

A Regional Approach to WMD Nonproliferation in the Asia-Pacific

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Summary

The Asia-Pacific region epitomizes the type of proliferation challenges the international community faces. Globalization turned the region into one of the most important international trade hubs, the home to leading dual-use companies, and the anticipated site of the world's most significant growth in nuclear energy. While those trends are beneficial, they also create new sources of weapons of mass destruction (WMD) proliferation.

Several existing initiatives laid the groundwork for regional cooperation on WMD nonproliferation. But there are still a number of steps that governments in the Asia-Pacific region can take to promote greater regulation and transparency:

- **Engage the private sector.** Economy-focused organizations such as the Asia-Pacific Economic Cooperation (APEC) could reach out to companies to raise awareness of proliferation risks and help them to adopt internal practices that are in compliance with governments' export control regulations. Regional incentives for cooperation could also be established.
- **Establish a clearing house for regional expertise sharing and assistance.** Regional security will suffer if countries lack the resources and expertise to implement proliferation controls consistently. A regional forum could collect region-specific information so countries can benefit from each other's expertise.
- **Request United Nations Security Council Resolution 1540 assistance as a region.** Complying with the resolution means all states should establish adequate domestic controls to prevent WMD proliferation—which requires resources and expertise that some countries do not possess. Submitting requests for assistance with implementing such controls to the Resolution 1540 Committee as a region rather than as individual states could make the process significantly easier.

- **Develop regional standards for domestic proliferation controls and model strategic trade control legislation.** A regional technical group, formed under the auspices of one of the existing regional organizations, could develop tangible shared objectives to facilitate the process of identifying and prioritizing the steps each country must take to prevent proliferation. Governments might also consider developing region-based model strategic trade control legislation.
- **Establish a forum for regional coordination between regulatory and enforcement agencies.** Asia-Pacific governments would benefit if their agencies involved in controlling WMD-sensitive goods could regularly interact with their regional counterparts. Licensing agencies could share information on companies that raised suspicion in the past, and enforcement agencies could share information on export control violations and suspicious transactions.

By working together, Asia-Pacific governments can better adapt to the proliferation threats posed by today's economic, political, and security realities.

Twenty-First Century Threats

The threats posed by the proliferation of weapons of mass destruction have gradually changed over the past twenty years. During the Cold War, military and defense industries were the main sources of proliferation. Over the last decade, the rapid development and spread of technology, increased trade in dual-use goods—also known as strategic trade—and the expansion of nuclear energy programs has added to the pool of potential sources of proliferation.

The Asia-Pacific region epitomizes the type of proliferation challenges the international community has to grapple with in the twenty-first century. Globalization has turned the region into one of the most important trade hubs, and the Asia-Pacific is home to the world's leading dual-use companies. The region is also expected to see the world's most significant growth in the nuclear energy field.

While those trends are beneficial in many ways, they also create new sources of WMD proliferation. States should look for more creative ways to use existing instruments to address those new threats. Measures taken at the regional level in addition to national efforts can provide insurance against WMD proliferation.

Challenges

Advances in high-tech industries and the blurring of lines in the production of goods for civilian and military use are central to the changing landscape of WMD threats. Globalization and the broad applications for dual-use goods and technology in everyday life result in constant flows of proliferation-sensitive

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items across borders. And this poses a real danger. The gradual acquisition of components and technology from various sources can enable a state or nonstate actor to build a WMD program.

In the past, the sole focus was on states and on how to prevent their illegal acquisition of WMD goods and technology. In recent years, the focus broadened to include nonstate actors. The challenge is not only how to prevent countries like North Korea from acquiring technology that might help it with its military program; it is also about how to prevent terrorist organizations such as al-Qaeda and proliferation or procurement networks from getting a hold of material and technology that would enable them to construct a crude WMD device. Some enterprising actors in search of profit make regular attempts to facilitate trade in dual-use items, and they are not concerned about where such items end up and or the purposes for which they are used.

The world is increasingly dependent on dual-use goods and technology. To name just a few examples, some semiconductors, which are indispensable in advanced electronics—including computers—can also be used in a variety of military equipment, such as satellites, infrared imaging products, and transistors. Freeze-drying technology used in the food industry for making instant coffee or instant noodles, for example, is similar to the technology used in biological-warfare research. Encryption technology has many civilian applications—for instance, in train-signaling systems—but malicious actors can also use it to communicate without being detected by law enforcement agencies. And satellite technology has a range of civilian applications—like weather monitoring—as well as military uses, such as missile guidance.¹

The Asia-Pacific is one of the most dynamic regions in terms of high-tech industries and strategic trade. The region is home to some of the world's largest producers of high-tech goods and technology, including those of a dual-use nature. Japan, China, South Korea, and Taiwan are leaders in the advanced high-tech products industry, with Japan's Mitsubishi, China's NORINCO Corporation, South Korea's Samsung Electronics, and the Taiwan Semiconductor Manufacturing Company among the world's foremost high-tech companies.

The region is also a major transit and transshipment hub for maritime cargo. Eight out of the world's ten busiest seaports are in China, Singapore, and South Korea.² In addition, seaports in Japan, Malaysia, and Taiwan are among the world's top 50 in terms of cargo volume.³ High volumes of trade and cargo place additional responsibility on governments to adequately control the flow of goods to prevent any smuggling of sensitive items.

The Asia-Pacific has already faced these very real WMD proliferation challenges. Proliferation networks and irresponsible traders were able to procure and transfer WMD-sensitive technology and goods from Malaysia, Taiwan, China, and Japan to Iran, North Korea, and Pakistan, among other examples.

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Moreover, the growth of nuclear energy programs worldwide necessarily creates additional proliferation threats. Two stages of the nuclear fuel cycle—uranium enrichment and spent-fuel reprocessing—are proliferation sensitive. The technology used to enrich uranium to levels suitable for use in nuclear fuel is the same technology that can be used to enrich uranium to higher levels for use in a nuclear weapon. The development of nuclear energy programs results in greater flows of dual-use technology and materials that might be diverted to state or nonstate actors. Construction of a nuclear power plant requires the procurement of thousands of items, almost 90 percent of which can be considered dual-use.

This is of particular concern to the Asia-Pacific because many countries in the region either already have or are considering developing nuclear energy programs. Nuclear energy is projected to grow most significantly in Asia, especially in China, Japan, and South Korea (though the Fukushima tragedy may have changed some of Japan’s plans). A number of countries, such as Vietnam and Indonesia, plan to introduce nuclear energy programs, and there is a debate in Malaysia about whether to introduce nuclear power to the country’s energy mix.

The region is also facing traditional WMD proliferation threats such as the potential transfer of nuclear material and smuggling of radiological material. Several countries in the region have stocks of highly enriched uranium and plutonium as part of their military or civilian nuclear programs. China and Japan are among the world’s largest holders of highly enriched uranium and plutonium, respectively.⁴

In addition, the Asia-Pacific region is the most directly affected by the proliferation challenge posed by North Korea’s nuclear weapons program. Stability and security of the region depends on whether the North will continue to strengthen its military nuclear program or agree to denuclearize. Even though countries near North Korea are the most at risk, Pyongyang managed to procure some of the components and technology for its nuclear weapons program from its neighbors in the region, largely through exploiting weaknesses in international export controls.⁵ Similarly, Iran has succeeded in using the Asia-Pacific region as a transshipment hub for the acquisition of goods that could be used in the development of WMD.

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An Integrated Approach

With the proliferation threat stemming from expanding dual-use industries, strategic trade, and civilian nuclear energy programs, solutions to proliferation challenges lie in the economic, trade, and development spheres. The international community should take a holistic approach to meeting nonproliferation and economic objectives, seeking ways to prevent WMD proliferation while facilitating economic growth, development, and trade. This will help address developing countries’ concerns that adopting proliferation controls that are too stringent would negatively affect economic development and trade.

The development of efficient strategic trade controls designed to prevent WMD proliferation can in fact benefit economic development.⁶ Clearly defined procedures for strategic trade can facilitate trade operations for companies working in high-tech and other relevant industries, resulting in more transparency and more efficiency in how companies trade. And more streamlined and efficient customs procedures introduced as part of strategic trade control systems will likely result in higher customs revenues. By adopting strategic trade controls and thus strengthening domestic proliferation prevention, countries create better conditions for trade in technology and high-tech goods.

Companies in the countries with strong strategic trade controls benefit from greater import opportunities. Domestic legislation in key supplier states prevents their companies from exporting sensitive products and technologies to entities and individuals in those countries that are known to have weak proliferation controls. At the same time, key supplier states facilitate trade with countries that are known to have strong proliferation controls.

Currently, the Asia-Pacific region's record on strategic trade controls is mixed. Taiwan, Japan, China, South Korea, and Singapore lead with advanced strategic trade control systems, and Malaysia developed and adopted relevant legislation in 2010.⁷ But other countries, such as Vietnam, Thailand, and the Philippines, do not yet have strategic trade control laws at all.

Many countries around the world admit that investing in WMD proliferation controls cannot possibly be their priority in the face of more immediate and pressing challenges, such as arms and drugs smuggling and terrorist activities, to name just a few. In this context, it is important to remember that WMD nonproliferation measures can often contribute to meeting these other objectives.

Anti-WMD measures on one hand, and anti-drug and anti-arms smuggling measures, on the other, overlap in several key areas. This fact calls for greater integration of approaches when dealing with these varied challenges. Investment in personnel and training to prevent WMD proliferation can also be an investment in more efficient controls against arms and drug trafficking. Legislation can grant broad powers to enforcement officers for search, seizure, and arrest if a violation involving drugs, arms, and WMD-sensitive goods is suspected. The same equipment used to detect drugs and arms, such as x-ray machines and portable container scanners, can also be used to identify WMD-sensitive items, and the techniques for detecting potential violations are similar for cases involving drugs, arms, and sensitive goods. Finally, intra-agency cooperation between all key actors (licensing, enforcement, and prosecution agencies) and close interagency cooperation are crucial for implementing comprehensive controls of WMD-sensitive goods.

Measures to prevent WMD proliferation and to thwart terrorist activities are also mutually reinforcing and countries in the region would benefit from addressing

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proliferation and terrorist threats as one broader challenge. Controls on financial activities and government authority to monitor and, if necessary, freeze financial assets can be used to monitor the operations of terrorist groups as well as the transfer of proliferation-sensitive goods. Additionally, the strengthened capacity to monitor flows of arms and people across borders for the purposes of preventing WMD proliferation allows governments to detect movements of militants and arms intended for terrorist purposes.

These considerations are especially relevant for Southeast Asia, where several terrorist organizations, including al-Qaeda, al-Jama'a al-Islamiyya, Abu Sayyaf, and the Moro Islamic Liberation Front, operate. These groups can potentially be motivated to seek WMD goods, and they are in a position to organize illegal transfers of goods, people, and finances thanks their extended networks throughout the countries in the region. Piracy in Southeast Asia is another related challenge. Despite significant improvements in combatting piracy, Southeast Asia remains the third-most-dangerous region in the world for pirate attacks, after the Gulf of Aden and Somalia area and Nigeria.⁸ Pirate activities are relevant to the proliferation threat because malicious actors seeking to procure WMD-sensitive cargo can hire pirate groups to attack ships carrying such cargo, or pirates can target the vessels themselves with the aim of selling the cargo or holding it for ransom.

Similarly, nonproliferation and public health objectives can benefit from an integrated approach. Domestic measures taken to implement proliferation controls on dangerous pathogens, sensitive bioagents, and technology can directly benefit a government's 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. That is especially important for the Asia-Pacific region, which has struggled with a range of endemic diseases.⁹

Regional Measures

Asia-Pacific countries have taken laudable steps to curb the spread of WMD proliferation. For instance, in 1995, Southeast Asian states established a Southeast Asian Nuclear-Weapon-Free Zone. They agreed not to seek nuclear weapons or to assist any other third country with the acquisition of nuclear weapons.¹⁰ There is a range of forums and initiatives at the Association of Southeast Asian Nations (ASEAN) level that provide platforms for cooperation on relevant matters, such as ASEAN's Nuclear Energy Regulators Network, Maritime Forum, Defense Ministers' Meeting-Plus, and exercises on preparation for pandemics.¹¹ The ASEAN Regional Forum (ARF) hosts discussions on issues directly pertinent to WMD nonproliferation.¹² Of special note are ARF workshops on biorisk management and inter-sessional meetings on maritime security, counterterrorism, and transnational crime, and nonproliferation and disarmament.¹³ And the Asia-Pacific

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Economic Cooperation (APEC), while not a forum traditionally associated with WMD nonproliferation, has launched a number of relevant initiatives designed to strengthen supply chain security.¹⁴

Still, there are a number of additional steps Asia-Pacific governments can take at the regional level to help further strengthen WMD nonproliferation efforts:

Engage the Private Sector

Industry is at the heart of the success or failure of attempts to address WMD proliferation challenges. Diligence exercised by companies can significantly reduce the burden on governments that are already stretched too thin. The more companies comply with governments' export control regulations, the less governments have to spend on investigating and penalizing violations. Importantly, companies can act as the first line of defense against proliferation, as they are in the best position to recognize suspicious orders.

Economy-focused organizations such as APEC can become indispensable in reaching out to companies to raise awareness of proliferation risks and help them adopt internal compliance practices. APEC has been actively reaching out to private industry on supply-chain security. Its Secure Trade in the APEC Region (STAR) initiative is a good example of how trade, antiterrorism, and nonproliferation objectives can be addressed concurrently. STAR was designed to minimize risks to supply chains, especially from terrorist attacks. The initiative's strengths lie in the partnerships it creates between the governments and private industry. APEC Private Sector Supply Chain Security Guidelines, for example, provide a set of very specific recommendations to companies on how to enhance the security of trade transactions.¹⁵ Most of the STAR-recommended measures, if implemented, could significantly decrease the risk of sensitive items being diverted for unauthorized use. APEC can build upon the initiatives it is already undertaking to further promote business practices.

In addition to the incentives that national governments are willing to offer compliant companies, such as facilitated export-licensing procedures, regional incentives could be established at the APEC level. For example, companies could be assigned regionwide "trusted company" status that would provide easier customs and border procedures along with other preferential treatments.

Establish a Clearing House for Regional Expertise Sharing and Assistance

The Asia-Pacific region is home to countries with varying levels of resources and expertise in the area of implementing domestic WMD proliferation controls. While an overwhelming majority of countries in the region demonstrate a political commitment to nonproliferation values, many of them face challenges in developing relevant controls due to a lack of resources or expertise. Regional security will suffer as a result of this inconsistency, with some countries implementing advanced proliferation controls and their neighbors implementing few if any.

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A “neighbors helping neighbor” strategy, in which countries in the region assist each other, holds promise. One of the regional forums, such as APEC, might consider taking up the role of a clearing house of regional expertise and assistance. While international assistance and expertise offered to countries with limited resources is important, the international community cannot fully appreciate certain region-specific peculiarities of economic, geographic, and societal conditions. Tailored expertise and assistance from within the region would make progress in this area more sustainable. Regional coordination would ensure that the Asia-Pacific maximizes the utility of unevenly available resources and expertise.

Request United Nations Security Council Resolution 1540 Assistance as a Region

UN Security Council Resolution 1540 requires all states to develop and maintain domestic WMD proliferation controls. It imposes an obligation on all states not to support by any means nonstate actors in developing, acquiring, manufacturing, possessing, transporting, transferring, or using weapons of mass destruction and their delivery systems. That means that all states should adequately account for and secure sensitive materials, as well as put efficient border and export controls in place.¹⁶ In order to comply with the resolution, countries should take a number of steps ranging from developing appropriate legislation to building actual capacity to implement proliferation controls. For some countries, implementing the resolution requires resources and expertise that they do not readily possess.

The Resolution 1540 Committee at the United Nations acts as a global clearing house for assistance in implementing the resolution. Countries can file requests for assistance with the committee, and the committee matches their requests with donor offers. While developing countries in the region would benefit immensely from external assistance, it is more challenging for their governments to apply for such assistance individually, for two key reasons: They do not always know exactly what type of assistance they need in order to meet the required standard and admitting gaps in individual state systems is a politically sensitive business. Therefore, regional requests for assistance under Resolution 1540, for example, filed by ASEAN on behalf of the Southeast Asian countries, would significantly facilitate the process. Two models exist in the Caribbean and Central America—both the Caribbean Community and the Central American Integration System as blocs requested and received assistance with the implementation of Resolution 1540.¹⁷

Develop Regional Standards and Benchmarks for Domestic Proliferation Controls and Model Strategic Trade Control Legislation

A regional technical group, formed under the auspices of one of the existing regional organizations, could potentially develop standards and benchmarks for domestic proliferation controls in Asia-Pacific countries. By developing standards and benchmarks, and thus tangible shared objectives, countries would create reference points that would facilitate the process of identifying and prioritizing the steps each country must take.

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This process, however, has inherent challenges. First, the development of proliferation controls is a sovereignty issue for each country in the region, and some might be reluctant to accept any standards imposed by others. An agreement to treat regional standards and benchmarks as guidance and not prescription can alleviate this problem.

Second, due to a significant gap in resource availability across the region, any shared standards risk either being too unrealistic for developing countries or relatively weak for the developed. While neither scenario is ideal, simply discussing such issues will be beneficial for shared understanding of priorities regardless of whether the agreed standards are too low or too high.

The Organization for Security and Cooperation in Europe's Best Practice Guide on UN Security Council Resolution 1540 Export Controls and Transshipment can serve as a possible example.¹⁸ As a start, the standards can include practical guidance on how to develop and operationalize key elements of comprehensive strategic trade controls. In fact, regional experts have already developed a document that can serve as a stepping stone for this effort. The Council on Security Cooperation in the Asia Pacific (CSCAP), a forum in which scholars, experts, and officials in their private capacity discuss political and security issues, has developed Guidelines for Managing Trade in Strategic Goods.¹⁹ Consideration and adoption of these guidelines by ARF can be the first step toward regionwide standards for the proliferation controls.

Governments in the region might also consider jointly developing model legislation on strategic trade controls. But a "one-size fits all" approach will not work. Conditions and access to resources vary significantly across the range of countries, and one state's perfect law cannot be simply transferred to another. Still, for many nations with limited expertise, receiving some guidance on the essential components of a strong strategic trade control system would be invaluable, especially if such guidance accounts for specific regional conditions.

Establish a Forum for Regional Coordination Between Regulatory and Enforcement Agencies

The implementation of domestic WMD-proliferation controls depends on the involvement of various government agencies: licensing agencies that control the export and import of sensitive goods, law enforcement agencies to ensure efficient customs and border controls as well as the prosecution of violations, and agencies with technical expertise to provide technical support for licensing and enforcement bodies. National governments would benefit if their agencies involved in controlling WMD-sensitive goods had an opportunity to regularly interact with their counterparts in the region. For example, licensing agencies could share information on the companies that raised suspicion in the past as well as on license denials. An example of this type of cooperation is already evident in the information sharing among the members of the multilateral export control regimes. Enforcement agencies can agree to share information on export control

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violations as well as intelligence pertaining to suspicious transactions involving WMD-sensitive goods.

Regional coordination will significantly decrease the likelihood of malicious actors exploiting large amounts of and relatively unrestricted intra-regional trade for unauthorized acquisition or the smuggling of sensitive goods.

Utilize the Master Plan on ASEAN Connectivity to Pursue Nonproliferation Objectives

The Master Plan on ASEAN Connectivity of 2010 is a broad undertaking that has some relevance to WMD nonproliferation efforts. The Master Plan represents ASEAN's strategy to create an integrated community in which people, goods, and services travel freely. States should pursue the goal of greater connectivity while also focusing on maintaining efficient controls of flows of people, goods, and services to prevent the unauthorized movement of sensitive goods.

Conclusion

As a center of high-tech industries, strategic trade, and nuclear power development, the Asia-Pacific region represents an at-risk corner of the globe for WMD proliferation. While several existing initiatives have laid the groundwork for regional cooperation on WMD nonproliferation, there are a number of steps governments of the region can take to promote greater regulation and transparency.

Most notably, national governments can work together to establish intra-regional networks and forums to facilitate the exchange of expertise and the provision of assistance in the area of proliferation controls, and they can take steps to ensure greater interoperability of enforcement forces. In addition, the Asia-Pacific governments can develop standards and benchmarks for domestic proliferation controls and use existing regional forums, such as APEC, to more actively engage private industry in preventing WMD proliferation.

Given today's security environment, the international community must find innovative and practical ways to manage the proliferation threats in the twenty-first century. And there is a profound opportunity and necessity to do so in regions like the Asia-Pacific that are experiencing rapid economic and political changes.

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Notes

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