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1540 in Practice: Challenges and Opportunities for Southeast Asia

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Southeast Asia has a critical role to play in the global nonproliferation regime.² The region is home to emerging nuclear energy programs and growing chemical and biotech industries that rely on dual-use goods and technologies. Such goods and technologies represent a proliferation risk since they can be used for weapons of mass destruction (WMD) programs. Several countries in the region are also major transit and transshipment hubs where smugglers of proliferation-sensitive goods can exploit the region's ports and sea lanes if relevant controls are not in place.

In this context, strengthening WMD proliferation controls in Southeast Asia as mandated by United Nations Security Council Resolution 1540 (2004) is key to international security. UNSCR 1540 calls for all UN member states to "refrain from providing any form of support to nonstate actors that attempt to develop, acquire, manufacture, possess, transport, transfer or use" WMD and their means of delivery; to "adopt and enforce appropriate effective laws which prohibit any nonstate actor to manufacture, acquire, possess, develop, transport, transfer or use" WMD and their means of delivery; and to "establish controls to prevent the proliferation" of WMD and their means of delivery.³

This policy brief explores the challenges and opportunities to implementing robust proliferation controls in Southeast Asia and discusses broader development and security benefits that implementation of UNSCR 1540 can bring to the region. Controls over strategic trade⁴

deserve primary attention in the context of UNSCR 1540 implementation in Southeast Asia. Strategic trade management, which refers to controls over transfers of dual-use goods and technologies that can have both peaceful and military (including WMD) applications, provides a regulatory and institutional framework enabling governments to simultaneously pursue non-proliferation and economic objectives. The goal of strategic trade control systems is to *regulate* trade, not prevent it. The strategic trade control systems of Singapore and Malaysia are used as case studies. The brief concludes with a set of policy recommendations.

Translating UNSCR 1540 Obligations Into Opportunities

Most Southeast Asian nations have concerns similar to those shared by many other developing countries in other regions when it comes to UNSCR 1540. The countries with no history of WMD programs and no advanced dual-use industries question the merit of investing in comprehensive proliferation controls. They argue that their primary national security and development priorities may not necessarily overlap with those promoted by UNSCR 1540. Furthermore, most countries with developing economies have serious reservations about establishing controls on movements of strategic goods that might hamper economic growth. The widespread perception is that such controls place a heavy burden on governments and industry, and restrict trade and economic development.

There are significant challenges to implementation of UNSCR 1540 in the Southeast Asian context due to a lack of technical capacity and relevant expertise. Many countries lack capacity to develop a comprehensive legal basis for regulating trade in strategic commodities, particularly transit and transshipment trade. Yet it should be noted that development of appropriate laws and regulations is only the first step: if the legal basis is not underpinned by sufficient institutional and technical resources to fully implement and enforce said controls, it becomes a paper tiger, failing to establish a country's full compliance with UNSCR 1540 mandates. As a result, developing relevant expertise and building capacity becomes an even greater imperative.

Introduction of efficient domestic controls to prevent WMD proliferation in Southeast Asia will assist governments in dealing with a range of other, and likely higher-priority issues. Strengthened border and export controls are as important for tackling the challenges of trafficking of arms, drugs, and people, as they are for countering terrorism and preventing WMD proliferation. For example, measures taken to prevent proliferation of sensitive biomaterials and technology can reinforce a country's ability to detect and deal with highly infectious diseases, thus simultaneously addressing a scourge of public health concerns. Similarly, the already existing capacity designed to deal with the above-mentioned challenges provides an important foundation for implementing UNSCR 1540-mandated controls. For example, controls developed with national security, public health, and environment aims in mind (i.e., controls over firearms, hazardous waste, and toxic chemicals) provide a basis for proliferation controls. More importantly, strategic trade controls implemented as part of UNSCR 1540 commitments may bring potential benefits for economic development for the countries in the region.

Opportunities for Economic Growth

Many governments, especially in countries with developing economies, voice concerns that implementing controls on the movement of strategic goods will hamper trade and economic development. It is difficult, if not impossible, to analyze a direct correlation between strategic trade controls and economic development since the latter is influenced by myriad factors. There are, however, grounds to believe that a comprehensive strategic trade control system may have a posi-

tive effect on the country's economy. Moreover, strengthened governance implications that result from adopting strategic trade controls can help positively shape a country's future in trade, tourism, and foreign investment.

As nonproliferation norms gain strength and wider acceptance around the world, considerations of whether a given country has a reputation as a responsible international actor working toward preventing WMD proliferation will become more and more important in the realm of international trade. The stigma associated with being a "proliferant" supplier state, or one that allows itself to be exploited as a transit/transshipment route for illegal transfers, can significantly hamper any country's ambitions in the economic sphere.

A well-developed strategic trade control system rests on adoption and implementation of streamlined procedures for conducting trade in sensitive items. Clearly defined rules on how domestic companies can apply for export/import licenses for dual-use items and government assistance to industry on implementing internal compliance programs⁵ not only minimize a proliferation threat but also facilitate trade operations for companies working in the high-tech and other relevant industries. Importantly, more streamlined and efficient customs procedures introduced as part of strategic trade control systems will likely result in higher customs revenues.

Development of a strategic trade control system in a given country may also promote the importation of high-tech goods and technology. Most governments of key supplier states require a recipient country to have sufficient controls in place to prevent diversion of sensitive goods or technology for unauthorized purposes or destination. Legislation in many advanced countries prohibits trade with foreign companies suspected of engaging (advertently or inadvertently) in proliferation of WMD-sensitive goods. At the same time, many countries with advanced strategic trade control systems create incentives for their industries to engage in trade with reliable foreign actors.

Facilitation of high-tech transfers based on supplier states' confidence in stringent proliferation controls is especially important for Southeast Asian countries in light of their plans to develop nuclear energy. The region will depend on technology provided by external suppliers to build and maintain nuclear power plants.

Singapore is an example of a country that combines a leading position in global trade facilitation with maintaining a robust strategic trade control system. In 2009, the World Economic Forum ranked Singapore as number one for enabling trade (Global Enabling Trade Report). Singapore ports maintained top positions in terms of the amount of cargo and container traffic handled in 2008, the year for which the most recent statistics are available in these categories.7 While we cannot assert that Singapore's economic development and robust trade are a result of the introduction of a strategic trade control system, we can assert that controls on trade and movement in sensitive goods do not preclude it from dynamic economic development.

Prevention of Arms and Drugs Smuggling, and Counterterrorism

Controls of arms and drugs and controls of WMD-sensitive goods overlap in several key areas. The first relates to enforcement legislation. As a rule, countries have comprehensive legislation relating to enforcing controls over arms and drug trafficking. Traditionally, such legislation grants law-enforcement agencies (customs, border guard, and police) broad powers to search, seize, and arrest cargo and individuals in case there is a suspicion of violation involving drugs or arms. Similar provisions and similar standard operating procedures for detection and enforcement mechanisms are necessary for WMD-sensitive goods.

Second, the same equipment used to detect drugs and arms, such as X-ray machines and portable container scanners, can also be used to detect WMD-sensitive items.

Third, controls over arms and drug trafficking, and WMD-proliferation controls can mutually reinforce each other through personnel capacity, especially when it comes to law enforcement. Techniques for detecting potential violations are similar for cases involving drugs, arms, and sensitive goods. Therefore, investment in personnel and its training to prevent WMD proliferation can be an investment in more efficient controls against arms and drug trafficking.

Fourth, cooperation with other countries, especially in intelligence sharing, is crucial for preventing arms and drug smuggling and for preventing WMD proliferation. Expanding regional cooperation through the Association of Southeast Asian Nations (ASEAN) and strengthening bilateral partnerships with neighboring and other countries in the area of proliferation controls will further reinforce joint measures dealing with drug and arms smuggling.

Finally, intra-agency cooperation between all key actors (licensing, enforcement, and prosecution agencies) is crucial for implementing comprehensive controls over WMD-sensitive goods. Similarly, close interagency cooperation is beneficial to all other enforcement operations. In the case of WMD-sensitive goods, streamlined standard operating procedures for sharing information between the agencies that grant permits and enforcement agencies can ensure that by the time controlled goods reach the customs/border point, enforcement authorities already have the information on the goods and on the companies involved. That will allow the enforcement officers to be efficient in making decisions on whether a certain shipment is legitimate or not. Similarly, data from the enforcement agencies on the actors' compliance record can assist the licensing authorities in deciding whether to authorize a transfer of sensitive goods by these actors. It is also crucial that customs and border-control officers have easy access to technical expertise of other government agencies for purposes of commodity identification. This becomes especially important to identify WMD-sensitive goods.

UNSCR 1540 objectives also align with the goals of the counterterrorism campaign in the region. There are two key areas in which governments' measures to prevent WMD proliferation and measures to thwart terrorist activities will reinforce each other. The first is controls on financial activities and government authority to monitor and, if necessary, freeze financial assets in case they contribute to operations of terrorist groups or to unauthorized transfer of proliferation-sensitive goods. The second is in the strengthened capacity to monitor flows of arms and people across borders. Strong enforcement controls across borders for purposes of preventing WMD proliferation will allow governments to detect movements of militants and arms intended for terrorist purposes.

Opportunities for Advancements in Public Health

The nonproliferation goals of UNSCR 1540 and the countries' objectives in the public health sector can be met with an integrated approach. Domestic measures taken to implement proliferation controls on dangerous pathogens, sensitive bioagents, and technology will directly benefit government capacity to prevent, detect, and mitigate outbreaks of highly infectious diseases. At the same time, measures undertaken in the public health domain can provide an important component of proliferation controls. The duality of goals (nonproliferation and public health) is especially important in the case of Southeast Asia, a region that struggles with a range of endemic diseases.

The nonproliferation goals of UNSCR 1540 in the biological sphere can be also relevant to national priorities of Southeast Asian countries in meeting the International Health Regulations (IHR) requirements.⁸ The IHR adopted by the World Health Organization in 2005 commit members to develop, strengthen, and maintain core capacity for surveillance and response to disease outbreaks. The IHR specifically address requirements on core capacity for designated points of entry (airports, ports, and ground crossings).⁹

Capacity building is at the core of both UNSCR 1540 implementation and successful public health policy. Technical resources such as reference labs, disease detection, and surveillance programs can play a dual role. They can be used to detect and correctly reference sensitive biomaterials (e.g., in the case of checks on suspicious shipments) while also being indispensable in timely detection of disease outbreaks in the country. Similarly, an epidemiological workforce is necessary for addressing public health concerns, including natural or deliberate (bioterrorism) disease outbreaks.

Strengthening biosafety and biosecurity practices at medical and biofacilities will help mitigate the risks of inadvertent infection of facility employees, accidents involving bioagents, and unauthorized access to sensitive material. Specific measures, such as screening at ports of entry for highly infectious diseases, are also important both for public health and nonproliferation reasons.

Participation in the regional and international initiatives to respond to outbreaks of highly

infectious diseases and in regional and international networks on emerging and dangerous pathogens can serve a dual purpose of benefiting public health and prevention of WMD proliferation through expertise sharing.

Southeast Asia's Critical Role in Nonproliferation

While preventing the spread of WMD items is a responsibility shared by all countries throughout the world, a range of factors make the risk of WMD proliferation within Southeast Asia particularly acute. The region at large faces significant security challenges, including problems with piracy and terrorism that create a volatile security environment. Key countries in the region experience booming development of industries that rely on dual-use/proliferation-sensitive goods and technologies, such as nuclear, biotech, and chemical. Finally, geography demands additional efforts on behalf of governments in the region in order to enhance the security environment. Specifically, the Southeast Asian governments face the challenge of securing difficult terrain and extensive maritime borders. Additionally, due to their location at the intersection of important sea lanes, governments within the region deal with a high volume of cargo traffic and must provide adequate transit and transshipment controls in order to prevent smuggling of sensitive items.

Terrorism and Piracy

The presence of several terrorist organizations in Southeast Asia, such as Al Qaeda, the Jemaah Islamiyah Network, Abu Sayyaf, and the Moro Islamic Liberation Front, represents a serious threat to regional and international security.

Al Qaeda's continued operations in Southeast Asia and its connection to indigenous regional terrorist groups represent a particularly worrisome trend. Al Qaeda has built a network of cells throughout Southeast Asia. The authors of the Congressional Research Service report *Terrorism in Southeast Asia* point out that Al Qaeda exploits the region's loose border controls to host meetings to plan attacks and to "host operatives transiting through Southeast Asia, and provide safe haven for other operatives fleeing US intelligence services." They also note the region's loose financial controls allow Al Qaeda to "raise, transmit, and launder the network's funds." Al Qaeda is also known to train members of Southeast Asian ter-

rorist groups at its camps as well as assist in forging ties between various terrorist groups in the region and between these groups and Al Qaeda itself.¹²

The Jemaah Islamiyah Network is the region's largest terrorist network, with a presence in Indonesia, Malaysia, the Philippines, Thailand, and other countries. It has links to Al Qaeda, but the extent of the connection is disputed. According to the 9/11 Commission report, Al Qaeda provided funding, bomb-making expertise, and training to Jemaah Islamiyah. The government of the Philippines confronts a serious terrorist threat from groups such as Abu Sayyaf and the Moro Islamic Liberation Front. Both groups are responsible for a number of killings, kidnappings, and injuries. In the serious confronts of the Philippines confronts.

These groups can potentially be motivated to seek WMD goods, and they are in a strong position to organize illegal transfers of goods, people, and finances. Almost all large local terrorist groups are believed to have some connection to Al Qaeda, either through funding, training, or ideological influence, and Al Qaeda leaders have made it clear that they seek to acquire WMD.¹⁷ Another worrisome trend is that these groups are often interconnected and are present in more than one country that would facilitate any illegal transfer.

For a number of reasons, piracy constitutes a related problem for Southeast Asia. The region is one of the world's busiest in terms of sea traffic. and its geography—which includes thousands of islands—provides pirates with readily available hiding places. In addition, dense island vegetation enables pirates to hide their vessels.18 Despite significant improvements over the past few years, the region still suffers from a relatively high number of piracy incidents. Based on worldwide statistics from the International Maritime Bureau, Southeast Asia has the third highest rate of piracy incidents in the world (10 percent of total reported attacks in 2009) after the Gulf of Aden/Somalia and Nigeria.19 Southeast Asian governments have been successful in reducing piracy in the Strait of Malacca.²⁰ At the same time, piracy trends have worsened in the South China Sea. Pirates operating in the region mostly target tankers and large container ships.²¹ Pirate activities are relevant to the proliferation threat. Terrorist organizations can hire

pirate groups to attack ships with sensitive cargo, or pirates can decide to target sensitive cargo with the aim of profiting from selling it, or holding it for ransom.

Development of Nuclear Energy

The development of nuclear energy in the region will introduce a number of challenges, including an inevitable increase in the flow of nuclear dual-use goods and technology, risk of potential diversion of material, and nuclear terrorism. Several countries in Southeast Asia are seriously considering or are already taking steps to develop nuclear energy for the first time. Vietnam and Indonesia appear to be most advanced in terms of their nuclear energy plans, with the Philippines and Singapore following by exploring the feasibility of such efforts.

In October 2010, Hanoi signed an agreement with Moscow to construct Vietnam's first nuclear power plant. Under the bilateral agreement, the Russians will build two nuclear reactors at Phuoc Dinh in Ninh Thuan province in southern Vietnam. Construction will begin in 2014, with the first reactor coming on-line by 2020, and the second by 2021.²² Vietnam's government also signed an agreement with Japan to construct a second nuclear power plant in the same province.²³ Hanoi plans to have eight nuclear power plants operating by 2030, and the capacity to produce 20,000 megawatts electrical (MWe) of nuclear power by 2040.²⁴

Amid strong popular opposition to nuclear energy, the government of Indonesia is making plans to build its two nuclear power plants on the island of Banka. The head of Indonesia's national nuclear energy agency, BATAN, Hudi Hastowo, announced in October 2010 that construction of the nuclear power facilities might start as early as 2011.²⁵ While the government's previous plans to build a nuclear power plant in Central Java were canceled under strong pressure from environmental groups and the general public, it appears that Indonesia will move ahead with its nuclear energy plans.

The government of the Philippines announced in October 2010 that it would carry out a feasibility study on developing nuclear energy. The Philippines has a nuclear power plant at Bataan, but its operation was aborted in 1986. Debate continues over whether to resurrect the existing

plant or build new ones in case Manila decides to start producing nuclear energy.²⁷

Singapore announced in April 2010 that it would begin a feasibility study on the development of nuclear energy. The government of Malaysia announced in 2009 plans to develop nuclear energy by 2025, and in 2010 allocated \$7 billion toward this goal. The government of Thailand is also moving ahead with its nuclear energy plans. It decided in 2007 to commission five nuclear power reactors by 2020 and has begun a feasibility study as well.

While adding nuclear power will help alleviate some of energy-security concerns, it will also place additional pressure on the governments in the region to minimize the proliferation threats associated with it. Two of the most sensitive stages of the nuclear fuel cycle are uranium enrichment and spent-fuel reprocessing. Uranium enrichment is considered proliferation-sensitive because the technology used to enrich uranium for nuclear fuel for power plants can be used to produce highly enriched uranium for weapons purposes. Spent-fuel reprocessing technology can be used to separate plutonium, another material that can be used to build a nuclear weapon. So far, Southeast Asian countries have not expressed a strong intention to engage in enrichment and fuel reprocessing. The international community does not question the peaceful intentions of Southeast Asian countries interested in pursuing nuclear power, with the exception of some doubts about the purpose of Myanmar's nuclear program. The International Atomic Energy Agency asked to inspect Myanmar's nuclear facilities, acting on suspicion that the country's nuclear program might be used for military purposes.³²

In addition to concerns over proliferation-sensitive parts of the nuclear fuel cycle, there are other risks associated with nuclear energy programs. They include, but are not limited to, risks of nuclear accidents, security, material diversion, and nuclear terrorism. Experience from other parts of the world shows that those concerns are not merely hypothetical. Accidents at nuclear facilities at Three Mile Island, Chernobyl, and an unfolding crisis at the Fukushima Daiichi nuclear power plant in Japan as a result of a natural disaster manifest safety dangers associated with nuclear power. In regards to security, in one of the disturbing incidents of recent years, four gunmen

stormed a nuclear facility at Pelindaba, South Africa in 2007. The fact that the attackers managed to enter a former military facility behind a 10,000 volt security fence³³ indicates that not all nuclear facilities, including nuclear power plants, can be fully safeguarded against a terrorist attack or other forms of sabotage. In order to minimize these risks, the countries considering introducing nuclear energy must plan to adhere to comprehensive standards in everyday operation and maintenance, which in turn place a significant demand for human, financial, and technical resources.

Equally importantly, introduction of nuclear energy programs means an increase in flow of nuclear dual-use goods and technologies. While necessary for the operation of nuclear energy facilities, such items and technologies can also potentially be diverted to a WMD end-use. Therefore, stringent controls are necessary to ensure their protection and proper accounting, as well as ensuring safe transfer—through imports, exports, and retransfers—are necessary.

Emerging and Reemerging Diseases, and Growing Biochem Industry

Biorelated proliferation risks facing Southeast Asia are connected with two regional trends: emerging and reemerging diseases, and growing biotech industries. To deal with emerging and reemerging diseases (detection, containment, and treatment), governments in the region must engage in work with highly infectious pathogens and bioagents, which creates opportunities for their misuse. The growth of the biotechnical industry and related scientific research lead to the expansion of dual-use bioexpertise and development of dual-use goods, which can present a proliferation risk if not properly regulated.

Southeast Asia is one of the regions most vulnerable to infectious disease due to dense population levels and economic underdevelopment.³⁴ The region is particularly susceptible to outbreaks of dengue, Japanese encephalitis, severe acute respiratory syndrome, avian influenza, and others.³⁵

Southeast Asian countries have begun establishing advanced bioresearch labs in order to develop vaccines against highly infectious diseases.³⁶ Malaysia has several biosafety level 3 (BSL-3) labs, including facilities at the Veterinary Research

Institute in Ipoh,³⁷ the University of Malaysia in Kuala Lumpur,³⁸ and at the National Public Health Laboratory in Sungai Buloh.³⁹ There is also some indication that Malaysia might consider a BSL-4 lab in the future. 40 Indonesia has BSL-3 labs at the Eijkman Institute and at the Indonesian National Institute of Health Research and Development, in Jakarta.41 Vietnam has established a BSL-3 lab at the Hospital for Tropical Diseases in Ho Chi Minh City.⁴² In 2007, with assistance from Japan, it started construction of its first BSL-3 lab in Hanoi.43 Singapore has BSL-3 facilities at the Environmental Health Institute,44 the National University of Singapore,45 and Singapore General Hospital.46 The Defense Science Organization facility in Singapore has a BSL-3 lab that operates according to BSL-4 standards.⁴⁷ In 2009, Thailand opened a BSL-3 facility in Bangkok. 48 The operation of such facilities demands a sustained and strict adherence to all safety and security procedures to prevent any unauthorized use of dangerous pathogens. Failure to adhere to such procedures would not only pose a risk to the health of that community, but it would also create the necessary space for a bad actor to acquire a biological weapon.

Southeast Asian governments recognize the challenge facing the region. The high-ranking Filipino official from the Department of Foreign Affairs Generoso Calonge noted at the September 2010 ASEAN Regional Forum Workshop on Biorisk Management, "Biosafety and biosecurity have attained an increased level of attention in recent years, in light of concerns about new global security threats, arising from terrorism, emerging infectious diseases and the rapid expansion of dual-use biological materials, technology, and expertise." 49

The region's booming chemical industries result in increased production and flow (import and export) of chemicals and chemical precursors, equipment, and technology, some of which can be of dual-use nature. For example, in 2009, the chemical sector (including biomedical) accounted for 37.4 percent of Singapore's total manufacturing with a value of nearly \$80 billion. Thailand has a thriving chemical industry with an overall value of more than \$30 billion, and the country's foreign trade in chemicals had a value of approximately \$15 billion in 2009. The chemical industry in Malaysia has the second largest share

of manufactured goods, and the government plans to develop the industry further.⁵² Indonesia has also been expanding its chemical sector.⁵³

Geography

The geography of Southeast Asia is a blessing for trade and a curse for security. On the one hand, the countries benefit from being at the intersection of some of the world's major sea lanes, such as the Strait of Malacca, the Singapore Strait, the Sunda Strait, and the Lombok Strait. The seaports of the region handle large amounts of cargo, providing an overall benefit to their countries' economies. On the other hand, this high volume of cargo places additional responsibility on governments to adequately control the flow of goods through their ports to make sure they do not become transit safe havens for smuggled sensitive goods. In 2009, ASEAN trade (exports and imports) was valued at almost \$1.537 trillion.⁵⁴ In 2008, Singapore was the world's busiest port in terms of total cargo volume and container traffic. It handled 515,415,000 tons of cargo, and its container traffic amounted to 29,918,200 TEUs (twenty-foot equivalent units).55 The ports of Malaysia, Indonesia, and the Philippines were among the world's 50 busiest ports in 2008.56

In addition to geostrategic factors that make Southeast Asia an attractive throughway for sea shipping for legitimate traders and potential smugglers, the region's geography adds another challenge when it comes to proliferation controls. Because the region's terrain and maritime borders are difficult to control, governments must invest heavily in border security and export controls. This is particularly challenging because of limited resources available to most of the countries in Southeast Asia.

Implementation of UNSCR 1540: Progress and Opportunities

Over the past few years, there has been a positive trend in the region: greater attention has been paid to issues of nonproliferation in general, and to UNSCR 1540 in particular. The ASEAN Regional Forum (ARF), which brings together government representatives from ASEAN and other key players in the Asia-Pacific region, held its first Inter-sessional Meeting on Non-Proliferation and Disarmament in July 2009 in Beijing. Importantly, meeting participants devoted special attention to discussing

implementation of UNSCR 1540 and strengthening export controls in the region. Participants reiterated their commitment to UNSCR 1540 and supported the role of ARF in implementing the resolution while also highlighting that "how states implement UNSCR 1540 should be at states' national discretion and states are entitled to make their own decisions on ways to improve implementation of the resolution in accordance with their domestic situations and national legislation."58 ARF representatives noted "legislative and enforcement gaps, limited capacity, and the need of assistance" as some of the challenges to implementing UNSCR 1540 in the region.⁵⁹ On the issue of strengthening export controls, participants acknowledged "the positive impact that export controls can have on the promotion of trade, and on the peaceful development of nuclear, chemical and biological activities" while stressing that the export-control regimes should not "hamper the legitimate rights of developing countries to sustainable development."60

At the Track II (nongovernmental) level, the Council for Security Cooperation in the Asia Pacific (CSCAP) plays an important role in sustaining regional dialogue on nonproliferation and disarmament. CSCAP provides an informal forum for scholars and government officials participating in private capacity to discuss a range of security issues. Regular meetings of the CSCAP Study Group on Countering the Proliferation of Weapons of Mass Destruction in the Asia Pacific bring together experts and officials from different countries in the region and provide an important forum for raising awareness and exchange opinions on pertinent global and regional issues. 61 CSCAP's Export Control Expert Group drafted a "Memorandum on the Guidelines for Managing Trade of Strategic Goods," which was shared with the participants of the first ARF intersessional meeting on nonproliferation and disarmament.62

By treaty, Southeast Asian countries established a nuclear-weapon-free zone in 1995 (in force from 1997), obliging them to neither assist nor encourage the manufacture or acquisition of any nuclear explosive device by any state. Establishment of this zone signified an extremely important commitment to nuclear nonproliferation.

Several regional organizations lead initiatives that are relevant to UNSCR 1540 but do not

always use "1540 language." Within ASEAN, initiatives are underway that address nuclear energy development, such as the Nuclear Energy Regulators Network.65 ASEAN also established a Maritime Forum in 2010 that addresses problems of maritime security,66 relevant in the 1540 context because of the security of sensitive maritime cargo. ASEAN also conducts exercises on preparation for pandemics, relevant in the context of biorelated aspects of UNSCR 1540.167 The ASEAN Regional Forum holds regular intersessional meetings on nonproliferation and disarmament, on counterterrorism, and on transnational crime. ARF also organizes workshops on biorisk management.68 In addition to soliciting counterterrorism action plans from its members, the organization Asia-Pacific Economic Cooperation (APEC) leads the Secure Trade in the APEC Region initiative. The key objective of this initiative is to promote trade while enhancing security of cargo and people.⁶⁹ APEC promotes enhanced security practices by companies to strengthen the supply-chain system against the threat of terrorism. Better security practices by companies as a result of such initiatives contribute to stronger proliferation controls since they reduce the chances of diversion of sensitive goods at the point of origin (manufacturing companies) and in transit (during shipping).

Several Southeast Asian countries also made a contribution to the nonproliferation regime by signing International Atomic Energy Agency Additional Protocols in recent years. In addition to Indonesia—the first in the region to adopt the protocols, in 1999—Singapore and the Philippines did so in 2008 and 2010, respectively. Malaysia and Thailand signed in 2005, Vietnam in 2007, and Timor Leste in 2009.

Strategic Trade Control Trends in the Region

When it comes to UNSCR 1540 implementation in Southeast Asia, controls over strategic trade deserve primary attention. In the context of how to marry nonproliferation objectives with economic and development goals of the countries in the region, the concept of strategic trade management takes center stage. Strategic trade management acknowledges the dual-use nature of a growing number of goods and incorporates economic objectives of governments to facilitate high-tech trade while not contributing to WMD proliferation.

There have been several positive developments in Southeast Asia in terms of strategic trade controls. Singapore continues to strengthen its comprehensive strategic trade control system, which can now be considered one of the most advanced not only in the region but also globally. Malaysia adopted the Strategic Trade Act in 2010, which will serve as a foundation for the country's strategic trade control system. In the Philippines, the Office of the Special Envoy on Transnational Crime, under the president, has led the process of drafting legislation that will underpin the system.⁷²

Singapore

Singapore provides an example of a country that struck a delicate balance between an ambitious economic agenda and comprehensive proliferation controls. Singapore's example serves as evidence that implementation of stricter proliferation controls in line with UNSCR 1540 and promotion of trade are not mutually exclusive.

While Singapore's geographical and economic conditions are different from most countries in Southeast Asia, its experience can be valuable to them. Singapore's approach demonstrates how the emerging proliferation threat from dual-use goods can be addressed as a part of overall trade policy.

Singapore first established controls on trade in proliferation-sensitive goods and technology in 2003. Since then, its government has continued to develop comprehensive legislation specifically devoted to controlling trade in WMD-sensitive goods and technologies with the aim of preventing WMD proliferation.

The legal foundation for Singapore's strategic trade control system is the Strategic Goods (Control) Act, which gives the government authority to license trade in dual-use goods, arms, and other proliferation-sensitive goods. It establishes controls over exports, transshipments, intangible technology transfers, and brokering.⁷³ The act also has provisions for WMD end-use catch-all control for exports, transit movements, and transshipments. Goods and technologies that do not appear on the national control list might require a license if the trader is informed by authorities, knows, or has a reason to suspect that the item might be used in a WMD or missile-related program.⁷⁴

While Singapore is not a member of any multilateral export control regimes, 75 its national control list has been consistent with the control lists of all four such regimes since 2008 and corresponds to a European Union (EU) list of controlled dual-use items. 76 Singapore's control list is updated annually to reflect changes in the control lists of the multilateral export control regimes. 77

In accordance with existing legislation, a trader should seek licensed authorization from the government before a transaction involving WMD-related items and technologies takes place. Because the country's national control list corresponds to the control lists of all four multilateral export control regimes and its Strategic Goods (Control) Act includes a catch-all provision, Singapore's licensing system is comprehensive and covers more or less all goods that can be used in WMD programs.

Some features of Singapore's strategic trade control system demonstrate how the country navigates between preventing WMD proliferation and ensuring facilitation of legitimate trade. The best example is the introduction in 2007 of the Strategic Trade Scheme in 2007,78 which promotes establishment of internal compliance procedures by companies engaged in strategic trade. Internal compliance programs include standard operating procedures that companies can adopt to help them avoid contributing to WMD proliferation and violating laws and regulations. The Strategic Trade Scheme offers incentives to companies that adopt compliance programs: a less burdensome license application and customsclearance process. This facilitates trade in strategic goods for non-WMD purposes while minimizing risks that items exported from Singapore will contribute to WMD proliferation.

Singapore's enforcement of export controls and measures on border security are rather comprehensive. The country's unique feature of having one agency in charge of both licensing and enforcement—Singapore Customs—yields certain benefits. One is the fact that there are fewer short-comings related to interagency coordination and information sharing, since all the data accumulates within customs. As a licensing agency, customs has immediate access to a wealth of information on companies and their transaction history, which most likely helps with enforcement.

Legislation on strategic trade grants customs officers authority to physically inspect suspected shipments and sensitive consignments at points of entry and exit, as well as in the Free Trade Zone.⁷⁹ Enforcement officers rely on intelligence and risk profiling in carrying out such checks.⁸⁰

Importantly, Singapore has a strong legal and institutional basis for combating terrorist financing and money laundering.81 The Terrorism (Suppression of Financing) Act establishes strict prohibitions against providing (or collecting) property that may be used for committing a terrorist act. Under this law, the definition of a terrorist act includes releasing into the environment, distributing, or otherwise exposing the public to "any dangerous, hazardous, radioactive or harmful substance; any toxic chemical; or any microbial or other biological agent, or toxin."82 Other measures include specific legal provisions for financial controls related to proliferant countries: Iran and the Democratic People's Republic of Korea (DPRK). For example, Monetary Authority of Singapore (Freezing of Assets of Persons—Iran) (Amendment) Regulations 2010 specifically prohibit financial institutions from providing any services that can lead to proliferation-sensitive activities by Iran.83 Monetary Authority of Singapore (Sanctions—DPRK) Regulations 2009 prohibit financial transactions involving designated export and import items procured by the DPRK, any person in the DPRK, or any national of the DPRK.84

Singapore Customs actively raises awareness of proliferation risks in industry, providing it with a list of "red flags"—indicators of potentially proliferation-sensitive requests for goods, services, or technology. Like countries with advanced non-proliferation export controls, Singapore publicizes lists of countries and entities sanctioned by the UN Security Councill and of countries embargoed by the EU, the United Kingdom, the United States, and Japan. Singapore bans the export, import, and transit of items related to nuclear or missile programs to or from the DPRK and Iran. Penalties for trade (transfer) violations involving WMD-sensitive items range from seizure of goods to fines and imprisonment.

Malaysia

In April 2010, Malaysia adopted the Strategic Trade Act, a major piece of legislation aimed at

controlling trade in WMD-proliferation sensitive items. The government said introduction of the law was a direct consequence of UNSCR 1540 and Malaysia's determination to fulfill its obligations under the resolution. The law went into effect on January 1, 2011, and will be fully enforced starting in July 2011.

The law requires all traders to apply for a permit before engaging in export, transit, transshipment, or brokering involving strategic goods (which includes strategic technology) listed in the country's control list, and unlisted items, i.e., items that may be used in a "restricted activity."92 A "restricted activity" is "any activity that supports the development, production, handling, usage, maintenance, storage, inventory or proliferation of any weapon of mass destruction and its delivery systems; or participation in transactions with persons engaged in such activities."93 The list of strategic items controlled by the Malaysian government appears in the schedule annexed to the act and is based on the EU dual-use control list.94

In a step crucial for enforcing controls on the flow of proliferation-sensitive items, the act grants broad powers to law-enforcement officers to stop, enter, board, inspect, and search any place, premises, structure, or conveyance and to detain any conveyance; as well as to examine and seize any strategic items or unlisted items; and arrest any person. The act also establishes a range of penalties for violations involving strategic goods, including revocation of licenses, imprisonment for up to ten years; fines; and, in the most severe cases, violations can be punishable by death. In 2010, the government began raising industry awareness of the law's requirements.

The Path Forward

Southeast Asia is a key actor when it comes to minimizing the global WMD threat. Its growing economies will increasingly rely on high technology goods that can present a proliferation risk if not properly regulated. Advancements in nuclear, chemical, and biotechnical industries will introduce additional dual-use goods that need to be controlled. Several countries in the region are important transit and transshipment hubs that can be exploited by smugglers of WMD goods. The region faces the task of strengthening proliferation controls in the context of a complex security environment (the presence of terrorism

and piracy; challenging geographical conditions); lack of resources and expertise; and necessity to attend to other pressing national needs. It is crucial that Southeast Asian countries and the international community recognize the important role of the region in reducing the WMD-proliferation threat and look to successes within the region that serve regional interests as well as those of the international community.

In the context of globalization, an unprecedented growth of dual-use industries, and the emphasis the countries place on trade and economic development, UNSCR 1540 objectives can be addressed with the help of strategic trade control systems. The concept of proliferation controls will increasingly center on management of ever growing flows of strategic goods and technologies with civilian and military applications. Ideally, countries will see establishing comprehensive strategic trade controls as a way to facilitate trade and economic development while preventing WMD proliferation.

There are limits to what most countries in Southeast Asia can do on their own in terms of establishing comprehensive proliferation controls. The region will need substantial help in writing relevant legislation, working out the institutional arrangements that would work best, and implementing and enforcing controls. Offers of assistance have come from the UNSCR 1540 Committee, the Organization for the Prohibition of Chemical Weapons, the EU, Canada, 98 the United States, and others. Southeast Asian countries can benefit from filing requests for specific types of assistance by using the UNSCR 1540 Committee assistance template.99

It will be beneficial for recipient and donor states to approach the implementation of UNSCR 1540 within a broader context of the region's priorities in development and security. As the discussion in this paper demonstrated, the implementation of UNSCR 1540 directly correlates to key priorities of most Southeast Asian countries, namely in the areas of counterterrorism, anti-smuggling (drugs and arms), public health, and economic development. A more holistic approach to capacity building that takes into consideration a range of national priorities will be beneficial not only for a global nonproliferation regime but for developmental and national security goals of

Southeast Asian countries. Adopting this approach will also pave the way to a wider range of potential donor streams allocated for the broader developmental needs of the region.

There are excellent opportunities for technical assistance and expertise sharing at the regional level. Singapore, Japan, South Korea, Hong Kong, and others have expertise in developing and maintaining strategic control systems that can be valuable for their neighbors in Southeast Asia. Japan is already very active in providing training and engaging its Asian neighbors in expertise-sharing exercises. Japan's Center for Information on Security Trade Control holds annual Asian export-control seminars and organizes regular outreach events in Japan and abroad aimed at strengthening strategic trade controls in the region.¹⁰¹

Regional organizations could play a key role in the implementation of UNSCR 1540. They have underutilized potential to become perfect forums for even more concerted efforts to implement the resolution. For example, ASEAN might consider filing a request for UNSCR 1540 assistance on behalf of the region. This would lift the burden from some countries in the region that do not have capacity to do it on their own. 102 One regional organization could lead the process of developing relevant model legislation based on the expertise already available in the region and external assistance. 103 Such model legislation should not be an imposed blueprint but rather serve as guidance to countries seeking to adopt domestic legislation to comply with UNSCR 1540. A regional organization could also serve as a clearinghouse for expertise-sharing and assistance, and develop regional standards and benchmarks for domestic proliferation controls. Regional organizations could provide forums for coordination between regulating agencies (controlling WMD-sensitive goods) and for harmonization of procedures between law-enforcement agencies. Finally, given the region's emphasis on economic development and trade, economyfocused organizations such as APEC could become indispensable in reaching out to industry to raise awareness of proliferation risks and help it adopt internal compliance practices. Regional efforts on the latter will be an important addition to any efforts undertaken at the national level. The benefit of a regional approach lies in pulling together expertise and resources from various countries and ensuring a more even development of internal compliance practices across the region. The implementation of UNSCR 1540 in Southeast Asia will not be easy, but it will be critical for international security and will bring economic and security benefits to the region.

Endnotes

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- "International Cooperation," CISTEC, http://www.cistec.or.jp/english/service/inter.html.
- To date, two regional organizations have filed requests for assistance to the UNSCR 1540 Committee. The Caribbean Community requested assistance with funding the position of a regional coordinator for UNSCR 1540 to help member states with the implementation process; professional support to assist with drafting of relevant legislation; and for a regional seminar on export controls. The Central American Integration System requested funding for the position of a regional coordinator for UNSCR 1540. "Assistance Requested by Member States: Excerpts from National Reports Submitted Pursuant to UNSCR 1540 (2004)," UNSCR 1540 Committee, http://www.un.org/sc/1540/requestsforassistance.shtml.
- There is already a precedent for this. The Caribbean Community (CARICOM) requested and received assistance to develop a reference legal framework that would help member states comply with UNSCR 1540.

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