items.

² Amended Section 135 makes SCOMET violations, including attempted violations, punishable by imprisonment.

³ Amended Section 136, which deals with offenses by customs officers, makes customs officers liable for conniving in or abetting any fraudulent exports, including those that violate SCOMET regulations.



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