

Building Counterproliferation Capabilities

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TABLE OF CONTENTS

OVERVIEW	1
I. REPORT PURPOSE AND COVERAGE	1
II. PRIORITY COUNTERPROLIFERATION TASKS.....	4
III. PRIORITY COUNTRIES AND SELECTED RECOMMENDATIONS.....	10
SOUTH AND SOUTHEAST ASIA.....	21
I. REGIONAL SETTING	21
II. KEY REGIONAL COUNTERPROLIFERATION CHALLENGES AND TASKS	30
III. NATIONAL ASSESSMENTS	34
IV. PARTNERSHIP OPPORTUNITIES.....	48
V. RECOMMENDATIONS.....	53
LATIN AMERICA.....	61
I. REGIONAL SETTING	61
II. KEY REGIONAL COUNTERPROLIFERATION CHALLENGES AND TASKS	72
III. NATIONAL ASSESSMENTS	77
IV. PARTNERSHIP OPPORTUNITIES.....	90
V. RECOMMENDATIONS.....	94

TABLES

A. COMPARISION OF NUCLEAR AND BIOLOGIAL THREATS	3
B. PRIORITY COUNTERPROLIFERATION TASKS: COUNTRY STATUS – SOUTH/SOUTHEAST ASIA.....	13
C. PRIORITY COUNTERPROLIFERATION TASKS: SUMMARY RECOMMENDATIONS – SOUTHEAST ASIA AND PAKISTAN ..	14
D. PRIORITY COUNTERPROLIFERATION TASKS: COUNTRY STATUS – LATIN AMERICA.....	19
E. PRIORITY COUNTERROLIFERATION TASKS: SUMMARY RECOMMENDATIONS – LATIN AMERICA.....	20
F. LATIN AMERICAN COUNTERPROLIFERATION COUNTRY SUMMARY	86

OVERVIEW

I. REPORT PURPOSE AND COVERAGE

This report is designed to define global counterproliferation issues and requirements, with specific recommendations tailored to the different situations of individual regions and countries. It aims to provide a template for identifying needs and opportunities for building counterproliferation capabilities that could be applied worldwide, but does so by focusing on two very different regions. The first, South/Southeast Asia, is widely recognized as acutely exposed to the threats of weapons of mass destruction (WMD) proliferation and terrorism. The second, Latin America, is seldom considered an area of WMD proliferation concern, by states inside or outside the region. This study challenges that perception, on the grounds that: Latin America's drug trafficking and money laundering activities might readily be applied to WMD proliferation; and proliferators now can base their operations anywhere, and prefer locations where they can avoid detection. For these reasons, Latin America must not be overlooked in any consideration of WMD threat and response.

The country coverage of the study is as follows:

- South/Southeast Asia:

South Asia – India, Pakistan, Bangladesh, Bhutan, Nepal and Sri Lanka;

Southeast Asia – Burma, Thailand, Vietnam, Laos, Cambodia, Indonesia, Timor Leste, Singapore, Malaysia, Brunei, Philippines, Australia, New Zealand and Papua New Guinea.

- Latin America:

North America – Bermuda, Mexico;

Central America and Caribbean – Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Cayman Islands, Costa Rica, Cuba, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Haiti, Honduras, Jamaica, Montserrat, Netherlands Antilles, Nicaragua, Panama, Saint Barthelemy, St. Kitts and Nevis, St. Lucia;

South America – Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Falkland Islands, French Guiana, Guyana, Paraguay, Peru, South Georgia and South Sandwich Islands, Suriname, Uruguay, Venezuela.

This report draws exclusively from unclassified, open sources. Central to the study were meetings and discussions with U.S. Central Command (USCENTCOM), U.S. Pacific Command (USPACOM), U.S. Southern Command (USSOUTHCOM), Joint Interagency Task Force

(JIATF)-South, the National Security Staff, Office of the Secretary of Defense (OSD), Departments of State and Energy (DOE), and the Defense Threat Reduction Agency (DTRA).

The principal focus of this report is on nuclear and biological proliferation threats, as the most catastrophic and most likely near-term dangers, respectively.¹ Chemical weapons are important threats, but not as high a priority as nuclear and biological. Still, many of the recommendations in this study would apply to chemical weapons as well as to nuclear and/or biological ones.

As outlined in Table A, from the 2009 National Academy of Sciences report on “CTR 2.0,” nuclear and biological proliferation by state and non-state actors present challenging, but quite different, problems.

¹ The Commission on the Prevention of WMD Proliferation and Terrorism, co-chaired by former Senators Bob Graham and Jim Tallent, concluded that “unless the world community acts decisively and with great urgency, it is more likely than not that a weapon of mass destruction will be used in a terrorist attack somewhere in the world by the end of 2013. The Commission further believes that terrorists are more likely to be able to obtain and use a biological weapon than a nuclear weapon.” *World at Risk: The Report of the Commission on the Prevention of WMD Proliferation and Terrorism*, December 2008, p. xv.

TABLE A²

COMPARISON OF NUCLEAR AND BIOLOGICAL THREATS

	State Nuclear Threat	Non-State Nuclear Threat	State Biological Threat	Non-State Biological Threat
Detectable signature?	Yes	Maybe	Maybe	Maybe
Barriers to development	High	Very High	Moderate	Moderate
Technical experts	Few	Very Few	Many	Very Few
Casualty potential	Very High	Very High	Very High to Very Low	High to Very Low
Is technical capability a limitation?	Yes	Yes	No	Yes
Availability of materials	Few	Few	Many	Many
Access to materials	Poor	Very Poor	Good	Poor
Intelligence target	Moderately Easy	Moderately Hard	Very Hard	Very Hard
Dual Use	Yes	N/A	Yes	N/A
Trackable detectable?	Yes	Maybe	Maybe	Maybe
Attribution possibility	High to Moderate	Moderate	Low	Very Low

² David Franz, “Appendix H: A Comparison of the Characteristics of Six Weapons Systems from the Perspective of a State or Terrorist Organization,” in National Academy of Sciences, Committee on Strengthening and Expanding the Department of Defense Cooperative Threat Reduction Program, Committee on International Security and Arms Control, Policy and Global Affairs, *Global Security Engagement: A New Model for Cooperative Threat Reduction*, Washington, DC, The National Academies Press, 2009, p. 156.

II. PRIORITY COUNTERPROLIFERATION TASKS

This report analyzes counterproliferation capabilities and requirements for each of the two regions in terms of the same priority counterproliferation tasks. However, it does not do so in the same level of detail or in the exact same ways. Those differences in coverage of South/Southeast Asia and Latin America in this study reflect significant differences between the regions, including in the perception of WMD proliferation and terrorism threats, the number of initiatives and activities aimed at countering proliferation, and the agendas and maturity of various formal and informal regional groupings. Another key difference is that we have identified four states in South/Southeast Asia – Australia, New Zealand, Singapore and India – that are or might become our partners in helping their neighbors to build counterproliferation capabilities. No Latin American state is yet at that point, although Brazil, Argentina and/or Chile might reach it in the future.

Most of the priority counterproliferation tasks identified in this study are spelled out in various international political and legal statements over the past decade that are either binding on all states or have won wide acceptance. Those include: the Statement of Principles of the Proliferation Security Initiative (PSI); the Statement of Principles of the Global Initiative to Combat Nuclear Terrorism (GI); the 2005 International Health Regulations (IHRs) of the World Health Organization (WHO); the work plan and national commitments from the April 2010 Nuclear Security Summit; United Nations Security Council Resolutions (UNSCRs) 1540 and 1887, on overall proliferation issues; and UNSCRs 1874 and 1929 concerning North Korea and Iran, respectively.

The priority counterproliferation tasks addressed in this report are:

Threat Awareness. This is the bedrock. States will not invest personnel, financial, military and intelligence resources to counter WMD proliferation and terrorism unless they appreciate the seriousness of the threat and its direct relevance to their nations and regions.

Information Sharing. The Statements of Principles for PSI and the GI, as well as the IHRs, underscore the importance of information sharing in countering WMD proliferation and terrorism:

- PSI: “2. Adopt streamlined procedures for rapid exchange of relevant information concerning suspected proliferation activity, protecting the confidential character of classified information provided by other states as part of this initiative....”³
- GI: “8. Promote information sharing pertaining to the suppression of acts of nuclear terrorism and their facilitation, taking appropriate measures consistent with their national

³ This and all subsequent references in this study to the PSI Statement of Principles are from *Interdiction Principles for the Proliferation Security Initiative*, September 4, 2003, at <http://www.state.gov/t/isn/c27726.htm>.

law and international obligations to protect the confidentiality of any information which they exchange in confidence.”⁴

- IHRs: Article 5(1): “Each State Party shall develop, strengthen and maintain, as soon as possible but no later than five years from entry into force of these Regulations for that State Party, the capacity to detect, assess, notify and report events [that may constitute a public health emergency of international concern within its territory].”⁵

National Legal Frameworks. United Nations Security Council Resolution (UNSCR) 1540 is particularly strong in requiring all states to implement effective export controls and to criminalize proliferation by non-state actors:

- “2. *Decides also* that all States...shall adopt and enforce appropriate effective laws which prohibit any non-State actor to manufacture, acquire, possess, develop, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery, in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist or finance them;
- 3. *Decides also* that all States shall ... [e]stablish, develop, review and maintain appropriate effective national export and trans-shipment controls over such items [WMD, means of delivery and related materials], including appropriate laws and regulations to control export, transit, trans-shipment and re-export and controls on providing funds and services related to such export and trans-shipment such as financing, and transporting that would contribute to proliferation, as well as establishing end-user controls; and establishing and enforcing appropriate criminal or civil penalties for violations of such export control laws and regulations.”⁶
- Closely related, Principle 6 in the GI Statement of Principles calls on states to “[e]nsure adequate respective national legal and regulatory frameworks sufficient to provide for the implementation of appropriate criminal and, if applicable, civil liability for terrorists and those who facilitate acts of nuclear terrorism.”

Denial, Detection and Interdiction. Three closely related counterproliferation tasks are: denial of access to WMD, related materials, technology and financing; detection of proliferation holdings or shipments; and interdiction of proliferation shipments, to include seizure of proliferation cargoes and other illicit WMD-related materials and assets. Those tasks are inherently difficult given the dual-use nature of many nuclear and biological materials and

⁴ This and all subsequent references in this study to the GI Statement of Principles are from *Statement of Principles*, at <http://www.state.gov/t/isn/c37071.htm>.

⁵ This and all subsequent references in this study to the IHRs are from World Health Organization, *International Health Regulations (2005), Second Edition*, 2008.

⁶ This, and all subsequent references in this study to UNSCR 1540 are from United Nations Security Council, *Resolution 1540 (2004): Adopted by the Security Council at its 4956th meeting, on 28 April 2004*, S/RES/1540(2004), 28 April 2004.

activities. The problem is particularly acute regarding biological proliferation, given the widespread availability of dangerous pathogens in nature and the correspondingly extensive, legitimate public health work with those materials.

Denial of Access to WMD, Materials and Financing entails the separate, but closely related, elements of full accounting and security for WMD and related materials in storage and transit, and prevention of proliferation financing. Border security is discussed below under the “detection” task, but it also plays an important role in denying access to WMD and materials; those links underscore the close relationship among the various elements of “denial, detection and interdiction.”

- The relevant tasks are spelled out in the GI Statement of Principles as follows: develop, if necessary, and improve accounting, control and physical protection systems for nuclear and other radioactive materials and substances; and enhance security of civilian nuclear facilities;
- UNSCR 1540 establishes the formal obligation to control WMD-related materials and delivery means: “(a) Develop and maintain appropriate effective measures to account for and secure such items in production, use, storage or transport; (b) Develop and maintain appropriate effective physical protection measures.”
- The PSI Statement of Principles includes a commitment on another aspect of WMD and material security: “4a. Not to transport or assist in the transport of any such cargoes to or from states or non-state actors of proliferation concern, and not to allow any persons subject to their jurisdiction to do so.”
- Finally, the Communiqué and Work Plan of the April 2010 Nuclear Security Summit are devoted entirely to the requirement to maintain and improve security of nuclear material in storage and transport, and to assist others to do so (to the extent feasible and required). The Nuclear Security Summit supported the goal announced by President Obama at Prague in April 2009 to secure all vulnerable nuclear materials worldwide within four years.

Detection of WMD, Related Materials and Assets

- The GI Statement of Principles provides a clear statement of the requirement to detect nuclear and radioactive materials: “Improve the ability to detect nuclear and other radioactive materials and substances in order to prevent illicit trafficking in such materials and substances, to include cooperation in the research and development of national detection capabilities that would be interoperable.” The emphasis in the GI Statement of Principles on nuclear detection demonstrates that the requirement for timely WMD-related detection is most appreciated in relation to the threat of nuclear terrorism.
- UNSCR 1540 creates a formal obligation to maintain effective border controls. In doing so, it recognizes the multiple roles border controls perform in countering WMD and missile proliferation: “(c) Develop and maintain appropriate effective border controls

and law enforcement efforts to detect, deter, prevent and combat...illicit trafficking and brokering in such items.”

Interdiction. The GI and PSI Statements of Principles outline the relevant tasks as follows:

- GI: “Improve capabilities... to search for, confiscate, and establish safe control over unlawfully held nuclear or other radioactive materials and substances or devices using them.”
- PSI: “Take specific actions in support of interdiction efforts regarding cargoes of WMD, their delivery systems, or related materials, to the extent their national legal authorities permit and consistent with their obligations under international law and frameworks, to include:
 - “... To take action to board and search any vessel flying their flag in their internal waters or territorial seas, or areas beyond the territorial seas of any other state, that is reasonably suspected of transporting such cargoes to or from states or non-state actors of proliferation concern, and to seize such cargoes that are identified.
 - “... To take appropriate actions to (1) stop and/or search in their internal waters, territorial seas, or contiguous zones (when declared) vessels that are reasonably suspected of carrying such cargoes to or from states or non-state actors of proliferation concern and to seize such cargoes that are identified; and (2) to enforce conditions on vessels entering or leaving their ports, internal waters or territorial seas that are reasonably suspected of carrying such cargoes, such as requiring that such vessels be subject to boarding, search, and seizure of such cargoes prior to entry.
 - “To (a) require aircraft that are reasonably suspected of carrying such cargoes to or from states or non-state actors of proliferation concern and that are transiting their airspace to land for inspection and seize any such cargoes that are identified; and/or (b) deny aircraft reasonably suspected of carrying such cargoes transit rights through their airspace in advance of such flights.
 - “If their ports, airfields, or other facilities are used as transshipment points for shipment of such cargoes to or from states or non-state actors of proliferation concern, to inspect vessels, aircraft, or other modes of transport reasonably suspected of carrying such cargoes, and to seize such cargoes that are identified.”
- UNSCR 1540 also includes a mild endorsement of international action against proliferation, such as PSI. It “*calls upon* all States, in accordance with their national legal authorities and legislation and consistent with international law, to take cooperative action to prevent illicit trafficking in nuclear, chemical or biological weapons, their means of delivery, and related materials.”
- UNSCR 1874, passed after North Korea’s second nuclear test in May 2009, goes considerably further:

“11. *Calls upon* all States to inspect, in accordance with their national authorities and legislation, and consistent with international law, all cargo to and from the DPRK, in their territory, including seaports and airports, if the State concerned has information that provides reasonable grounds to believe the cargo contains items the supply, sale, transfer, or export of which is prohibited by [UNSCR 1718 or 1874]...;

“12. *Calls upon* all Member States to inspect vessels, with the consent of the flag State, on the high seas, if they have information that provides reasonable grounds to believe that the cargo of such vessels contains items the supply, sale, transfer, or export of which prohibited by [UNSCR 1718 or 1874]...;

“13. *Calls upon* all States to cooperate with inspections pursuant to paragraphs 11 and 12, and, if the flag State does not consent to inspection on the high seas, decides that the flag State shall direct the vessel to proceed to an appropriate and convenient port for the required inspection by the local authorities....

“14. *Decides* to authorize all Member States to, and that all member States shall, seize and dispose of items the supply, sale, transfer, or export of which is prohibited by [UNSCR 1718 or 1874]...”⁷

- UNSCR 1929, passed on June 9, 2010, includes similar – if slightly weaker – provisions targeted on Iran.⁸

Consequence Management. Measures to mitigate the consequences of WMD use have traditionally been contemplated in terms of a state WMD attack. Increasingly, however, the requirement would be more likely to arise in the aftermath of a terrorist attack.

- The GI Statement of Principles provides a useful description of the task in relation to nuclear terrorism, that would also apply in the event of biological or chemical attack: “Improve capabilities of participants for response, mitigation, and investigation, in cases of terrorist attacks involving the use of nuclear and other radioactive materials and substances, including the development of technical means to identify nuclear and other radioactive materials and substances that are, or may be, involved in the incident.”
- The WHO Guidance on responding to biological or chemical weapons emphasizes that governments must be prepared to respond to such attacks, even if they do not seem likely. The WHO also stresses the close links among WMD, natural disaster and public health consequence management tasks:

⁷ United Nations Security Council, *Resolution 1874 (2009): Adopted by the Security Council at its 6141st meeting, on 12 June 2009, S/RES/1874(2009), 12 June 2009.*

⁸ United Nations Security Council, *Resolution 1929 (2010): Adopted by the Security Council at its 6335th meeting, on 9 June 2010, S/RES/1929(2010), 9 June 2010.*

“...biological and chemical weapons have only rarely been used. Their development, production and use entail numerous difficulties and pose serious hazards to those who would seek to use them. This applies particularly to biological weapons. Even so, the magnitude of the possible effects on civilian populations of their use or threatened use obliges governments both to seek to prevent such use and to prepare response plans, which can and should be developed as an integral part of existing national-emergency and public-health plans.”⁹

⁹ World Health Organization, *Public Health Response to Biological and Chemical Weapons: WHO Guidance*, Second Edition, Geneva, 2004, p. ix.

III. PRIORITY COUNTRIES AND SELECTED RECOMMENDATIONS

Priority Countries. This study focuses on a number of priority countries in the two regions of South/Southeast Asia and Latin America. Priority countries were chosen on the basis of the key WMD proliferation factors and counterproliferation missions discussed below. We excluded countries – Burma, Venezuela and Bolivia – that may be of special interest for countering WMD, but as sources of proliferation rather than actual or potential partners.

In South/Southeast Asia several countries have the counterproliferation capabilities and actual or potential will to help build such capabilities elsewhere in the region. Therefore, for South/Southeast Asia, we identified both potential countries for building counterproliferation capabilities (“priority countries”) and potential regional partners for assisting in this goal (“partner countries”). The states in the first category are: Indonesia, Malaysia, Pakistan, Philippines, Thailand and Vietnam. The states in the second category are: Australia, New Zealand, Singapore and India.

In Latin America, we identified seven priority countries for building counterproliferation capabilities, one in North America (Mexico), one in Central America (Panama), and five in South America: Argentina, Brazil, Chile, Colombia, and Peru. Counterproliferation has not been seen as important by Latin American states and few have joined multilateral counterproliferation efforts such as PSI and the GI. Unlike South/Southeast Asia, there were no countries in Latin America identified as having the capabilities and will to help build the counterproliferation capacity of other countries in the region.

The priority countries in South/Southeast Asia differ from those in Latin America in one other important respect. Longstanding and growing regional relationships, the enduring conflict between India and Pakistan, and the unique proliferation and terrorism challenges facing Pakistan create a sharp dividing line for this study between Pakistan and the Southeast Asian priority countries. As a result, the guidelines and recommendations in this study for South/Southeast Asia are presented in two sets: one for Southeast Asia; and the other for Pakistan. Latin America does not have such a clear dividing line among the priority countries for building counterproliferation capabilities; instead, the recommendations address single countries or regional subgroups of countries.

For Latin America, priority countries for building counterproliferation capabilities were selected on the basis of their potential contribution to U.S. counterproliferation goals, taking into account their geographic location, relatively stable government, potential technical expertise, and an expectation that each would work constructively with the United States in one or more of the tasks discussed above. In Latin America the primary challenges for capacity building are two-fold: first, as noted, there are no potential partner countries which are well equipped to take on a regional leadership role for this mission; and second, countries in Latin America view counterproliferation as primarily a U.S. problem and many are reluctant to be seen as serving U.S. interests.

Key Recommendations. The regional sections of this report include assessments of the counterproliferation capabilities of the priority countries and our recommendations for enhancing

those capabilities. The overall national “scores” on current capabilities are summarized in Table B (for South/Southeast Asia) on page 13 and Table D (for Latin America) on page 19. Specific recommendations for each priority country are summarized briefly in Tables C (for South/Southeast Asia) on pages 14-16 and Table E (for Latin America) on page 20. Those summaries are intended to provide a useful snapshot; much more detail is found in the two regional chapters. The Tables do not address current capabilities or recommendations for potential partner countries; those are addressed in the regional chapter on South/Southeast Asia.

Key region-wide recommendations for Southeast Asia are:

1. Adopt a regional approach to counterproliferation capability-building, including through the security agendas of leading regional organizations.
2. Work with and through Australia, New Zealand, Singapore and India on building counterproliferation capabilities.
3. Emphasize the counterterrorism, public health and social welfare benefits of countering WMD to increase regional receptivity.
4. Provide regular briefings on WMD proliferation and terrorism threats to receptive governments. Encourage like-minded states to do so with governments that are not receptive to the United States.
5. Cooperate with China and India in setting up their planned nuclear security centers of excellence.
6. Work with DOE to provide WMD security upgrades at regional airports, additional seaports and land border crossings of key priority countries.
7. Work with Centers for Disease Control (CDC), the U.S.-Singapore Regional Emerging Diseases Intervention (REDI) Center and potentially the WHO on developing a regional program for disease prevention, surveillance and response.
8. Train and equip regional maritime patrol forces of key priority countries. Continue research and development on more advanced capabilities, while equipping regional forces now with existing capabilities.
9. Encourage participation by members and non-members in PSI regional meetings, table top exercises and live exercises.
10. For DTRA:
 - o Where appropriate, channel counterproliferation capability assistance through other U.S. Government agencies where they would be most effective. For example, the Centers for Disease Control (CDC) might lead biological prevention, surveillance and response projects, and the Coast Guard might train and equip coastal maritime forces.

- Consider expanding the DTRA office in Singapore to be a focal point for DTRA activities in the region.
- Provide CTR defense and military contacts funds to USPACOM exclusively for counterproliferation purposes.
- Appoint more senior military DTRA liaison officers (LNOs) for defined tours at USPACOM, who have served immediately before (or at least recently) at DTRA Headquarters. (This recommendation would apply to all major regional Combatant Commands [COCOMs], not just to USPACOM.)
- Work with the State Department to coordinate and expand the State Export Control and Border Security (EXBS) Program and the Department of Defense (DoD) International Counterproliferation Program (ICP) to enhance national legal frameworks.
- Explore with the State Department whether to propose the appointment of a regional 1540 Coordinator.
- Develop with the National Defense University (NDU) Center for the Study of WMD: (1) a strong countering WMD component in standard training for foreign military officers; and (2) a one-to-two day countering WMD familiarization seminar for senior defense, foreign affairs and internal security/law enforcement officials from individual regions.

Key recommendations for Pakistan are:

1. Work with DOE on possible expansion of Megaports and upgrades to airport security.
2. Seek opportunities to evolve initial Cooperative Biological Engagement Program (CBEP) projects over time to help increase disease prevention, surveillance and response.
3. Encourage increased Pakistani participation in PSI regional meetings, table top exercises and live exercises.
4. Train and equip maritime patrol forces. Extend any offer of such assistance to India as well.
5. Work with the State Department, DHS and HHS on improving Pakistan's ability to cope with natural disaster, disease and terrorist attack, and thereby indirectly to enhance WMD consequence management capability.
6. Provide CTR defense and military contacts funds to USCENCOM exclusively for counterproliferation purposes. Appoint more senior military LNOs for defined tours at USCENCOM who have served immediately before (or at least recently) at DTRA Headquarters.

TABLE B

PRIORITY COUNTERPROLIFERATION TASKS:
COUNTRY STATUS – SOUTH/SOUTHEAST ASIA

	Threat Awareness	Info Sharing	National Legal Frames	Access Denial	Detection	Interdiction	Consequence Management
Indonesia	Low	Low	Low	Low	Low	Low	Medium-Low
Malaysia	Medium	Low	Medium	Medium	Low	Low	Low
Pakistan	Medium-High	Medium	Low	Medium-Low	Medium	Medium	Medium
Philippines	Medium-High	Medium	Medium	Medium	Low	Medium	Low
Thailand	Medium	Medium	Medium	Medium	Low	Low	Low
Vietnam	Medium	Low	Low	Low	Low	Low	Low

PRIORITY COUNTERPROLIFERATION TASKS:
POTENTIAL PROVIDER COUNTRY STATUS
SOUTH/SOUTHEAST ASIA

	Threat Awareness	Info Sharing	National Legal Frames	Access Denial	Detection	Interdiction	Consequence Management
Australia	High	High	High	Medium	Medium	High	Medium
India	Medium	Medium-Low	Medium	Medium	Medium	Medium	Medium
New Zealand	Medium-High	Medium	High	Medium	Medium	Medium-High	Medium
Singapore	High	Medium	High	High	Medium-High	High	Unknown

TABLE C

**PRIORITY COUNTERPROLIFERATION TASKS:
SUMMARY RECOMMENDATIONS – SOUTHEAST ASIA**

	Threat Awareness and Information Sharing	National Legal Frameworks	Access Denial and Detection	Interdiction	Consequence Management
Indonesia	Australia, Singapore intel briefs. US guidelines for info sharing in specific cases. Nuclear Security Summit participation. REDI Center-WHO workshops.	EXBS/ICP assistance. REDI Center-WHO workshops. Possible regional 1540 Coordinator.	DTRA/DOE nuclear security upgrades. DTRA/HHS biosecurity upgrades. Expanded seaport, airport, land border security upgrades. Provide OTS detectors while continuing R&D on more capable systems. REDI Center-WHO programs on disease prevention, surveillance, response.	PSI regional outreach – meetings, CPX, LiveEx. Train/equip maritime patrol forces.	Seek new National Guard SPP focused on disaster response. REDI Center-WHO programs on disease surveillance, response.
Malaysia	Australia, Singapore intel briefs. US guidelines for info sharing in specific cases. NSS participation. REDI Center-WHO workshops.	EXBS/ICP assistance. Strong focus on implementing new export control laws. REDI Center-WHO workshops. Possible regional 1540 coordinator.	Priority to airport security upgrades. DTRA/DOE nuclear security upgrades. Expanded seaport security upgrades. Provide OTS detectors while continuing R&D on more capable systems. REDI Center-WHO programs on disease prevention, surveillance, response.	PSI regional outreach – meetings, CPX, Live Ex. Train/equip maritime patrol forces.	Seek new National Guard SPP focused on disaster response. REDI Center-WHO programs on disease surveillance, response. Urge participation in UN International Strategy for Disaster Reduction.

Philippines	US, Australia intel briefs. US guidelines for info sharing in specific cases. PSI/GI web sites. NSS participation. REDI Center-WHO workshops.	EXBS/ICP assistance on new security, export control and counter-terrorism laws. Begin with 1540 requests. REDI Center-WHO workshops. Possible regional 1540 coordinator.	DTRA/DOE nuclear security upgrades for research reactor; plan security upgrades for any future nuclear power. Expanded seaport and new airport security. Begin with 1540 requests for detection and border security training, equipment and legislation. Provide OTS detectors while continuing R&D on more capable systems. REDI Center-WHO programs on disease prevention, surveillance, response.	Support more active participation in PSI, including CPX, LiveEx, regional meetings. Train/equip maritime patrol forces.	Use existing SPP with Hawaii National Guard to train/equip for disaster response. Focus on 1540 requests for first responder training as well as equipment. REDI Center-WHO programs on disease surveillance, response.
Thailand	US, Australia, Singapore intel briefs. US guidelines for info sharing in specific cases. GI web site. NSS participation. REDI Center-WHO workshops.	EXBS/ICP assistance. REDI Center-WHO workshops. Possible regional 1540 Coordinator.	Follow up on reported plans to enhance nuclear site and material security as well as stricter biological controls. Focus on 1540 requests for detection and control equipment and training. Provide OTS detectors while continuing R&D on more capable systems. REDI Center-WHO program on disease prevention, surveillance, response.	ICP training and workshops to meet 1540 request on how to “detect, deter, prevent and combat proliferation.” PSI regional outreach – meetings, CPX, LiveEx. Train/equip maritime patrol forces.	Use existing SPP with Washington State National Guard to train/equip for disaster response. REDI Center-WHO programs for disease surveillance, response. Urge participation in UN International Strategy for Disaster Reduction. Focus on disaster response.

Vietnam	Australia, Singapore intel briefs. US guidelines for info sharing in specific cases. GI web site. REDI Center-WHO workshops. Seek to meet 1540 requests for information, exchange of experience on nonproliferation and terrorism prevention.	EXBS/ICP assistance to strengthen export control and nonproliferation laws. Emphasize importance of proliferation prevention for economy and trade. REDI Center-WHO workshops. Possible regional 1540 Coordinator.	Expand Megaports; explore airport and land border security upgrades. Plan full safety and security for planned nuclear power plants. Focus on 1540 requests for detection and access denial assistance. Provide OTS detectors while continuing R&D on more capable systems. REDI Center-WHO programs on disease prevention, surveillance, response.	PSI regional outreach – meetings, CPX, LiveEx. Train/equip maritime patrol forces. Focus on maritime domain awareness.	Not a high priority counter-proliferation task for Vietnam. Still, seek new National Guard SPP, which might work on disaster response.
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**PRIORITY COUNTERPROLIFERATION TASKS:
SUMMARY RECOMMENDATIONS – PAKISTAN**

	Threat Awareness and Information Sharing	National Legal Frameworks	Access Denial and Detection	Interdiction	Consequence Management
Pakistan	US guidelines for info sharing in specific cases.	No action, unless and until Pakistan demonstrates commitment against proliferation.	Megaports expansion. Airport security upgrades. Provide OTS detectors while continuing R&D on more advanced systems. Evolve new CTR bio cooperation to include bio security.	PSI regional outreach – meetings, CPX, LiveEx. Train/equip maritime patrol forces.	USCENTCOM-led cooperation on disaster response, including State, DHS, HHS.

Key region-wide recommendations for Latin America are:

1. Dedicate efforts to enlist participation of Latin American countries in key counterproliferation-related initiatives including PSI and GI. Specifically, seek active participation in:
 - GI: Brazil, Colombia, Peru
 - PSI: Brazil, Mexico, Peru (the Foreign Ministry is reported to be interested in PSI)
2. Work with the State Department to offer assistance in developing legal frameworks for UNSCR 1540 implementation to countries including Argentina, Chile, Mexico, and Peru.
3. Explore with the State Department the appointment of a UNSCR 1540 coordinator for Central America, similar in role to the 1540 coordinator for the Caribbean.
4. Offer appropriate countries nuclear security assistance, such as vulnerability assessments and security upgrades. This assistance should be offered in particular to Argentina while it recovers economically.
5. Offer assistance to improve port and airport security to countries including Peru.
6. Offer financial tracking assistance to priority countries with identified deficiencies such as Argentina.
7. Work with DOE to develop an approach for planning and implementing security upgrades to prepare for major international events in Latin America. Begin with security upgrade cooperation with Brazil for the 2014 World Cup and the 2016 Summer Olympics. (U.S. officials can cite examples of a similar U.S. role for security during the recent Olympics in China and Greece.)
8. For southern cone states (e.g., Argentina, Brazil, Chile, Peru), propose a coalition to form a counter-terrorism regional response force in preparation for the 2014 World Cup and the 2016 Summer Olympics (and continuing post-Olympics). USSOUTHCOM is suggested as the lead in cooperation with State, DHS, and DOE.
 - Provide military capabilities directly to southern cone states, especially Peru, for this mission.
9. For Latin American countries reluctant to cooperate directly with the United States, work through Canada and France to encourage actions to improve counterproliferation capabilities.
10. For the DoD:
 - Increase emphasis on the countering WMD mission and the role of regional COCOMs in the Unified Command Plan (UCP), Global Employment of the Force (GEF) and other appropriate guidance documents.
 - Task USSOUTHCOM to develop procedures and identified response forces to interdict/seize suspected WMD.

- To improve consequence management capabilities in Mexico, expand the National Guard's State Partnership Program (SPP) to include liaison or "twinning" relationships between U.S. National Guard Homeland Response Force units and their counterparts in Mexico.
- As soon as feasible, consider installing the Ocean Surveillance Initiative capability (perhaps, as a prototype) to improve recallable maritime surveillance data for the Gulf of Mexico and/or Caribbean. Work with USSOUTHCOM and JIATF-South to determine the best deployment locations that would complement existing surveillance operations.

11. For DTRA:

- Assign a DTRA liaison officer to work directly with JIATF-South.
- Provide DTRA support to the NORTHCOM initiative to establish JIATF-North in El Paso, Texas.
- Work with NORTHCOM to evaluate authorities needed for special purpose National Guard units (e.g., chemical, biological, radiological decontamination and response) in the United States and to provide consequence management capabilities, if needed, for incidents in Mexico. Offer CWMD training for counterparts in Mexico to build their skills.
- Increase the level of resources available to support ICP training for priority countries.
- Implement an executive-level countering-WMD training course tailored for Latin America for military officers and senior defense, foreign policy, and internal security/law enforcement officials. This would be an executive version of the current course-Inter-Agency Coordination and Combating Terrorism-at NDU's Center for Hemispheric Defense Studies.

TABLE D

PRIORITY COUNTERPROLIFERATION TASKS:
COUNTRY STATUS – LATIN AMERICA

	Threat Awareness	Info Sharing	National Legal Frames	Access Denial	Detection	Interdiction	Consequence Management
Argentina	Medium	Medium	Medium-Low	Medium-Low	Medium	Medium-Low	Medium-Low
Brazil	Medium-Low	Medium	Medium-Low	Medium-Low	Medium	Medium-Low	Medium
Chile	Medium	Low	Low	Low	Low	Medium-Low	Low
Colombia	Medium	Medium-Low	Medium-Low	Low	Medium-Low	Medium	Low
Mexico	Medium-Low	Medium-Low	Low	Low	Medium-Low	Medium-Low	Low
Panama	Medium	Medium	Low	Medium-Low	Medium	Medium	Medium-Low
Peru	Low	Medium-Low	Low	Medium-Low	Low	Low	Low

TABLE E

**PRIORITY COUNTERPROLIFERATION TASKS:
SUMMARY RECOMMENDATIONS – LATIN AMERICA**

	Threat Awareness & Information Sharing	National Legal Frameworks	Access Denial and Detection	Interdiction	Consequence Management
Argentina	Recruit for regional leadership role in PSI OEG.	Assist 1540 implementation.	Offer nuclear security upgrade assistance.	Propose Southern Cone CT response force.	Southern Cone CT response force.
Brazil	Recruit for GI and PSI.	Canada and/or France engage on strengthening legal frameworks for 1540.	Propose World Cup / Olympics security partnership.	Propose Southern Cone CT response force.	Southern Cone CT response force.
Chile		Assist 1540 implementation.		Propose Southern Cone CT response force.	Southern Cone CT response force.
Colombia	Recruit for GI.	Assist 1540 implementation.	EXBS Assistance.	Use future PANAMAX exercises to develop expertise.	Use future PANAMAX exercises to develop expertise.
Mexico	Recruit for PSI.	Assist 1540 implementation.			Twinning/partner programs with U.S. National Guard HRF units.
Panama	Recruit for full FATF membership.			Use future PANAMAX exercises to develop expertise.	Use future PANAMAX exercises to develop expertise.
Peru	Recruit for GI and PSI.	Assist 1540 implementation.	Offer nuclear security assistance and security upgrades for ports and airports; EXBS Assistance.	Propose Southern Cone CT response force; Provide military capabilities for interdiction.	Southern Cone CT response force.

SOUTH AND SOUTHEAST ASIA

I. REGIONAL SETTING

Existing WMD Programs

India and Pakistan stand apart, with their declared (and growing) stocks of nuclear warheads and fissile material. Both also have expanding missile programs. No other country in the region is known to possess WMD programs or significant WMD material, although several have various nuclear and biological materials.

Several regional states have nuclear facilities under International Atomic Energy Agency (IAEA) safeguards. Except for India and Pakistan, most are civil facilities without weapons-grade material. DOE worked with Vietnam to convert its research reactor to LEU. While only India and Pakistan have weapons-grade nuclear material, the number of reactor-grade facilities in the region still could be of concern if terrorists could acquire from them material for radioactive dispersal devices. Following are the safeguarded nuclear facilities in the region:

- Power Reactors: India (3), Pakistan (2), Philippines (1)¹⁰
- Research Reactors: Australia (3), Bangladesh (1), Indonesia (3), Malaysia (1), Pakistan (2), Philippines (1), Thailand (2), Vietnam (1).
 - Fueled by HEU – India (1), Pakistan (1)
 - Converted from HEU – Australia (1), Philippines (1), Vietnam (1)
- Conversion Plants: none
- Fuel Fabrication Plants: India (1), Indonesia (2)
- Reprocessing Plants: India (1)
- Enrichment Plants: Australia (1) (SILEX test facility)
- Separate Storage Facilities: India (1), Indonesia (1), Pakistan (1)
- Other Facilities (research and development): Australia (1), Indonesia (1)

Much less is known about biological facilities in the region. However, there appear to be substantial – and growing – numbers there of BSL-3 and BSL-4 laboratories that could handle work with dangerous pathogens. India stands out, but others like Singapore and Thailand are important. Following is an estimate of BSL-3 and BSL-4 laboratories in operation or under

¹⁰ The Philippines power reactor was constructed but never fueled, and is mothballed.

construction in selected regional states; the absence of a country from the list (e.g., Pakistan) does not mean that it possesses no such facilities:

- BSL-3: India (5), Indonesia (1), Singapore (11), Sri Lanka (1), Thailand-3.
- BSL-3 under construction: Bangladesh (1), Burma (1), India (16), Indonesia (2), Singapore (1), Thailand (5), Vietnam (1).
- BSL-4: India (2).

Burma is a major unknown in all WMD threat categories. Russia agreed in 2007 to build a research reactor there, but there is no evidence that any work has begun. Of much greater concern are indications of improved relations between Burma and North Korea. It is not certain if North Korea is assisting Burma in developing nuclear and/or missile programs. However, government and private observers have grown increasingly suspicious – and trade between the two requires close scrutiny.¹¹

Geography

The region lies along the major maritime trade route between Asia and the Middle East, and has been used as a standard avenue for the proliferation trade, especially from North Korea. The numerous choke points provide both proliferation and counterproliferation opportunities. Southeast Asia is less prominent as an air route between Asia and the Middle East, but South Asia is important for both air and maritime proliferation and counterproliferation.

Domestic Instability

The greatest concern in the region regarding the potential proliferation consequences of domestic instability is that Pakistan could become a failed state, with loss of control over its nuclear warheads and fissile material. At least as great a danger – or perhaps even a greater one – is that a radical government might come to power in Pakistan that would show less restraint than its predecessors in use of nuclear weapons, support to terrorism, and/or proliferation.¹² A third possibility, which might be the most likely and could be happening now without our knowledge, is that powerful elements within the Pakistani Government could use their power over (or access to) their country's nuclear facilities, warhead and/or material to assist other state or non-state nuclear programs.

¹¹ See for example David Albright, Paul Brannan, Robert Keeley and Andrea Scheel Stricker, *Burma: A Nuclear Wannabe, Suspicious Links and North Korea and High-Tech Procurements to Enigmatic Facilities*, ISIS Imagery Brief, Washington, DC., Institute for Science and International Security, January 28, 2010.

¹² “Less restraint” does not mean that Pakistani Governments thus far have a good record in that regard. Demand-side proliferation was official policy, central to the development of Pakistan's nuclear and missile delivery programs. Questions remain about the extent to which the Government of Pakistan supported or condoned the powerful and dangerous A.Q. Khan proliferation network, was directly engaged in other supply-side proliferation activities, and/or remains so engaged.

While Pakistan is the greatest near-term threat, many other countries in the region are at risk for dangerous domestic political upheaval. Burma, Indonesia, Thailand, the Philippines, Malaysia and Sri Lanka are the prime candidates. While a loss of government control in any of those states might not have immediate, direct nuclear proliferation consequences, that could change if any of them had acquired domestic nuclear energy programs. Biological proliferation might be an even more likely danger. Finally, domestic governmental weakness could provide fertile environments for proliferation networks.

WMD Terrorism

Closely related to the dangers of political instability in the region are the serious terrorist threats it faces. Al Qaeda has used Southeast Asia for planning meetings and similar activities, and considers India a major target. Even more active throughout the region, especially in Indonesia, has been Jemaah Islamiah (JI); although JI has not shown any particular interest in WMD, the possibility can certainly not be ruled out. Finally, terrorist groups – including Al Qaeda, the Taliban and Lashkar-e Tayiba – may be more active in Pakistan than in any other single country.

Spread of Nuclear Energy

Several regional states are showing significant interest in civilian nuclear power. Vietnam appears to have the most advanced plans, followed by Indonesia and Thailand. The Philippines and Malaysia have announced that they are considering nuclear power. As mentioned above, all five states have operating LEU-fueled research reactors that do not pose an actual or potential proliferation threat.

The United States is discussing so-called “123 agreements” with Vietnam and the Philippines that would allow transfers of nuclear technology and equipment. The draft agreement with Vietnam generated controversy in the United States when it was disclosed that the accord – unlike the recent one with the United Arab Emirates – would not require Vietnam to forswear enrichment or reprocessing.¹³

Although the U.S. has not even begun formal 123 negotiations with Vietnam, other countries are moving rapidly to expand their nuclear activities there. On 31 October 2010, on the margins of the East Asian Summit (EAS) in Hanoi, Russia and Vietnam signed an agreement for construction of the first nuclear power plant in Vietnam – scheduled to begin operating in 2020. On the same day, the Prime Ministers of Vietnam and Japan announced that Japan will construct Vietnam’s second nuclear power plant, subject to Japanese Diet approval of a nuclear cooperation agreement. That second plant is due to begin operating in 2021. Vietnam reportedly plans to build a total of eight nuclear power plants by 2030.

On the same day that Russia and Vietnam signed their agreement, Russian Foreign Minister Lavrov said publicly that: “Our partners [at the EAS] expressed particular interest in nuclear energy, noting Russia’s vast experience in this sphere.” He did not provide further details.

¹³ Jay Solomon, “U.S., Hanoi in Nuclear Talks: Vietnam Plan to Enrich Uranium May Undercut Nonproliferation Efforts, Rile China,” *Wall Street Journal*, August 3, 2010.

Biotechnology

Many countries in the region have advanced biological programs and facilities that could present a biological threat. As mentioned above, the number of BSL-3 facilities in the region is large, and growing rapidly.

Regional Action Against Proliferation

In Southeast Asia, Australia, New Zealand and Singapore have shown the greatest awareness of proliferation threats and determination to counter them. All three are active participants in PSI and have strong, well-enforced export controls. The only other South and Southeast Asian states in PSI are Brunei, Cambodia, Papua New Guinea, Philippines and Sri Lanka.

The region is much better represented in the Global Initiative to Combat Nuclear Terrorism (GI). Participants are Australia, Cambodia, India, Nepal, New Zealand, Pakistan, Philippines, Singapore, Sri Lanka, Thailand and Vietnam. (The Philippines, Thailand and Vietnam all announced at the April 2010 Nuclear Security Summit in Washington that they would join the GI. Singapore also joined very recently.) Thus, most regional states identified in this study as priorities are GI members – Indonesia and Malaysia are the important exceptions.

Many regional states have very weak export controls. One of the most notorious has been Malaysia, which announced at the Nuclear Security Summit that it had adopted new, more stringent controls. It remains to be seen whether the actual laws and their enforcement meet expectations.

On the positive side, all priority and partner important states in the region attended the April 2010 Nuclear Security Summit, including the two that are not GI participants. Participating states included Australia, India, Indonesia, Malaysia, New Zealand, Pakistan, Philippines, Singapore, Thailand and Vietnam. No regional state that was invited declined to attend.

Relatively few Southeast/South Asian states are members of the Financial Action Task Force (FATF), which plays a crucial role in combating illegal international financial transactions, including those that support terrorism (and by extension, those that support proliferation). Only Australia, India, New Zealand and Singapore are FATF members. However, all states in the region belong to the Asia-Pacific Group on Money Laundering (APG), a FATF Associate Member, committed to implementing and enforcing FATF standards and recommendations against money laundering and terrorism financing.¹⁴

No official regional organizations are active against WMD or missile proliferation.

¹⁴ Thirty-four states and two regional organizations (the European Commission and the Gulf Cooperation Council) are FATF members. Eight regional groups, including the APG, are Associate Members. Associate Members seek to implement FATF standards and allow FATF evaluations of their performance and access to their discussions. They do not participate in FATF decision-making. See “Speech by FATF President Paul Vlaanderen to the 8th Ad Hoc GIABA Ministerial Committee Meeting, Praia, Cape Verde, 5 May 2010,” at <http://www.fatf-gafi.org>.

The Association of Southeast Asian Nations (ASEAN),¹⁵ perhaps the most important regional group, traditionally confines its activities to economic and humanitarian areas. For example, the work plan for ASEAN Defense Ministers, who began meeting in 2006, concentrates on cooperation in disaster relief. In 2009, the ASEAN members adopted a new “ASEAN Political-Security Community Blueprint,” that devotes considerable attention to cooperation against “transnational crimes;” those explicitly include terrorism and trafficking in drugs and persons, but not WMD or missile proliferation.

The ASEAN Regional Forum (ARF) has the benefit of a regional security focus, and of involving all states in East Asia, Southeast Asia and South Asia. Unfortunately, the latter benefit carries the disadvantages of North Korean participation.¹⁶ Nonetheless, the ARF is growing more active in discussing proliferation issues. An annual Inter-Sessional Meeting on Nonproliferation and Disarmament was inaugurated in July 2009; the first session focused on nonproliferation, the second on peaceful uses of nuclear energy and the third is to discuss disarmament. All ARF members participated in the July 2010 meeting, except for North Korea, Sri Lanka and Timor Leste. In June 2009, the ARF also held a focused workshop on biological threat reduction; participants represented all ARF members except Brunei, Cambodia, North Korea, Burma and Papua New Guinea. While these fora cannot readily be expected to take concrete decisions or action, they reflect and may foster increased proliferation threat awareness in the region.

The East Asia Summit (EAS), first convened under ASEAN auspices in 2005, may be a more promising venue for eventual specific action. EAS groups the ASEAN members, along with Australia, China, India, Japan, South Korea and New Zealand. The Russian and U.S. Foreign Ministers were invited “as special guests of the chair” at the fifth EAS in Hanoi on 30 October 2010. Russia and the United States have been invited to be full EAS participants beginning in 2011. Thus, the EAS will group all the regional states of priority interest to this study except Pakistan, as well as the key extra-regional states. Burma’s participation is a drawback, but not as serious a one as North Korea’s involvement in the ARF.

In her address to the 2010 Summit, Secretary Clinton highlighted nuclear nonproliferation as an important focus for EAS cooperation. The best opportunities for using the EAS to help build capacity to counter proliferation might grow out of three of the five areas already officially designated as priorities for EAS cooperation: energy; disaster management; and avian flu prevention.¹⁷ All three have a dual-use character that could facilitate threat awareness and reduce political objections to action.

¹⁵ ASEAN members are: Brunei; Cambodia; Indonesia; Laos; Malaysia; Myanmar (Burma); Philippines; Singapore; Thailand; and Vietnam.

¹⁶ ARF members are: Australia; Bangladesh; Brunei; Cambodia; Canada; China; European Union; India; Indonesia; Japan; North Korea; South Korea; Laos; Malaysia; Myanmar (Burma); Mongolia; New Zealand; Pakistan; Papua New Guinea; Philippines; Russia; Singapore; Sri Lanka; Thailand; Timor Leste; United States; Vietnam.

¹⁷ The other two designated priority areas are finance and education. See *Chairman’s Statement of the East Asia Summit (EAS) Ha Noi, Viet Nam, 30 October 2010*.

The Council for Security Cooperation in the Asia Pacific (CSCAP) is a nongovernmental multilateral grouping in the region with a strong interest in proliferation issues. It might prove a useful venue to advance threat awareness and counterproliferation capability requirements. CSCAP was founded in 1993 to promote dialogue and cooperation on regional security issues. Member committees now come from 21 regional states, including all the priority countries for this study except Pakistan.¹⁸

- In 2004, a CSCAP WMD Study Group was formed on Countering the Proliferation of Weapons of Mass Destruction; it is co-chaired by the United States and Vietnam committees. Its primary purpose is to serve “as a vehicle for raising regional consciousness on important issues related to WMD proliferation, focusing on creation of an as-yet-unfinished Asia Pacific Handbook and Action Plan to Prevent WMD Proliferation. The draft Handbook offers useful descriptions of agreements, international organizations and national assistance efforts related to nonproliferation, but lacks any prescriptive elements.”¹⁹ The CSCAP WMD Study Group further describes its agenda as “also examining regional attitudes toward the Proliferation Security Initiative and other counter-proliferation efforts and regimes, the prospects for the Six-Party Talks and potential means for facilitating the Korean Peninsula denuclearization process, regional threat perceptions and security outlooks, missile proliferation, and ballistic missile defense.”²⁰ The CSCAP WMD Study Group meets twice a year. In 2009 and 2010, it met immediately before the ARF Intersessional Meeting on Nonproliferation and Disarmament; several government officials participating in that ARF session joined in the CSCAP WMD Study Group meeting.
- In 2005, the WMD Study Group formed an Export Controls Experts Group “to assess national export control programs, identify vulnerabilities and shortcomings, and develop recommendations for improving both individual export control capacity and mutual cooperation.” In March 2009, the Experts Group published *Guidelines for Managing Trade of Strategic Goods*, that was tabled at the 2009 ARF Intersessional Meeting on Nonproliferation and Disarmament.²¹

The Asia-Pacific Economic Cooperation (APEC) forum has devoted limited attention to proliferation. In 2003, the United States led an effort to focus the APEC Summit on such issues. Although that had some temporary success, it was not sustained for two principal reasons: other

¹⁸ CSCAP Member Committees are from: Australia, Brunei, Canada, Cambodia, China, European Union, India, Indonesia, Japan, North Korea, South Korea, Malaysia, Mongolia, New Zealand, Papua New Guinea, Philippines, Russia, Singapore, Thailand, United States and Vietnam. A committee from the Pacific Islands Forum is an observer. .

¹⁹ See Council for Security Cooperation in the Asia Pacific WMD Study Group, *Handbook on Preventing the Proliferation of Weapons of Mass Destruction in the Asia-Pacific: Draft Copy*, June 2010, at <http://www.cscap.org>.

²⁰ “Countering the Proliferation of Weapons of Mass Destruction in the Asia Pacific,” at <http://www.cscap.org>.

²¹ CSCAP Export Controls Experts Group, *Guidelines for Managing Trade of Strategic Goods: A Memorandum from the Council for Security Cooperation in the Asia Pacific (CSCAP)*, CSCAP Memorandum No, 14, March 2009.

members' insistence that APEC retain its focus on economic issues; and, more important, China's opposition to any APEC security focus as long as Taiwan is a member.²² It is telling that APEC members are known as "member economies." The APEC Secretariat website explains that "[t]he word 'economies' is used to describe APEC members because the APEC cooperative process is predominantly concerned with trade and economic issues, with members engaging with one another as economic entities."²³

Nonetheless, APEC increasingly recognizes – at least rhetorically – that trade, health and food security are critical to economic activity in the region. The "APEC Leaders' Growth Strategy," adopted at the November 2010 APEC Summit in Japan, underscores the importance of "Secure Growth":

"We seek to protect the region's citizens economic and physical well-being and to provide the secure environment necessary for economic activity.

"Disease, disasters, terrorism, and corruption all impact our citizens' economic and physical well-being by reducing economic productivity and disrupting commerce and trade. APEC is uniquely positioned to enhance member economies' capacity to minimize natural and human risks to growth.

"Going forward, APEC will focus its efforts to improve secure growth in the following actions:

- Counter terrorism and secure trade. ...
- Prepare for emergencies and natural disasters. ...
- Enhance infectious disease preparedness and control of non-communicable diseases, and strengthen health systems. ...
- Strengthen food security and food safety. ...
- Combat corruption and promote transparency. ...²⁴

The APEC "Secure Growth" elements on counterterrorism/secure trade, emergency preparedness, and enhancing disease preparedness and control include a range of actions that would build counterproliferation capacity as well:

"APEC will continue to identify and implement initiatives to counter terrorism and to promote a secure trade agenda. This includes building on current efforts in such areas as transportation security (including port, maritime, and aviation security), anti-money laundering and counter-terrorism finance, supply chain security and trade recovery, cyber-security, and protecting infrastructure. ...

²² APEC members are Australia, Brunei Darussalam, Canada, Chile, China, Hong Kong, Indonesia, Japan, South Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, Philippines, Russia, Singapore, "Chinese Taipei," Thailand, United States and Vietnam.

²³ "Member Economies," at <http://www.apec.org>.

²⁴ "The 18th APEC Economic Leaders' Meeting, Yokohama, Japan: the APEC Leaders' Growth Strategy, 14 November 2010," pp. 8-9, at <http://www.apec.org>.

“APEC will identify gaps in disaster risk reduction approaches in the region and develop practical mechanisms to maximize business and community resilience...

“APEC will continue to enhance preparedness for and effective management of emerging and re-emerging infectious diseases, including tuberculosis, vector-borne diseases, HIV/AIDS and other pandemics; build capacity for the prevention of non-communicable diseases, including injuries; and strengthen health systems of economics, including health financing, human resources, and health information technologies. ...”²⁵

Another area of APEC interest with proliferation implications is the possible spread of nuclear power in the region. The APEC Leaders’ Growth Strategy is careful to avoid endorsing greater use of civil nuclear energy, but does mention nuclear power as one possible mechanism to fulfill its stated goal of developing “a low-carbon energy sector.”²⁶

Finally, the two *WHO Regional Offices* operating in the region might help build capabilities against biological threats. While they are focused on public health, their mission to improve disease surveillance, prevention and response would have direct applicability to biological attacks as well.²⁷

Proliferation Cascade

An additional concern is of a nuclear proliferation cascade, inspired by the emergence or strengthening of nuclear weapons programs in other regional states. That phenomenon, of course, has been seen for decades between India and Pakistan. Southeast Asia governments thus far do not appear inspired to acquire their own nuclear weapons because of the Indian, Pakistani or North Korean programs. However, that could change dramatically if, for example, Japan “went nuclear.” Although almost 65 years have passed since the Second World War, the memories and consequent concern about Japan remain strong.

A proliferation cascade would also have a good chance of developing – indeed, would be likely – if another Southeast Asian state pursued nuclear weapons. The prime states of concern in that regard, for different reasons, are Burma and Indonesia. Quite apart from the danger of domestic political change, Indonesia might be inspired to pursue nuclear weapons if Iran succeeds in its current efforts – believing that its importance as a Muslim-majority state require it to join Iran and Pakistan in the “nuclear club.” If Indonesia were to pursue nuclear weapons, the effects could be region-wide – perhaps beginning with Malaysia and Singapore.

²⁵ *Idem.*

²⁶ *Ibid.*, p. 6.

²⁷ The WHO Regional Office for South-East Asia includes: Bangladesh, Bhutan, Burma, India, Indonesia, Maldives, Nepal, North Korea, Sri Lanka, Thailand and Timor-Leste. The WHO Regional office for the Western Pacific includes (but is not limited to) the following Southeast Asian states: Australia, Brunei Darussalam, Cambodia, Laos, Malaysia, New Zealand, Papua New Guinea, Philippines, Singapore and Vietnam.

Although the concept of a proliferation cascade lends itself most readily to the nuclear area, a comparable phenomenon might occur in the biological area as well. Under one possible scenario, threatened states that are technically and/or economically unable to pursue nuclear weapons might see deterrent potential in biological weapons. Still, that scenario is less likely than a greatly increased risk of biological terrorism from proliferation of legitimate, but insufficiently safe and secure, biological facilities.

II. KEY REGIONAL COUNTERPROLIFERATION CHALLENGES AND TASKS

Key Challenges

State Proliferation Challenges: Four factors discussed above are especially important in shaping the major state proliferation challenges in the region.

- The first is the existence of WMD programs. Here the clear priorities are India, Pakistan and potentially Burma.
- The second is persistent regional tension. Again, India and Pakistan are obvious priorities. Burma may offer a variant on the same theme; the government's authoritarianism, disregard for international norms, and ties with North Korea could generate a real threat of conflict with neighbors.
- The third factor is domestic instability. As mentioned, Pakistan is the greatest near-term threat, but Burma, Indonesia, Thailand, the Philippines, Malaysia and Sri Lanka are all possible candidates.
- The fourth factor is geography. All states in the region sit astride the major maritime trade route between Asia and the Middle East. This trade route can be used for legitimate commerce as well as for WMD transit. Only four – Australia, New Zealand, Singapore and India – have substantial capabilities to deal with the resultant threats.

In sum, most countries in the region pose some level of state proliferation threat (Singapore, Australia and New Zealand are the only exceptions). Pakistan stands in a class by itself: a priority concern under all four factors. Burma may be a fairly close second. India, Indonesia, Thailand, the Philippines, Malaysia all present significant, albeit different, dangers.

Non-State Threats: Closely related to the actual or potential domestic instability in many states in the region is the threat of WMD terrorism. Here again, Pakistan is the most severely challenged state, with India and Indonesia also threatened. The indigenous terrorists in Sri Lanka have not yet shown any ties with outside groups interested in WMD and/or inspired by transnational extremism, but the possibility of such developments cannot be excluded.

Nuclear Energy: India and Pakistan are the only states in the region with substantial civilian nuclear energy programs, which have long been closely related to their weapons efforts. (The 2005 U.S.-India “nuclear deal,” with its subsequent IAEA-India safeguards agreement, has imposed some – but incomplete – separation between India's civil and military efforts.)

As mentioned above, Indonesia, Vietnam and Thailand have all announced plans for civil nuclear power, and Vietnam recently agreed with Russia and Japan on construction of two plants. The Philippines and Malaysia have said that they are considering the option, but have not reached even the plans stage. The United States is discussing 123 agreements with both Vietnam and the Philippines. None of these states appears interested in weapons programs. Most, if not all, might have been willing to forego enrichment and reprocessing in exchange for assistance

with nuclear power. However, that has almost certainly changed, now that the United States has not required such a commitment from Vietnam. Other regional states interested in nuclear power will undoubtedly demand treatment at least as favorable as that granted to Vietnam.

Biological Capabilities: Several states in the region have substantial biotechnology capabilities that are inherently dual-use. Standouts are India, Indonesia, Malaysia, Singapore and potentially Thailand. Little is required, in infrastructure or expertise, for a government or group to transform legitimate biotechnology activities into a weapons program.

Key Issues in Light of Overarching Challenges

Regional WMD Programs: The greatest danger is presented by an unstable Pakistan. Moreover, Pakistan has been an unparalleled source of nuclear proliferation in the past (whether officially sanctioned or not), and could be the same in the future. Indeed, uncertainties remain about whether and to what extent the Pakistani Government is currently involved in proliferation activities.

India poses much less of a proliferation threat, but the risk remains of active conflict with Pakistan and consequent secondary effects throughout the region (especially among Islamic states). The next major threat may be Burma, depending on the actual extent of its WMD programs and assistance from North Korea. Although Burma's indigenous resources are few, it could pose a serious danger through a combination of North Korean assistance and the Burmese Government's own proclivities.

Indonesia exhibits no known WMD ambitions, but that could change as a result of political instability. The nation has significant capabilities that could be exploited for WMD purposes. Those capabilities are especially noteworthy in biotechnology, but its large, sophisticated scientific and technological community could almost certainly also master nuclear technology in time.

Regional Transit: As mentioned, the entire South/Southeast Asia region is along the major transit routes between East Asia and the Middle East – the most active WMD proliferation trade route in the world. The states in the region have varying abilities to cope with the resultant threat, but only four have satisfactory counterproliferation capabilities: Australia, New Zealand, Singapore and India. The first of those four, New Zealand, is the furthest from the main proliferation trade route. Australia is the most capable state in the region, with Singapore a close second. India also has substantial capabilities, but its willingness to use those has occasionally been questionable.

Regional Sources of Technology and Materials: In this area, as in so many others, Pakistan is the greatest concern. Especially in the nuclear area, it has the technology, materials, equipment – along with a history (at least in the past and possibly the present) of proliferation and severe domestic instability. India has at least comparable (and probably superior) nuclear technology, and clearly superior biotechnology. However, it is much more stable than Pakistan and – despite some missteps in the past – a much better record in controlling outward proliferation (and, for that matter, in not relying on help from proliferators like China and North Korea).

Burma might also be a willing source of technology and materials, depending on the maturity of its WMD programs. Nevertheless, its domestic resources are so limited that it probably is all that (and hopefully more than) it can do to develop a national program – even with maximum North Korean help. Indonesia and Singapore have substantial capabilities in biotechnology. Singapore appears to have solid proliferation controls in place. The same is not true of Indonesia; although it shows no desire to proliferate WMD-related materials or technology, it might not be able to prevent that.

Finally, the history of the A.Q. Khan network in Malaysia shows that any state without strict controls over its industry and trade may become an important and dangerous – even if unwitting and unwilling – clandestine source of WMD materials, technology and/or equipment. Barring strong domestic controls and enforcement, there is no ready means to predict where such proliferation sites might take hold.

Priority Counterproliferation Tasks – Regional Overview

The overview section of this report identified several priority counterproliferation tasks. The status of those tasks in individual South/Southeast Asian states is discussed in Section III of this report. The following discussion provides some brief regional overview points, taking account of the key missions and issues identified above.

Threat Awareness: The states of South/Southeast Asia have made considerable progress in becoming more aware of the proliferation threat and taking it seriously. As recently as five years ago, only Australia, New Zealand and Singapore were dedicated to countering proliferation. The recent expansion of regional membership in GI, and growing regional opposition to Iran’s and North Korea’s nuclear programs, testify to the change. Nonetheless, there remains substantial room for improvement – as shown, for example, by the unwillingness of most regional states to join PSI.

On a somewhat different level, regional awareness of urgent requirements for disease surveillance, prevention and response has increased dramatically in recent years, because of the threats posed by Severe Acute Respiratory Syndrome (SARS), the H1N1 and H1N5 influenza strains and the threat of pandemic influenza. While that is not the same as appreciation of the threat of biological weapons, the required steps to deal with the problem are generally comparable, if not identical.

Information Sharing: Improving proliferation-related information exchange in South/Southeast Asia is particularly complicated. Two constraining factors are at work. The first is the lack of close allied relationships among states in the region (again, Australia, New Zealand, and to an extent Singapore, are the major exceptions). Second is the existence of some severe regional conflicts (India and Pakistan, of course, being the worst).

National Legal Frameworks: The WMD programs in South/Southeast Asia, the region’s place in WMD transit, and its potential as a source of WMD technology and materials, all place a high premium on effective national export controls and criminal sanctions for proliferation activity.

Both Japan and APEC have been active in encouraging regional states to act accordingly, but with limited success. It is noteworthy that Malaysia, site of a key A.Q. Khan node revealed in 2003, announced only in spring 2010 that it had adopted significant export controls.

Denial, Detection and Interdiction: South/Southeast Asia's geography puts a high premium on all three of the closely related tasks of: denial of access to WMD, related materials, technology and financing; detection of proliferation holdings or shipments; and interdiction of proliferation shipments, to include seizure of proliferation cargoes and other illicit WMD-related materials and assets. Those are targeted on maritime, air and land interdiction capabilities, as well as on preventing a reemergence of proliferation activity such as A.Q. Khan's centrifuge production facility in Malaysia.

Consequence Management: Mitigation of consequences from a WMD attack by another state is not a high priority task for the United States in South/Southeast Asia. The threat is a real one in India and Pakistan, but any U.S. offer of assistance or cooperation in this regard would be politically untenable – implying an expectation of WMD use between the two, and possibly a perception of “taking sides.”

The threat of state WMD use seems low elsewhere in the region – although that could change in the not-too-distant future, depending on developments in Burma. Consequence management in case of a WMD terrorist attack, on the other hand, may be a real requirement. Pakistan, India and Indonesia are most at risk, but no state in the region is free from the danger.

III. NATIONAL ASSESSMENTS

Priority Countries

We have identified two sets of countries in South/Southeast Asia for the task of building counterproliferation capabilities.

The first group – partner countries – includes those few states with relatively developed capabilities: Australia, New Zealand, Singapore and India. While their national capabilities vary, none of these states requires much, if any, assistance for building counterproliferation capacities. Instead, they either already provide – or might provide – such help to other regional states.

The second group – priority countries – is composed of those regional states most in need of counterproliferation capacity-building: Indonesia, Malaysia, Pakistan, the Philippines, Thailand, and Vietnam. They are chosen primarily on the basis of the key WMD proliferation factors and regional counterproliferation missions discussed in Sections I and II, as well as of other U.S. security interests.

Priority Countries: National Assessments

The following discussion assesses the counterproliferation capabilities, gaps and requirements of each country in the second set according to the counterproliferation tasks outlined in Section II: threat awareness; information sharing; access denial; detection; interdiction; and consequence management. The four countries in the first set are discussed in detail in Section IV, on partnership opportunities.

Indonesia

- Threat Awareness
 - Indonesia is likely acutely aware of the terrorist threat facing it, but has shown no real appreciation of the dangers of WMD proliferation or WMD terrorism. As mentioned above, it participates in neither PSI nor the GI. On the positive side, Indonesia attended the Nuclear Security Summit, although it did not join the bulk of the participants in making any specific national commitments. Indonesia adheres to both the Biological and Toxin Weapons Convention (BWC) and the IAEA Additional Protocol.
 - Indonesia came close in 2008 to signing an agreement for cooperation with the Department of State on biological safety and security, but pulled back at the last moment. The apparent reason was domestic controversy over the NAMRU-2 laboratory, which was closed and restarted by Jakarta in 2005 and 2006, and then closed again in 2008. In September 2009, the United States and Indonesia finally signed an agreement to use the site instead for civilian cooperation under a new Indonesia-U.S. Biomedical and Health Research Center. It is difficult to know whether the facility will play any role in

preventing biological weapons proliferation. Thus far, there has been little or no progress in implementing the agreement.

- Information Sharing

- Indonesia does not appear to have any developed arrangements for proliferation-related information sharing with other countries. In 2004, it reported to the UNSCR 1540 Committee agreements with Australia, the Philippines and Malaysia on combating terrorism, but without a focus on WMD.²⁸
- If Indonesia's attitude on sharing information about avian influenza applies more broadly, the implications are negative for any possible counterproliferation information sharing arrangements in the future. Put bluntly, it appears that at least some Indonesian leaders place more importance on political posturing than on national and global public health. In October 2009, Reuters reported: "Indonesia does not intend to resume sharing bird flu samples with other countries until there is a global mechanism for virus sharing in place.... Indonesia, which has suffered the most confirmed deaths from the H5N1 bird flu virus, has been holding out for guarantees from richer nations and drugmakers that poor countries get access to affordable vaccines derived from their samples. But the move has drawn global concern, since experts say it is vital to have access to samples of the constantly mutating virus, which they fear could change into a form easily transmissible among humans and sweep the world in months, killing millions of people."²⁹

- National Legal Frameworks

- Indonesia's 2004 report to the UNSCR 1540 Committee implied (by what it did not include) that Indonesia's legal and regulatory framework against WMD proliferation is very weak. The report mentioned, without giving any details, an "established set of regulations to ensure the safe use and control of radiological and nuclear material." On biological materials, it mentioned (again without elaboration) Department of Health regulation of laboratory safety measures and creation of a rapid response team and early warning outbreak reporting system. Finally, it mentioned domestic outreach programs to communicate Chemical Weapons Convention (CWC) requirements. Indonesia's report to the UNSCR 1540 Committee did not include any requests for assistance in this or any other area.

²⁸ Indonesia has submitted two reports to the UNSCR 1540 Committee, in October 2004 and November 2005. See United Nations Security Council, Security Council Committee established pursuant to resolution 2540 (2004), "Note Verbale dated 28 October 2004 from the Permanent Missions of Indonesia to the United Nations addressed to Chairman of the Committee," S/AC.44/2004/(02)45, 5 November 2004, and "Letter dated 22 November from the Deputy Permanent Representative of the Permanent Mission of Indonesia to the United Nations addressed to the Chairman of the Committee," S/AC.44/2004/(02)/45/Add.1, 25 November 2005.

²⁹ Karima Anjani, "Indonesia Says No Policy Change on Bird Flu Samples," Reuters, October 24, 2009.

- On the other hand, Indonesia has a bilateral agreement with Australia, and a trilateral information-sharing agreement with the Philippines and Malaysia, on combating terrorism. Both might be useful in helping to expand Indonesia's counterproliferation capabilities.
- Access Denial
 - Indonesia's 1540 report is even less informative on access denial measures. Again, it appears to claim that all is well, without providing any details. Thus, the report states that: "In the case of missing hazardous materials, investigation is conducted by the National Policy with the assistance of experts from relevant agencies." The report provides more information on nuclear security, but with an equal absence of any ability to evaluate the effectiveness of the measures:

"The Indonesian Nuclear Energy Board (BAPETEN) conducts monitoring/control on the issuance of regulations and permits, carries out inspections, and implements procedure [sic] on the nuclear material inventory accounting system. The verification of inventory is managed by routine inspection, which involves the monitoring of the quantity, location and ownership; movement of materials from one installation to another; and export and import of nuclear materials, including waste management. This system detects the release of radioactive and nuclear material, intentionally or accidentally."
- Detection
 - Indonesia's geography would make it an attractive base or transit route for terrorists and proliferators. Nevertheless, Indonesia does not participate in either the Megaports or Container Security Initiative (CSI). It reported to the UNSCR 1540 Committee that: "The government has installed radiation, detection and monitoring devices in major seaports. Detection and monitoring equipments such as X-ray scanners are also located in all main airports." No further information is given on the nature, effectiveness or location of those devices.
- Interdiction
 - To our knowledge, Indonesia has not cooperated with other states in any interdiction activities (whether discussions, training, exercises, or actual operations).
- Consequence Management
 - Indonesia's difficulty in dealing with the consequences of terrorism and natural disaster indicate that its capacity for WMD consequence management would be limited at best. At the same time, its experience should make it more open to international cooperation and assistance in this area. Improved ability to deal with natural or terrorist-created disasters would entail at least some improved ability to cope with WMD use, despite the obvious differences among the three.

Malaysia

- Threat Awareness
 - Malaysia became acutely aware of its susceptibility to WMD proliferation by the revelation in 2003 of A.Q. Khan's extensive activities there. Nevertheless, although the government cooperated with the international investigation of the Khan network, it was slow to acknowledge the need for broader measures. In addition, Malaysia was for years a leading supporter of Iran in the IAEA Board of Governors, repeatedly denying that Iran had violated its safeguards agreement or the Nuclear Nonproliferation Treaty (NPT). In recent years, Malaysia has been less vocal in its support for Iran, but it is unclear if that is because it has changed its views or because the focus of action against Iran has shifted from the IAEA to the United Nations Security Council. Malaysia adheres to the BWC and has signed, but not ratified, the IAEA Additional Protocol.
 - As mentioned, Malaysia has not joined PSI or the GI, although it did attend the April 2010 Nuclear Security Summit. Malaysia also reported to the UNSCR 1540 Committee in 2004 that it did not need any assistance in implementing the resolution. It stated that it was willing to consider assistance requests from others, but in a grudging, conditional manner: "Malaysia stresses that the provision of such assistance will only be made after due consideration is made by the highest authority of the Government of Malaysia and will be subjected to its available means and resources."³⁰
- Information Sharing
 - We are not aware of any bilateral or multilateral arrangements Malaysia has for sharing information on WMD proliferation or terrorism, except for the information it acquires from the IAEA as a member of the Board of Governors.
- National Legal Frameworks
 - Malaysia's 2004 report to the UNSCR 1540 Committee claimed that it had "appropriate effective laws in place to prohibit the manufacturing, acquiring, possessing, developing, transporting, transferring or using of nuclear, chemical or biological weapons and their means of delivery." That claim was clearly contrary to its admission (or claim) at the time that it had no national legal basis to prosecute Khan network participants.
 - At the Nuclear Security Summit in April 2010, Malaysia announced that it had enacted a new export control law. United States Government agencies have been working quietly with Malaysia on the drafting, and above all the implementation, of its new legislation.

³⁰ Malaysia has submitted only one report to the UNSCR 1540 Committee, in October 2004. See United Nations Security Council, Security Council Committee established pursuant to resolution 1540 (2004), "Note verbale dated 26 October 2004 from the Permanent Mission of Malaysia to the United Nations addressed to the Chairman of the Committee," S/AC.44/2004(02)/35, 4 November 2004.

- Access Denial
 - We are not aware of steps Malaysia has taken to increase security at WMD-related facilities, beyond its cooperation with DOE and DHS on Megaports and CSI.
- Detection
 - Malaysia has accepted U.S. assistance to increase port security. The Megaports Initiative and CSI operate at two seaports. We are not aware of any steps to increase land border security, although that is undoubtedly much less of a priority, given that Malaysia shares short land borders only with Thailand and Singapore.
 - Of more concern is whether there is adequate security/detection capability at the Kuala Lumpur airport. Malaysia's 2004 report to the UNSCR 1540 Committee contained only one brief mention of airport security, which implied that the aim was more to facilitate trade than to control proliferation: "Scanning machines have been installed by the Royal Malaysian Customs at the major ports and airports to aid in the release process of the goods."
- Interdiction
 - Malaysia has observed at least one PSI exercise. We are not aware of any other Malaysian participation in interdiction activities – whether in discussions, training, exercises, or active operations.
- Consequence Management
 - We have no information on Malaysian consequence management capabilities – most likely because the country has little interest in or capabilities in the area. Malaysia is one of the few significant countries in the region and the world not to participate in the UN International Strategy for Disaster Reduction. This may reflect the fact that Malaysia has escaped the natural disasters plaguing much of Southeast Asia. However, the Asian Disaster Preparedness Center (ADPC) assesses that Malaysia faces a severe threat of coastal flooding and moderate threats of typhoons and tsunamis.³¹

Pakistan

- Threat Awareness
 - The Government of Pakistan has become more aware over the past decade of the severe terrorist threats facing it, but it has yet to extend that recognition to WMD and missile proliferation. Pakistan developed its nuclear and missile capabilities through proliferation imports of equipment, material and technology, and in turn helped to

³¹ Lolita Bildan, *Disaster Management: An Overview*, ADPC, 2003, p. 4.

support its programs both technically and financially through proliferation exports. It is difficult to know the extent of official Pakistani involvement in A.Q. Khan's activities or whether the government's proliferation imports and exports continue. However, the leniency shown to A.Q. Khan demonstrates at the very least that the Government either does not share others' views of the proliferation threat or puts much higher priority on other issues (in this case, on accommodating A.Q. Khan's powerful domestic constituency).

- Pakistan adheres to the BWC and has put some facilities under IAEA safeguards. However, it is not a Party to either the NPT or the IAEA Additional Protocol.
- Information Sharing
 - The widespread perception, and possible reality, that Pakistan is more of a proliferation threat than a potential counterproliferation partner necessarily constrain the extent to which other states should or would be willing to share proliferation-relevant information with Pakistan. For example, it would be extremely risky to share information with Pakistan about proliferation shipments to or from Iran or North Korea when Pakistan may well be engaged in proliferation activities with those countries.
 - Still, some proliferation-related information sharing is required if Pakistan is to develop and maintain the necessary threat awareness. Moreover, Pakistan would probably be an exceptionally rich source of information on proliferation activities by its erstwhile rogue partners, and possibly on WMD terrorism as well.
 - U.S. Government entities interested in sharing counterproliferation information with Pakistan might learn some useful lessons from counterparts who have long engaged with Pakistan in combating terrorism. In both areas, Pakistan is simultaneously a potentially serious threat and also an indispensable partner given the dangers it faces.
- National Legal Frameworks
 - The central requirements for Pakistan in this area are probably not so much new laws and regulations against proliferation, as the will and ability to enforce those. Will is the first requirement, with Pakistan having shown little inclination to control its nationals' proliferation activities (whether those are officially sanctioned or not). In this area as in so many others, the most effective approach to Pakistan, at least initially, would be to focus on the need to prevent terrorist acquisition and use of WMD.
 - A change in Pakistani attitudes in this area would not necessarily – or even probably – lead to effective national controls against proliferation. Enforcement would remain an enormous problem. Nevertheless, an effort to persuade Pakistan of the need to counter proliferation would still be worth it.

- Access Denial
 - Pakistan's secretiveness and national pride limit its willingness to accept outside assistance for security at biological facilities. The problem is even more severe regarding nuclear facilities – and is compounded on the assisting side by the requirements of compliance with the Nuclear Nonproliferation Treaty. Unlike most participants in the April 2010 Nuclear Security Summit, Pakistan made no separate national commitments to help foster nuclear security. In the biological area, the most productive approach appears to be one of engagement and scientific cooperation with Pakistani laboratories that will eventually – if slowly – help to reduce proliferation risks.
- Detection
 - Pakistan participates in the Megaports Initiative and CSI, helping to increase port security. Other important locations for improved security/detection capability would be Pakistan's airports. WMD detection improvements on the country's land borders appear infeasible unless and until the central government achieves a greater level of control over its own borders.
- Interdiction
 - The first requirement for Pakistan on interdiction is less one of building capabilities than of developing the necessary will. Pakistan must demonstrate both awareness of the threat and readiness to cooperate against it. Only under those conditions could we have the necessary access to assess with any fidelity Pakistan's capabilities for interdiction. Here as well we may be able to leverage Pakistan's better-developed concerns over terrorism to extend to WMD proliferation by terrorists and their state supporters. In particular, interdiction cooperation with Pakistan might focus on countering WMD terrorism, building on existing cooperative activities, including in the framework of the Global Initiative. The same could be true in other counterproliferation capability areas.
- Consequence Management
 - Pakistan's capacity to manage the consequences of conventional terrorist attacks probably is the most developed of any state in the region except India. However, Pakistan's capabilities are not sufficient to deal with the continual terrorist attacks and threats it faces. Moreover, we are not aware of any significant Pakistani ability to deal with the consequences of a WMD terrorist attack.
 - As in the other counterproliferation tasks, chances for successful cooperation will be greater if the stated aim is to mitigate the consequences of a terrorist attack. Part of the reason is that Pakistan may be more willing to cooperate against terrorism than against state proliferation. In addition, overt cooperation with Pakistan on managing the consequences of a WMD attack by another state would be seen as directed primarily at the Indian threat. Finally, as long as the danger of an India-Pakistan WMD conflict is

contained, a WMD terrorist attack would be the most likely development creating a Pakistani requirement for extensive WMD consequence management capabilities.

Philippines

- Threat Awareness
 - The Philippines has a mixed record in demonstrating awareness of the proliferation threat. On the positive side, it was an early participant in PSI. The Philippines also requested extensive counterproliferation assistance in its UNSCR 1540 Report; those requests explicitly acknowledged the potential for the terrorism threat facing the country to develop into a WMD threat.³² The Philippines adheres to the BWC and the IAEA Additional Protocol. On the other hand, the Philippines did not join the GI until the Nuclear Security Summit and did not make any other national commitments at the Summit. Moreover, it does not appear to have been a particularly active PSI member.
- Information Sharing
 - We are not aware of any bilateral or multilateral arrangements the Philippines has for sharing information on WMD proliferation and terrorism.
- National Legal Frameworks
 - The Philippines' 2004 report to the UNSCR 1540 Committee indicated that its national laws and regulations against WMD proliferation and terrorism were very weak. Unlike many of its regional neighbors, the Philippines acknowledged that fact in the report and indicated plans to put in place new security, export control and counterterrorism legislation by 2006. In its 2008 report to the 1540 Committee, the Philippines reported the passage in 2007 of legislation criminalizing terrorist activity (including WMD terrorism), but was silent on the other areas.
- Access Denial
 - The Philippines' 2004 report to the UNSCR 1540 Committee included a request for assistance for the physical protection of its research reactor. That would be a low priority

³² The Philippines has submitted three reports to the UNSCR 1540 Committee, on 28 October 2004, 28 October 2005 and 6 February 2008; it also submitted a brief update on 30 November 2005. See: United Nations Security Council, Security Council Committee established pursuant to resolution 1540 (2004), "Note verbale dated 28 October 2004 from the Permanent Mission of the Republic of the Philippines to the United Nations addressed to the Chairman of the Committee," S/AC.44/2004(02)/34, 4 November 2004; "Note verbale dated 28 October 2005 from the Permanent Mission of the Philippines to the United Nations addressed to the Chairman of the Committee," S/AC.44/2004(02)/34/Add.1, 1 November 2005; "Note verbale dated 30 November 2005 from the Permanent Mission of the Philippines to the United Nations addressed to the Chairman of the Committee," S/AC.44/2004(02)/34/Add.2, 7 December 2005; and "Note verbale dated 6 February 2008 from the Permanent Mission of the Philippines to the United Nations addressed to the Chair of the Committee," S/AC.44/2007/20, 4 August 2010.

for the United States, given that the reactor is LEU-fueled. We and our allies will have enough difficulty meeting the time goals of the Global Nuclear Lockdown to secure vulnerable weapons material. However, the Philippines' request indicates that it would be open to outside assistance and advice for nuclear security if and when it moves forward with civilian nuclear power.

- Detection

- The Philippines' UNSCR 1540 report put particular emphasis on requirements for assistance in detection and border monitoring. Specifically, it requested: "training and appropriate instruments for the detection of radioactive and nuclear materials;" "[e]nhancement and upgrade of container and cargo security in several seaports;" and "[d]rafting of appropriate laws governing border monitoring." Since then, the Megaports Initiative has begun operating at one Philippines port. The environment would also be ripe for detection upgrades at airports and additional seaports.

- Interdiction

- The Philippines was an early participant in PSI, but has not been particularly active in the effort, or in other interdiction-related activities. It has observed at least one PSI exercise – Pacific Shield, hosted by Japan in 2007.

- Consequence Management

- The Asian Disaster Preparedness Center has stated that, "[b]ecause of its geographic location, the Philippines is considered one of the most disaster-prone countries in the world," and that in consequence, it "has a long history of and a rich experience in disaster management."³³ Thus, it is not surprising that the Philippines' 2004 UNSCR 1540 report put greatest emphasis on the need for assistance to mitigate the consequences of a WMD terrorist attack:

"Since the Philippines are in the process of formalizing the chemical, biological and nuclear emergency and consequence management response organization, as part of our three-tiered defense plan against terrorism, to better prepare our emergency response teams, we would like to seek assistance through UNSCR 1540 on possible trainings that our first responders could avail themselves of.

Some of the training could be in the following areas:

- National protection training course
- Chief Instructor Training Programme
- Live agent training
- Medical Defense against Chemical Weapons
- SEF-TRAD [sic] international course

³³ Bildan, *op. cit.*, pp. 31-32.

- Civil Protection course
- International protection course.”
- In 2007, the U.S. Department of State provided the Philippines \$150,000 worth of WMD response equipment. While welcome, this was far less than the Philippines had requested.

Thailand

- Threat Awareness
 - In 2003, Thailand, as the Chair of that year’s APEC Summit, joined with the United States in pressing hard for the first APEC nonproliferation work plan. Its record since then is mixed in demonstrating awareness of the WMD proliferation and terrorism threats to the region. On the negative side, Bangkok has refused to join PSI despite repeated U.S. requests, and it announced GI participation only in the context of the national commitments at the April 2010 Nuclear Security Summit. On the positive side, it has cooperated with the United States in various proliferation prevention measures and is one of the few regional states explicitly to request international assistance to implement UN 1540.³⁴ It adheres to the BWC and has signed, but not ratified, the IAEA Additional Protocol.
- Information Sharing
 - Thailand likely would have little to offer in a proliferation-focused information exchange, but probably would be a willing consumer. Seriously open to question, however, would be Thailand’s ability to take needed action in response to any information received. Also uncertain would be the government’s ability to safeguard any sensitive information, given recent domestic instability that is likely to recur for the foreseeable future.
- National Legal Frameworks
 - In 2004, Thailand reported to the UNSCR 1540 Committee a range of laws and regulations governing exports and imports, money laundering, and biological security. However, it gave no details regarding any of those. It also reported plans to improve export controls by establishing an end-user certification system and comprehensive national control lists of WMD and dual-use items.

³⁴ Thailand has submitted one report to the UNSCR 1540 Committee. See United Nations Security Council, Security Council Committee established pursuant to resolution 1540 (2004), “Note verbale dated 5 November 2004 from the permanent Mission of Thailand to the United Nations addressed to the Chairman of the Committee,” S/AC.44/2004(02)/71, 10 December 2004.

- Access Denial

- Thailand has no nuclear or nuclear-related programs or assets beyond its LEU-fueled research reactor. Still, it reported to the UNSCR 1540 Committee plans to enhance nuclear site and material security. Thailand also reported plans to improve storage security and chain of custody over chemicals listed in the CWC, and to create stricter controls over imports of biological and chemical substances. In 2004, Thailand reported the following capacity-building needs to the UNSCR 1540 Committee:

“4.1 Thailand welcomes international support and assistance to help develop more effective national export, transit and transshipments controls over WMD, their means of delivery and related dual use items.

“4.2 Thailand seeks advice from experts on identification of WMD-related materials and dual use items.’

- Thailand also reported to the UNSCR Committee a generalized need for capacity-building in many interdiction-related elements:

“4.3 Thailand needs training courses and workshop to exchange views and experience on how to effectively detect, deter, prevent and combat the transport of illicit WMD and related materials as well as trafficking and brokering which is consistent with international law.”

- Detection

- Thailand occupies a sensitive geographic position – lying along major maritime routes, and also sharing a long land border with Burma. DOE has completed a Megaports installation at Laem Chabang port. And, DHS has provided x-ray equipment there under CSI. State Department’s EXBS program is active in the country. Thailand has also enhanced security at four major land border crossings. Further, in 2004 Thailand reported to the UNSCR 1540 Committee its intention to “[i]ntensify and enhance the existing implementation of Closed Circuit Television Systems and X-Ray container equipment, as well as initiate the implementation of Tracking Systems, in every important port around the country....”

- Interdiction

- We are not aware of any interdiction-related activities by the Government of Thailand. It was one of the few South/Southeast Asian Governments not to participate in or observe the PSI exercise Pacific Shield, hosted by Japan in 2007.³⁵

³⁵ Australia, New Zealand and Singapore (along with France, Japan, the United Kingdom and United States) actively participated in Pacific Shield '07. Thirty-four states observed, including several from South/Southeast Asia: Brunei, India, Laos, Malaysia, Pakistan, Papua New Guinea, Philippines and Vietnam.

- Consequence Management
 - We have no information on Thailand’s capabilities for (or interest in) WMD consequence management. Like Malaysia, it is one of the few regional states that does not participate in the UN International Strategy for Disaster Reduction. Still, Thailand is assessed by the ADPC as facing a severe coastal flooding threat – one that has been tragically realized more than once since the ADPC published its assessment.³⁶

Vietnam

- Threat Awareness
 - Vietnam’s awareness of the proliferation threat is open to question. It adheres to the BWC and has signed, but not ratified, the IAEA Additional Protocol. Vietnam’s submissions to the 1540 Committee repeatedly emphasize that action against proliferation should not impede legitimate trade; while that position is unassailable on one level, the way in which it is presented implies that free trade is much more important to Vietnam than countering proliferation.³⁷ A central task for the United States would be to persuade Vietnam (and many of its neighbors) that they posit a false choice; contrary to their expectations, success in countering WMD proliferation is essential for long-term trade and economic well-being.
 - On a more positive note, Vietnam joined Thailand and the Philippines as the only regional states to report to the 1540 Committee specific assistance requirements for countering WMD. That request was submitted in 2008, four years after the passage of UNSCR 1540 – perhaps reflecting a greater Vietnamese appreciation of the proliferation threat. Perhaps in the same vein, Vietnam announced at the April 2010 Nuclear Security Summit that it would join the Global Initiative, and convert its research reactor to LEU.
- Information Sharing
 - Some of Vietnam’s 1540 implementation requests concerned the provision of information, suggesting that the United States and other like-minded countries may have an opening to help raise Vietnam’s awareness of the proliferation threat. Any such

³⁶ Bildan, *op. cit.*, p. 4.

³⁷ Vietnam has submitted three reports to the UNSCR 1540 Committee, on 26 October 2004, 12 December 2005 and 7 March 2008. See United Nations Security Council, Security Council Committee established pursuant to resolution 1540 (2004), “Note verbale dated 26 October 2004 from the Permanent Mission of Viet Nam to the United Nations addressed to the Chairman of the Committee,” S/AC.44/2004(02)/39, 28 October 2004, “Note verbale dated 12 December 2005 from the Permanent Mission of Viet Nam to the United Nations addressed to the Chairman of the Committee,” S/AC.44/2004(02)/39/Add.1, 30 December 2005, and “Note verbale dated 7 March 2008 from the Permanent Mission of Viet Nam to the United Nations addressed to the Chairman of the Committee,” S/AC.44/2007/12, 15 April 2010.

information sharing would undoubtedly be one-way, at least at first, but that should not be a deterrent.

- Vietnam's information-related requests to the 1540 Committee for "assistance in combating WMD and their related materials" were as follows:

"2. Information on non-proliferation and terrorism prevention in general, and on transborder smuggling and transport of banned goods, and state crimes in particular;

"3. Opportunities to participate in conferences, exchange experience between Viet Nam Customs and Customs of other countries, and international organizations in the non-proliferation field."

- National Legal Frameworks

- Vietnam has reported to the UNSCR 1540 Committee several laws and regulations prohibiting violations of the CWC and BWC and trafficking in nuclear or radiological material. However, the chemical and biological-related strictures appear to be quite weak. Trafficking in banned goods "in great quantity" or for "great illicit profits" earns only a fine or a prison term between six months and five years.

- Nuclear- or radiological-related proliferation is handled more strictly. Illegal production, trade or use of radioactive materials are subject to two-to-seven years imprisonment – five-to-twelve if "in great quantity," involving cross-border activity, or "causing serious consequences." Prison terms increase further commensurate with quantities and seriousness of consequences.

- Access Denial and Detection

- Other 1540 assistance requests by Vietnam concern means to deny access to WMD and materials, and to detect proliferation:

"a) A database system to keep track of those who exchange and sell weapons, and of terrorists; establish an up-to-date technology system within and outside the Customs sector for compliance management, risk management and exchange of electronic data, so as to control most effectively the transport of WMD; ...

"d) Means to strengthen goods control and monitoring (such as video cameras, X-ray machines);

"e) Training in skills to detect, identify and control WMD and their related materials."

- Vietnam has cooperated with DOE on the removal of HEU from its research reactor and the reactor's conversion to LEU. Its plans to construct two nuclear power plants in the next ten years reinforce a requirement for expanded nuclear security cooperation. Vietnam's geography, with the bulk of the country on or near the coast, suggests that

maritime detection and port security are the highest near-term priorities for access denial. In July 2010, Vietnam took the important step of agreeing to a DOE Megaports installation at the port of Cai Mep.

- Interdiction
 - There seems little chance that Vietnam will join PSI in the foreseeable future. Nevertheless, as shown by its willingness to observe at least one PSI exercise, Vietnam likely would be open to PSI-related meetings, exercises and other training mechanisms that involve Initiative members and non-members. Maritime domain awareness would be an especially promising and important area for cooperation.
- Consequence Management
 - The threat of a WMD attack, by a state or terrorist group, is probably lower in Vietnam than in any other state on our priority list. That does not mean there is no danger, but Vietnam is not a terrorist target or haven, and does not appear to have any WMD-armed adversaries. As a result, we would not assign a high priority to building Vietnamese consequence management capabilities; other counterproliferation tasks seem much more important.

IV. PARTNERSHIP OPPORTUNITIES

Potential Partners in Helping to Build Counterproliferation Capabilities

We have assessed the suitability of potential partners according to the following criteria:

- Counterproliferation skills, assets and commitment;
- Personnel, financial, technical and organizational resources;
- Willingness to lead and to, provide assistance;
- Credibility and trusted relationships – or at least acceptability – with one or more priority countries;
- International and regional standing.

Potential Partners within the Region

Within the region, the candidates are Australia, New Zealand, Singapore, and India.

Australia ranks high on all the criteria. It is very active in PSI and the GI, has good relations with its neighbors in Southeast Asia, and works closely with DOE on nuclear security projects in the region.

New Zealand and Singapore would have to be persuaded to devote the necessary resources. Singapore is strongly committed to counterproliferation but claims that it lacks the personnel resources to be consistently active in the effort. New Zealand has been an active participant in PSI, but is more oriented to nonproliferation than counterproliferation efforts.

India's resources are substantial and it has a strong (and growing) interest in leadership in Southeast Asia. Moreover, it appears politically acceptable to all the regional states identified as priorities in this study – with the obvious exception of Pakistan. Indeed, most Southeast Asian states – including the Islamic Indonesia and Malaysia – welcome India as a counterweight to Chinese (and possibly U.S.) influence in the region. Further, India's commitment at the April 2010 Nuclear Security Summit to create a center of excellence of nuclear energy and security may offer a special opportunity for it to help build regional capabilities to prevent nuclear proliferation. Nevertheless, India's counterproliferation commitments are uneven, as is its willingness to work with the United States and other partners on international security issues.

In that regard, there may be promise in the new cooperation announced during President Obama's November 2010 visit to India. During the visit, the President said: "Given India's growing role in the region, we also agreed to deepen our consultations on East Asia."³⁸ The Joint Statement from the meeting stressed cooperation against WMD, but in the context of countering terrorism rather than proliferation:

³⁸ The White House, Office of the Press Secretary, *Remarks by President Obama and Prime Minister Singh in Joint Press Conference in New Delhi, India*, November 8, 2010, p. 2., at <http://www.whitehouse.gov/the-press-office/2010/11/08>.

“They expressed a commitment to strengthen international cooperative activities that will reduce the risk of terrorists acquiring nuclear weapons or material without reducing the rights of nations that play by the rules to harness the power of nuclear energy to advance their energy security. ... The two sides welcomed the Memorandum of Understanding for cooperation in the Global Centre for Nuclear Energy Partnership being established by India. Both sides expressed deep concern about the threat of biological terrorism and pledged to promote international efforts to ensure the safety and security of biological agents and toxins.³⁹”

Potential Partners Near the Region

Among near neighbors to the region, the main potential donor partners are Japan, South Korea and China.

Japan ranks high on most, but not all, of the criteria. It has already taken a strong leadership role in PSI and in regional nonproliferation/export control discussions. There may also be real promise in the new Japanese Integrated Support Center for Nuclear Nonproliferation and Nuclear Security, and U.S.-Japan Nuclear Security Working Group, whose work is to include “development of expertise on nuclear security, particularly in the Asia-Pacific region where nuclear power utilization is expected to increase.”⁴⁰ Two question marks are: Japan’s willingness to devote significant financial resources to building partner counterproliferation capacity; and lingering Southeast Asian antipathy to Japan. Japanese foreign assistance was once very high, but has declined precipitously since its economic downturn began several years ago.

South Korea has not acted in this area in the past, but the current government is eager to be an active participant in PSI, GI and the Nuclear Security Summit follow-through. It has not yet shown interest in expanding that activism to help build regional counterproliferation capabilities, but might be persuaded to do so.

China, like India, committed at the Nuclear Security Summit to assist other countries through a Nuclear Security Center of Excellence. That activity would be welcome. Comparable cooperation on biosafety, biosecurity, disease surveillance and response might also be developed, especially using some of the good relations in this area that have developed between U.S. and Chinese scientists. Finally, Chinese assistance to other states in the region with the more active components of counterproliferation (especially interdiction and information sharing) is probably not feasible or desirable. China has great resources, but its counterproliferation commitments are highly questionable and it is viewed as a threat by many states in the region.

³⁹ The White House, Office of the Press Secretary, *Joint Statement by President Obama and Prime Minister Singh of India*, November 8, 2010, p. 2, at <http://www.whitehouse.gov/the-press-office/2010/11/08>.

⁴⁰ The White House, Office of the Press Secretary, *Fact Sheet on New Initiatives*, November 12, 2010, and *Fact Sheet on U.S.-Japan Cooperation on Reducing Nuclear Risks*, at <http://whitehouse.gov/the-press-office/2010/11/12>.

Potential International Mechanisms

G-8 Global Partnership (GP). The June 2010 G-8 Summit failed to agree to extend the GP for another ten years (through 2022), with another \$20 billion commitment, and expand assistance worldwide. Almost all members were willing, but Germany blocked consensus. The U.S. could reach out to other G-8 members and additional GP donors (like Australia, New Zealand and South Korea) to act in South/Southeast Asia despite the failure at the G-8 Summit.

Canada, the G-8 President in 2010 and strong GP advocate, considered establishment of standing G-8 working groups in assistance areas. Consideration should be given to G-8 working groups focused on biological proliferation prevention, as well as on implementing the Nuclear Security Summit goals and UNSCR 1540.

Nuclear Security Summit. All participants in the April 2010 Nuclear Security Summit endorsed the goal of Global Nuclear Lockdown in four years and committed to provide assistance as appropriate and possible. Sous-Sherpas and Sherpas will meet every few months between now and the immediate run-up to the next Nuclear Security Summit, to be hosted by South Korea in 2012.

Continuing Sherpa and Sous-Sherpa communications, and the special opportunity offered by the Asian chairmanship in 2012, suggest a particular opportunity to enlist assistance in meeting nuclear security goals in Southeast Asia. That is reinforced by the Chinese and Indian decisions to create nuclear security centers of excellence, and by the recent establishment of the U.S.-Japan Nuclear Security Working Group. A further impetus could be provided if regional participants in the Nuclear Security Summit process held a regional nuclear security seminar – including both Summit participants and non-participants – as Poland did for Central and Eastern Europe in late summer 2010.

UNSCR 1540 Committee. The Committee was formed to be a repository of information on the status of national implementation of UNSCR 1540 and to facilitate implementation assistance for those requiring it. It has been a disappointment in both respects, and especially the second.

Virtually all states in South and Southeast Asia submitted the required national reports shortly after UNSCR 1540 was passed in 2004; Timor Leste is the sole exception. Although those varied greatly in quality, at least they provided some information. Since then, most countries have failed to provide the required annual updates, or have done so only sporadically. One reason for the falloff in reporting may be the absence of concrete assistance. Potential recipients fail to see a benefit in continuing reports, while potential donors continually state their willingness to provide assistance, with little or no follow-through. The idea of a G-8 GP standing group on UNSCR 1540 implementation might help move that forward.

PSI and GI. The refusal of many – indeed, most – South/Southeast Asian states to join PSI definitely constrains the extent to which the initiative can be used as a vehicle for regional counterproliferation capacity-building. However, the number of Asian-hosted PSI events in recent months may help encourage regional states to become more active. Australia hosted a regional PSI Operational Experts Group (OEG) meeting and exercise in September 2010, South

Korea hosted an exercise for the first time in October, and Japan hosted a full OEG in November. At that meeting, the OEG added South Korea to its membership – the first addition to the group in over six years. Nonetheless, PSI remains controversial in the region. It is telling that of the 15 states joining the October South Korean exercise as participants or observers, only four were from the region. Australia, Japan and South Korea were three of the four states to include naval or air forces in the exercise; the United States was the fourth. New Zealand observed.

The GI may be a more promising vehicle – especially if members can take advantage of – and reinforce – any momentum created by the recent accession of several regional states (Vietnam, the Philippines, Singapore and Thailand). The GI membership of China, India and Pakistan demonstrates that this initiative is far less controversial in the region than is PSI. Moreover, the 2010 GI Plenary Meeting, in June 2010 agreed to move toward a greater action focus, through a new Terms of Reference and activation of the Implementation and Assessment Group.

U.S. Vehicles for Building Counterproliferation Capabilities

Central instruments for building counterproliferation capabilities in South and Southeast Asia will be U.S. activities in PSI, other USPACOM theater cooperation programs, and important U.S. assistance programs like DOE's Global Threat Reduction Initiative (GTRI) and Second Line of Defense (SLD) programs, DoD's Cooperative Threat Reduction (CTR) effort, the State Department's Biological Engagement Program (BEP) and EXBS.

Some important states in the region are reluctant to participate in those efforts for political reasons. This does not mean that the United States should curtail or abandon efforts to help build counterproliferation capabilities in the area. Instead, where required and possible, the United States should use less politically controversial mechanisms for the purpose, including the Global Initiative, G-8 Global Partnership, UNSC 1540 Committee, and the continuing Nuclear Security Summit Sherpa process. Relevant regional efforts should also be used; examples include the REDI Center, APEC and – if they can develop a greater counterproliferation focus – U.S.-ASEAN and ASEAN plus three.

In many of those cases, the U.S. role would be just as great as in CTR, GTRI, BEP and PSI – only the packaging would be different. In other cases, the United States should be less prominent, and urge a more active and prominent role by other partner countries, including G-8 partners, Australia, New Zealand, South Korea and Singapore. Sequencing of cooperative efforts will also be important. For example, a state might be willing to work with us on nuclear security or enhanced export controls, but not on active interdiction capabilities. Over time, positive experience with cooperation could help build the relationships – and the threat awareness – needed for more active work. The same process could apply in the biological area; for example, states might be open to initial cooperation in biosafety and diagnostics, building later to disease surveillance and biosecurity.

Receptivity of Priority Countries

The Philippines and Thailand appear most open to cooperation with the United States and others to build counterproliferation capabilities.

Vietnam is also a promising recipient. We should build on and reinforce the various cooperative efforts under way there.

Pakistan presents the most complex situation of any state in the region, for several reasons. Judging by its new attitude toward biological safety and security work with DoD CTR, it may be increasingly open to cooperation against WMD proliferation and terrorism. But the environment will remain severely challenging, from a security perspective if not a political one as well.

Malaysia has shown some willingness to work with the United States, mainly through the Megaports Initiative. We could seek to build on that, at least through the EXBS program. However, it might be more productive to urge Australia, New Zealand – and potentially India – to work more closely with Malaysia. It probably would not be helpful for Singapore to take a leading role there, given the lingering rivalry between the two countries.

Indonesia has been the most resistant of the priority countries in South/Southeast Asia. Despite its exposure to terrorist threats, it has not been willing explicitly to recognize any need for capacity-building – let alone for working with the United States on the effort. We should explore with Australia, India and perhaps New Zealand their willingness to take leading roles with Indonesia in this area. In addition, we may be able to build on the President's November trip to Indonesia, the bilateral Defense Framework Agreement signed in June 2010, and Secretary Gates' trip to the country in July 2010. While none of those mentioned WMD threats or counterproliferation, they did cite counterterrorism and maritime security as subjects of U.S.-Indonesian – including military-to-military – cooperation. The White House also cited U.S. (including DoD) assistance to Indonesia for natural disaster preparedness, which might help build WMD consequence management capability.⁴¹ Finally, in the biological area, we might be able to build on the regional work in the REDI Center and on the September 2009 agreement to create an Indonesia-U.S. Biomedical and Health Research Center.

⁴¹ See The White House, Office of the Press Secretary, *Joint Declaration on the Comprehensive Partnership between the United States of America and the Republic of Indonesia*, November 9, 2010, at <http://www.whitehouse.gov/the-press-office/2010/11/09>; the White House, Office of the Press Secretary, "Fact Sheet: U.S. Response to Natural Disasters in Indonesia," *Fact Sheets: The United States and Indonesia – Building a 21st Century Partnership*, November 9, 2010, at <http://www.whitehouse.gov/the-press-office/2010/11/09>; and U.S. Department of Defense Office of the Assistant Secretary of Defense (Public Affairs), News Transcript, *Media Roundtable with Secretary Gates from Jakarta, Indonesia*, July 22, 2010.

V. RECOMMENDATIONS

The political-strategic environment for building counterproliferation capabilities in South/Southeast Asia creates a clear dividing line between Pakistan on the one hand and the region's potential partners and other priority states on the other. Coincidentally, and conveniently, that dividing line follows the separate Areas of Responsibility (AOR) for USPACOM and USCENTCOM.

Pakistan participates in many Asian regional groupings and in the GI with other key regional states, but it does not have close relations with any of them. Nor is it likely to develop such relationships, given its domestic difficulties and India's high standing in Southeast Asia. Treating Pakistan separately from India and Southeast Asia also makes sense from a U.S. policy standpoint, in light of the serious proliferation and terrorist threats Pakistan faces and the war in Afghanistan. As a result, the United States – and DoD in particular – have a close and continuing, if problematic, relationship with Pakistan unlike any they have with any other regional state.

Recent, highly visible U.S. engagement in Southeast Asia – if followed up quickly – may improve regional states' receptivity to cooperating with the United States, including against WMD proliferation and terrorism. This could be especially true for India and Indonesia in the wake of the President's November 2010 visits. Nonetheless, as discussed above, several priority countries in the region are wary of the United States in general and DoD in particular. Moreover, none of the priority countries fully shares U.S. concerns about WMD proliferation, while the opposite is true for three of the four states we have identified as potential partners (Australia, New Zealand and Singapore).

Southeast Asia - Basic Guidelines

Those considerations suggest the following basic guidelines for U.S. efforts to build counterproliferation capabilities in Southeast Asia:

First, to the extent possible, the United States should work closely with potential regional partners in seeking to engage priority countries in this effort. Australia will be the most eager to do so; DOE already works to good effect with Australia on all its nuclear security projects in Southeast Asia. New Zealand and Singapore will be less eager; we might start with both countries by asking what we could do to help them reach out to other regional states. India likely would be a harder sell, although the planned cooperation on its center of excellence on nuclear energy and security may provide an important opening.

Second, the United States should devote full attention to the proliferation-related security issues on the agenda of leading regional organizations like APEC, ASEAN, EAS and the ARF. Pressing the agenda too hard could be counterproductive – as likely occurred with the U.S. effort to create a practical APEC nonproliferation work plan. Japan should be encouraged to reach out to Southeast Asian states on proliferation issues. A comparable South Korean effort might be counterproductive unless handled carefully; the thin Asian participation in the October 2010

South Korean PSI exercise likely resulted from regional states' reluctance to be involved in South-North Korean tensions.

- Most Asian regional organizations are ill-suited to take direct action in building counterproliferation capabilities (except for the important threat awareness task). Exceptions might be in the biological area, where the REDI Center, the proposed U.S.-Indonesia Center and even the WHO regional centers might help build capacity for disease prevention, surveillance and response.

Third, counterproliferation capacity-building in Southeast Asia is more likely to succeed if it is relevant to threats of which the regional states are better aware than they are of WMD proliferation. In the biological area, capabilities should address the dangers of naturally-occurring disease as well as of deliberate attack. In the nuclear area, capabilities will be more valued – indeed, more acceptable – if they are seen as providing security for civilian facilities and for countering terrorism more than proliferation. Assistance to build WMD consequence management will be more welcome if it is directly applicable to the natural disasters and terrorist threats to which the region is exposed.

Fourth, and by the same token, DoD should channel counterproliferation capability assistance through other U.S. Government agencies, if they are better equipped – politically and/or technically – to work with the specific countries. Thus, CDC might implement biological prevention, surveillance and response projects; the Coast Guard might help train and equip coastal maritime forces; Customs and Border Patrol could help enhance border security; the State and Justice Departments could assist improvements to national legislation and implementation. Other U.S. Government agencies should be encouraged to devote their own resources to this effort, but in many cases (CDC is a prime example), DoD is much more likely to have the needed funds.

That, in turn, demonstrates the importance of a fifth guideline: any program to build counterproliferation capabilities in South/Southeast Asia must be an integrated U.S. Government-wide effort. Diplomatic, military, economic, intelligence, law enforcement initiatives and activities – led by a range of different U.S. Government agencies – must work in concert. That is essential to minimize gaps, redundancies and potential conflicts among U.S. efforts, as well as to ensure that highest priorities U.S. interests are being addressed.

Sixth, DoD efforts in this area in South/Southeast Asia should be incremental, aiming at initial projects that are welcome and useful to both sides and that might help build trust and habits of cooperation leading to broader efforts. That was the model followed in the former Soviet states at the outset of the Nunn-Lugar program, and would be equally applicable in any region where the recipient state is unconvinced of the importance of the mission and/or wary of working with DoD.

Seventh, whether working through other states or directly, DTRA and USPACOM should seek to engage resistant states like Indonesia and Malaysia and difficult ones like Pakistan. However, they should not waste significant time and effort in those attempts if results are not forthcoming within a reasonable time. Instead, DTRA and USPACOM should turn to more receptive

countries. To do so would be the most efficient use of limited resources. Moreover, the example of productive cooperation elsewhere in the region might help convince the more resistant states to adopt a new approach.

Eighth, to enhance the chances for both country receptivity and sustainability of new counterproliferation capabilities, the U.S. Government should seek to engage senior (and prospective future) leaders in priority countries in a “capstone-type” approach that would acquaint them with the full range of WMD threats and actual and potential capabilities to counter them.

Finally, to the extent possible, DoD should take a regional approach to counterproliferation capacity-building. That would help implement many of the other guidelines provided here. Again, all of the priority and partner countries identified in this study – with the single, important exception of Pakistan – would be candidates for various regional configurations. Strong consideration should be given to expanding the DTRA office in Embassy Singapore to be a focal point for DTRA activities in the region. Further, close USPACOM involvement in the overall effort would be essential for, and help foster, such a regional approach. The CTR Defense and Military contacts funds should be channeled to select regional COCOMS primarily – or even exclusively – for counterproliferation capacity building in key regions. USPACOM would be a prime candidate. While USPACOM would be the executive agent for these funds, DTRA should remain closely involved in all decisions on their use.

That closer relationship between DTRA and the regional COCOMs would require enhancement of the role and access of the DTRA LNOs. They should be O-6s or at least O-5s serving defined tours, first at DTRA Headquarters and then in the field, to improve their ability to strengthen the DTRA-COCOM relationship. Too many LNOs now are relatively junior, with little access to COCOM leadership, and/or civilians with essentially permanent posts at the COCOM Headquarters and consequently weak or dated first-hand knowledge of DTRA.

Southeast Asia - Priority Counterproliferation Tasks

Threat Awareness and Information Sharing.

The intelligence community should hold regular briefings on WMD proliferation and terrorism threats with those regional governments who are receptive to U.S. information on those issues. We should encourage those sessions to be true exchanges. However, we should also be realistic that they would primarily be one-way, and recognize that information provision benefits the United States if it raises threat awareness.

Such U.S. briefings would not be effective with the many states in the region who view U.S. proliferation and terrorism concerns skeptically. With those states, we should instead take the following steps (which could also be used – in addition to U.S. briefings – with countries that are receptive to U.S. information):

- Encourage like-minded states in the region and near-neighbors – Australia, New Zealand, Japan, Singapore – to reach out bilaterally and in multilateral regional fora to raise threat awareness;
- Foster maximum participation by other states in the GI and the Nuclear Security Summit Sherpa process;
- Support regional workshops and conferences at the REDI Center and, if possible, the WHO regional centers;
- Improve the PSI and GI web sites' transmission of timely unclassified WMD proliferation and terrorism threat information;
- Discuss with leading U.S. participants in CSCAP ways in which the United States or other like-minded governments could assist its effort to focus regional attention on WMD proliferation threats. (It may be that the best thing governments could do would be to stay away – if CSCAP's independence heightens its regional credibility.)

DTRA should work with the Intelligence Community to identify the kinds of intelligence information related to WMD proliferation or terrorism that may be shared with individual states in the region. A first purpose would be to maximize the usefulness of regular intelligence exchanges with receptive regional states. A second would be to help other states (e.g., Australia) prepare general threat awareness information for regional countries. A final aim would be to determine, insofar as possible, what types of information might be shared with individual states in the event of a future proliferation or terrorism threat or interdiction requirement/opportunity. There would undoubtedly be strict limits to how far the latter type of permitted information could be defined in advance, but it would be worthwhile to see how far we could do so.

National Legal Frameworks.

DTRA should discuss with the State Department how the State EXBS program and the DTRA International Counterproliferation Program (ICP) could work together to enhance legislation and enforcement in the region to counter WMD proliferation and terrorism. EXBS has long been active in the area, but gaps undoubtedly remain. Consideration should be given to increasing the ICP budget to allow it both to expand geographically and, above all, to sustain its activities in individual states and regions.

DTRA should also explore with the State Department whether we might approach interested states (like Australia, New Zealand, Singapore, Japan) about the desirability of proposing that a relevant regional organization appoint a 1540 Coordinator. The aim would be to replicate the successful experience of the Caribbean Community (CARICOM) Coordinator. The ARF would be the most appropriate sponsor, given its broad regional membership and security focus. ASEAN and APEC would be possibilities as well if North Korea blocked ARF action. The Coordinator could be based in the organization secretariat.

Finally, DTRA should discuss with the State Department and Department of Health and Human Services the possibility of holding regional workshops on national legislation to help maintain biosafety, biosecurity and nonproliferation. Such workshops could be at the REDI Center or at the WHO regional centers. They could be offered as offshoots of the experts discussions that have been part of the BWC work program for the last several years.

Access Denial and Detection

DTRA is discussing with DOE ways in which the CTR program might contribute to Global Nuclear Lockdown and to broader enhanced nuclear security. The absence of HEU and Plutonium in South/Southeast Asia – with the obvious, but inaccessible, exceptions of India and Pakistan – make the region a poor candidate for Global Nuclear Lockdown. But general nuclear security upgrades are required, and will be more important as the region turns increasingly to nuclear energy.

A critical opportunity here will be work with India and China to help set up the centers of excellence that they announced at the April 2010 Nuclear Security Summit. DTRA and DOE could also work with regional states to ensure that all security infrastructure, procedures and expertise are in place before the operation of any new civil nuclear energy power plant.

DOE has installed several Megaports installations in the region, but much work remains to be done for security upgrades at airports, additional seaports and land border crossings. This could be an important area for division of labor between DOE and CTR, with the collaboration of other donor states. Those donors could include Australia, New Zealand and Japan, and also potentially other participants in the G-8 Global Partnership; Canada might be a prime candidate, given its support for the GP, APEC membership and interest in Asia.

DTRA should also work with CDC, the REDI Center and potentially the WHO on developing a regional program covering disease prevention (including biosafety and biosecurity), surveillance and response. India might be an interested partner, given its extensive biological work. This would be a critical effort, given the paucity of other comparable programs in South/Southeast Asia, the region's status as "the world's Petri dish" for widespread infection, and the plans for explosive growth in BSL-3 facilities.

DTRA should continue close work with Singapore, and potentially other regional states, on maritime detection. Research and development on more advanced capabilities will remain essential, but it will also be important to equip regional maritime forces with existing capabilities. Here too we might want to explore working through or with another donor country if regional states are unwilling to accept U.S. assistance. Finally, DTRA should cooperate with PACOM, Singapore and potentially other regional states on enhancing the operational use of detection capabilities, through procedure development, training, table-top exercises and live exercises if possible.

Interdiction

The United States should explore with Australia, New Zealand, Japan and South Korea ways in which to expand and sustain PSI regional outreach – through meetings as well as table top and live exercises to which most neighboring states would be invited as participants or observers. Australia initially planned to invite many area states who have not yet endorsed the PSI to its regional OEG meeting in September; reportedly it canceled that plan because of the expense involved. DoD and other leading PSI partners should ensure that sufficient funds are available in the future. Funds could be pooled; there is no need to require that the host of a meeting or exercise pay most of the expenses. Further, regional members of PSI should be encouraged to host more table top exercises with wide participation. While not as visible as live exercises, they perform important training functions and help to acquaint non-members with the workings of PSI at much lower cost.

Expanding on the detection upgrades discussed above, DTRA should work with USPACOM, JIATF-West and/or the Coast Guard to train and equip maritime patrol forces in the region. That work need not – and in the cases of Malaysia, Indonesia and Vietnam should not – be billed in PSI or even necessary WMD proliferation terms. Instead, the stated aim would be to enhance countertrafficking capability in the region. This would enhance the political acceptability of the work to non-PSI members, and also foster working relationships that might lead to greater (and more WMD-specific) cooperation in the future.

Consequence Management

Consequence management is not the highest priority counterproliferation task in South/Southeast Asia for DoD, but it may hold particular promise in helping to build cooperative relationships that can broaden and deepen over time. All states of the region face severe natural disaster risks that few are equipped to handle. Enhanced ability to manage natural disasters and conventional terrorism would apply to WMD events as well. An especially promising mechanism for building capacity in this area might be the National Guard State Partnership Program (SPP). Under the SPP, the Hawaii National Guard partners with the Philippines and Washington State with Thailand. New partnerships should be encouraged with Vietnam, Malaysia and Indonesia.

Helping to build disease response capability, to manage the consequences of a natural or deliberate disease outbreak, is critical for this region. DTRA should work with CDC, the REDI Center and WHO to expand and improve the region's disease surveillance and response capability.

Pakistan – Basic Guidelines

Just as Pakistan has no South/Southeast Asian regional partners for building counterproliferation capabilities, the United States is its sole likely partner in this area. There are few, if any, other states that would be willing to join in this effort and be acceptable to both Pakistan and the United States.

U.S. cooperation with India in WMD-related areas inevitably reduces Pakistani willingness to work with us on the same issues. That clearly occurred after the July 2005 U.S.-India nuclear agreement, and would most likely be heightened if the United States succeeds in cooperating with India in building Southeast Asian counterproliferation capabilities.

The U.S. Government has a greater presence in Pakistan than it does in any Southeast Asian state, but that does not facilitate counterproliferation cooperation. On the contrary, the two governments – and the two militaries – are too consumed by the immediate threats from Afghanistan and Al Qaeda to devote much, if any, attention to WMD dangers that would be catastrophic if realized but do not appear imminent.

Further, the single greatest U.S. aim regarding WMD in Pakistan is that failure of the Pakistani state not lead to nuclear disaster – through proliferation to other states or terrorist groups, through accident, or through actual use against India. That aim must be pursued in the context of the constraints of Pakistani secrecy and U.S. legal obligations under the NPT. The overriding concern with the WMD consequences of domestic instability in Pakistan means in a very real sense that the main priority counterproliferation task in that country is to shore up its stability and control. The other counterproliferation tasks identified in this study must be pursued in that context.

Pakistan - Priority Counterproliferation Tasks

Threat Awareness and Information Sharing

Pakistan is a poor candidate for regularized intelligence briefings and exchanges on state WMD proliferation, given our continuing concerns about its proliferation behavior. We also have major concerns about support by some Pakistani officials for terrorism. Nevertheless, we should seek to include a discussion of the terrorist threat in official exchanges with Pakistan.

National Legal Frameworks

This will not be a productive avenue to pursue unless and until Pakistan clearly becomes committed to prevent and counter – rather than to foster and/or protect – WMD proliferation. The treatment of A.Q. Khan shows that we are far from that point.

Access Denial and Detection

DTRA should work with DOE on possible expansion of the Megaports installations in Pakistan, and upgrades to airport security. Land border security work is impractical, given that the areas involved basically are either lawless or face India.

CTR is discussing initial projects in Pakistan, all under the Cooperative Biological Engagement Program (CBEP). In time, those might help prevent biological weapons proliferation through increased security and also facilitate disease surveillance and response.

Interdiction

We cannot expect Pakistan to join PSI in the foreseeable future. However, we should seek to include it as far as possible in outreach meetings, table top and live exercises. That could be difficult, given the higher priority of engaging India in these efforts and eventually in the Initiative itself.

The United States should discuss with Pakistan possible cooperation with USCENTCOM and/or the Coast Guard to train and equip maritime patrol forces. Any such offer should be extended to India as well. The work could be described in counterproliferation, counterterrorism and/or countertrafficking terms. All those purposes would apply.

Consequence Management

Improved abilities to cope with the consequences of natural disaster, disease and terrorist attack are critical requirements for Pakistan, and would apply as well in the case of WMD attack. USCENTCOM has performed critical roles in helping Pakistan develop enhanced consequence management capabilities. The State Department, DHS and HHS should all be involved in that effort, for several reasons: to make the capability-building process as multifaceted as the threat; to take some of the burden off USCENTCOM in that process; and to improve the chances that those other U.S. Government agencies would be able effectively to join USCENTCOM if and when the United States has to help Pakistan respond to an actual natural disaster, disease outbreak, terrorism, or WMD attack.

LATIN AMERICA

I. REGIONAL SETTING

Latin America presents a counter-WMD challenge that differs in character from that of other regions. Although several countries in the region possess the requisite infrastructure to develop nuclear weapons and offensive biological capabilities, no known WMD programs are currently attributed to Latin America. At present, the primary WMD-related concern for this region is the potential for Latin America to be used as a transshipment location for WMD originating elsewhere to be smuggled into the United States. This concern stems from the following factors:

- Geography of the region and proximity to the United States;
- Weak government control and legal frameworks in many states;
- Well established networks for illegal trafficking of various goods (e.g., drugs, arms, humans, exotic animals);
- Anti-US policies of state governments such as in Venezuela, Bolivia, and Cuba; and
- Growing influence of Iran, a state sponsor of terrorism, as well as established non-state extremist groups, including those affiliated with Hezbollah and Hamas.

Geography

Two aspects of the region's geography are of specific interest:

- The United States and Mexico share an almost 2,000-mile-long border. The only land access into the United States from Latin America is across this border.
- There is a well established network of air and water routes between the United States and Latin America. These routes are used routinely by business and vacation travelers.

Latin America lies well outside the routes typically investigated for WMD and missile proliferation. As a result, most observers assign the region a low priority for combating proliferation. However, in addition to the above geographical factors, still other factors indicate that Latin America may become a region of increased proliferation concern:

- The A.Q. Khan network demonstrated that proliferation networks may operate anywhere – and may particularly favor locations outside regions of traditional scrutiny; with current communications and transportation means, any inconvenience resulting from distance between the proliferators and their clients is relatively limited – and may be significantly outweighed by the advantages of operating in obscurity.
- Large-scale trafficking of narcotics, conventional arms, and human beings – and the concomitant money smuggling and laundering – occur in a number of states in the region. Colombia, Mexico, Peru, Bolivia, Ecuador and Jamaica are important narcotics

producers. Human trafficking is significant in Jamaica, the Dominican Republic, Nicaragua, Guatemala and Ecuador. All Central American states are used as transit points for drugs and money.

- There is no known evidence that WMD proliferation networks have begun operating out of Latin America or that narcotics-, arms- and/or human- traffickers have added WMD to their product lines. But the potential payoff (from a trafficker's point of view) of doing so may be high – and, therefore, the consequent potential proliferation threat needs to be taken seriously.

Potential WMD Programs in the Region

Potential Nuclear Weapon Programs: Brazil and Argentina have the most developed nuclear power infrastructures in the region. Until the late 1980's, both pursued clandestine nuclear weapons programs, with enrichment facility construction developed under the cover of civilian nuclear energy. In 1990, the new civilian leader of Brazil disclosed – and ended – the nuclear weapons effort. Argentina followed suit (without ever admitting to its weapons program). Both countries joined the NPT in 1994.

- In recent years, Brazil has revived its enrichment efforts, purportedly to fuel its nascent nuclear submarine program for the Brazilian navy. Recently, Brazil announced plans to build six nuclear-powered submarines, with the first already under construction at the Itaguaí shipyard.⁴² Brazil has resisted transparency into its enrichment efforts, and took some years to agree on safeguards arrangements with the IAEA.
- Argentina maintains a limited enrichment capacity, and has not yet matched Brazil in its latest efforts. However, in 2009 Argentina announced plans to construct a fourth nuclear power plant and to revive uranium enrichment.
- Sizeable uranium deposits have not been reported in Latin America, but many regional states are engaged in uranium prospecting and small-scale mining. Venezuelan President Chavez announced that Iran would help Venezuela explore and process its unexplored uranium deposits.⁴³ According to press reports, Venezuela and Bolivia recently may have sold natural uranium to Iran. If so, the amounts likely were small.

Potential Biological Offensive Capabilities: The Latin American countries with the most mature bio-pharmaceutical industries are Cuba and Brazil.

- Accusations surfaced in 2001/2002 that Cuba maintained a biological weapons effort. However, no conclusive evidence has been found of such activity, and the Intelligence

⁴² Peter Millard, "Brazil Plans 6 Nuclear Submarines by 2047, Estado Reports," *Bloomberg News*, November 21, 2010.

⁴³ The International Institute for Strategic Studies, *Strategic Survey 2010: The Annual Review of World Affairs* (New York: Routledge, 2010) p. 16.

Community concludes only that Cuba has the technical capability to conduct limited offensive biological warfare research and development.

- Brazil is developing a mature pharmaceutical industry. According to a 2005 report for the World Health Organization:

“Brazil stands out on the world medicine market. Today, according to data from Intercontinental Medical Statistics, Brazil possesses 551 companies in the pharmaceutical area (laboratories, distributors and exporters) and holds 11th place in the ranking of the pharmaceutical world market. However, amongst the 12 biggest companies of the pharmaceutical industry, which combined represent around 45% of the Brazilian market, there is only one company, Aché, built with local capital. Between 70% and 80% of sales on the internal market are credited to multinational corporations (around 20 companies).”⁴⁴

Domestic Instability

The Latin American region has registered significant advances in recent decades in the establishment and successful operation of civilian democratic governments. Nevertheless, political instability remains a constant threat in many countries. That threat may take a number of forms: terrorism (whether inspired by ideology and/or the drug trade); accession to power and consolidation of radical governments (Bolivia, Venezuela and Cuba are the prime current examples); potential for government takeover by the military or radical elements; and the acute poverty that may provide fertile ground for any of the above developments.

The 2010 USSOUTHCOM Posture Statement states: “Perhaps the single factor contributing most to unrest, insecurity and instability in our region is the pervasive nature of poverty... Coupled with this poverty is a disparity in income levels that is ... the most unequal sub-region in the world.” This provides “fertile soil in which international criminals and terrorists can recruit, take root, and flourish, thus directly undermining state sovereignty, threatening public safety and contributing to rising instability.”

Domestic instability may also fuel severe regional tensions between states, as was the case between Argentina and Brazil when both were under military rule; and more recently between Colombia on the one hand and Venezuela and Bolivia on the other.

Perhaps even more often, domestic instability in Latin America provides fertile ground for hostility to the United States and ties between anti-US regimes inside and outside the region. The Cuba-Soviet Union connection is a striking example from the Cold War. More recently, concerns are growing about Iran’s ties with Venezuela, Bolivia, Cuba, Ecuador, and Nicaragua. The Israeli Foreign Ministry has reported “Since Ahmadinejad’s rise to power, Tehran has been promoting an aggressive policy aimed at bolstering its influence with Latin American countries

⁴⁴ Center for the Management of Intellectual Property in Health Research and Development, *Innovation in Developing Countries to Meet Health Needs*, WHO Ref. CIPH Study 10d (DGR), April 2005, pp. 82-83.

with the declared goal of ‘bringing America to its knees.’”⁴⁵ Over the past several years, Iran has opened embassies in Brazil, Bolivia, Chile, Colombia, Ecuador, Mexico, Nicaragua, and Uruguay.⁴⁶ Data from the International Monetary Fund show that Iran-Latin American trade tripled from 2007 to 2008. Iran’s largest trade partner in Latin America is Brazil. Also, Russia’s ties with several Latin American states have been characterized in an anti-U.S. context. Under then-President Putin, Russia tried to organize military alliances hostile to the United States with Venezuela and Ecuador. These alliances were intended to secure Russian air and naval bases in those countries, as well as in Bolivia.

Weak governments and inability to establish and enforce legal frameworks enable illegal traffickers to operate in areas in which a power vacuum exists. One particularly acute example is in Central America. Violence, corruption, and weak rule of law hampers counter-drug efforts in the Central American countries of El Salvador, Guatemala, and Honduras. This area, referred to as The Northern Triangle of Central America, has long been a major smuggling corridor for contraband heading into the United States. In addition, weak rule of law is the norm in areas of the Caribbean, which is comprised of numerous independent authorities and protectorates.

As noted, Central America is one of the weakest areas in the region for measures to control borders, fight illegal trafficking, and contribute to the counter-WMD mission. Lack of effective border control makes it relatively easy for terrorists to operate in the Latin American sub-region. For instance, the 2006 Border Control Agreement between El Salvador, Guatemala, Honduras, and Nicaragua allows individuals to pass across the borders of these states without going through checkpoints or border security. Despite these shortcomings, Latin American states have established local, cooperative organizations which could prove useful for CWMD education, training, and partnering:

- Central American states have established the Central American Integration System (SICA) to provide a framework for regional economic and security cooperation. However, limited resources, poverty, and corruption have been obstacles to effective security coordination, including implementation of UNSCR 1540. States Parties to the SICA are: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. Other states involved with the SICA as Associate States or regional observers include: Brazil, Chile, Dominican Republic, and Mexico. Extra regional observers include Germany, Spain and Taiwan. The SICA has its General Secretariat headquarters in El Salvador.
- The Central American Defense Council (CONDECA) is a cooperative joint command of U.S. and Central American forces (excluding Costa Rica, which had no armed forces) from the following republics: El Salvador, Guatemala, Honduras, and Nicaragua. Panama also has participated in CONDECA-sponsored exercises. CONDECA was

⁴⁵ Ariel Farrar-Wellman, “Argentina – Iran Foreign Relations,” July 31, 2010. <http://www.irantracker.org/foreign-relations/argentina-iran-foreign-relations>.

⁴⁶ Mark P. Sullivan, “Latin America: Terrorism Issues,” Congressional Research Service Report RS21049, October 26, 2010, p. 7.

designed to maximize contacts among the armed forces in Central America, in order to reduce political rivalries, to increase cooperation on all levels, and to reinforce a sense of common purpose.

Potential for WMD Terrorism

There is no direct evidence that Latin American terrorist groups seek WMD or are engaged in WMD proliferation. However, as discussed, they may be ripe for involvement in the proliferation trade, either directly or through money laundering. Further, as reported by the Library of Congress in 2002, Islamic terrorist groups that are actively pursuing nuclear and other WMD are extensively engaged in Latin America. That does not necessarily mean that they are using the region in any way to help achieve their WMD goals – other than through the profits from other illicit activity. However, the possibility must be taken seriously for several reasons.

- In March 2008, Colombian national police raided a FARC⁴⁷ training camp in the jungles of Ecuador. The raid is reported to have netted laptop computers belonging to senior FARC leaders. According to the Director of the Colombian National Police, the computers held evidence that FARC was negotiating to purchase 50 kilograms of uranium of unspecified enrichment. Later that month, Colombian authorities announced the discovery of a cache of 30 kilograms of depleted uranium in an area considered a FARC stronghold. Colombian authorities did not speculate on FARC objectives in seeking uranium.
- A report by the Federal Research Division of the Library of Congress states that “...extremist cells tied to Hezbollah, Islamic Jihad, and Al Qaeda are operating in Argentina, Ecuador, Honduras, Mexico, Nicaragua, Paraguay, Uruguay, and Venezuela. ...Islamic extremist support networks in South America are found in Colombia... Ecuador; Uruguay... the Triborder Region of Argentina, Brazil, and Paraguay; and Venezuela.... Moreover, in addition to the U.S. border with Mexico, the porous borders of the Caribbean may potentially provide a strategic haven for terrorists, given the links among drugs, arms, and money laundering.”⁴⁸
- In 2009, in testimony before the Senate Armed Services Committee, then-Commander of USSOUTHCOM, Admiral James Stavridis expressed “particular concern” over Hezbollah activity “... throughout South America, in particular ... as well as ... in the Caribbean Basin.” Subsequently, news reports have linked Hezbollah with drug traffickers in Mexico and stated that Hezbollah has provided its tunnel-building prowess in exchange for a share of the profits.⁴⁹

⁴⁷ FARC is an acronym for Fuerzas Armadas Revolucionarias de Colombia, the Revolutionary Armed Forces of Colombia.

⁴⁸ Federal Research Division, Library of Congress, *A Global Overview of Narcotics-Funded Terrorist and Other Extremist Groups*, May 2002, pp. 12-13.

⁴⁹ Paul Kujawsky, “Hezbollah Smuggling People into U.S. through Mexico,” *LA Middle Eastern Policy Examiner*, July 8, 2010.

Spread of Nuclear Energy

Argentina and Brazil lead the region in the number of current nuclear facilities, but they are not alone. The following Latin American facilities are under IAEA safeguards:⁵⁰

- Power reactors: Argentina (3); Brazil (3); Mexico (2)
- Research reactors: Argentina (6); Brazil (4); Chile (2); Colombia (1) Jamaica (1); Mexico (1); Peru (2); Venezuela (1)
 - Fueled by HEU: Mexico (1)
 - Converted from HEU: Argentina (2); Brazil (1); Chile (2)
- Conversion plants: Argentina (3); Brazil (2); Chile (1); Mexico (1)
- Fuel fabrication plants: Argentina (4); Brazil (1); Chile (1)
- Enrichment plants: Argentina (1); Brazil (4⁵¹)
- Separate storage facilities: Argentina (5); Brazil (2)
- Other facilities: Argentina (8); Brazil (7)

As noted, Argentina and, especially, Brazil are committed to maintaining and expanding their nuclear power programs. While neither shows any sign of reviving a nuclear weapons program, both retain the infrastructure and capacity to do so.

The leading nuclear power aspirant in the region is Venezuela, which has reached out in recent years to Russia, Iran, Argentina, and Brazil for help in reviving its research reactor and for developing nuclear power. Argentina and Brazil deny any intent to cooperate with Venezuela on this matter. Russia reportedly has agreed to help Venezuela develop a nuclear power plant. In September 2009 the two countries announced the creation of a bilateral atomic energy commission to assist Venezuela in developing a nuclear energy program.⁵² In October 2010, ITAR-Tass reported that Russian President Dmitry Medvedev and Venezuelan President Hugo Chavez met in Moscow and that Russia plans to build two 1,200 megawatt nuclear reactors in Venezuela. Statements by Medvedev following the announcement conveyed an anti-U.S. tone.⁵³ The prospect raises serious concerns.

⁵⁰ Not all facilities under safeguards are active; however, they remain under safeguards because they could be restarted. Most, but not all, Latin American research reactors have been converted from highly-enriched uranium (HEU) to low-enriched uranium (LEU).

⁵¹ Includes two laboratories and one pilot plant.

⁵² *Strategic Survey 2010*, p. 116.

⁵³ Vladimir Isachenkov, "Russia Agrees to Build Nuclear Plant in Venezuela," *Associated Press*, October 2010.

Biotechnology

As mentioned above, Cuba and Brazil boast the largest and most sophisticated biotechnology and medical industries in Latin America. Both Cuba and Brazil have scientists well-qualified in microbiology, virology, and biochemistry, and a full-range of modern facilities for research and development, large-scale production, down-stream processing, and product finishing. As with any advanced biological infrastructure, these facilities and expertise are inherently dual-use.

Cuba has provided technical expertise to China, Malaysia, India, and Iran and has helped them establish pharmaceutical factories. Cuba and Venezuela share a technology trade agreement and Venezuela has received pharmaceutical products from Cuba as payment for debt in the past. However, there is no evidence of Cuba transferring biological research, development or production capabilities to Venezuela or to any other state.

Numerous technological development agreements between Venezuela and Iran raise fears that Iran may share biological warfare information with Venezuela. Iran has extensive biotechnology capabilities and has been suspected of pursuing biological warfare programs.

Weak Action against Proliferation

No Latin American state is very active in international institutions to combat proliferation. Below is a brief summary of relevant international activities and Latin American participation:

- *PSI*. Only 10 of 31 states in the region participate in the PSI: Argentina, Bahamas, Belize, Chile, Colombia, El Salvador, Honduras, Panama, Paraguay, St. Vincent and Grenadines. Argentina is a member of the PSI Operational Experts Group, although reportedly not a very active one. Brazil and Mexico are conspicuous by their absence from PSI.
- *Ship Boarding Agreements*. On a more positive side, four regional states – Bahamas, Belize, Panama, St. Vincent and Grenadines – have also signed ship-boarding agreements with the United States that facilitate proliferation interdictions. The first three are especially important because they are major flag states.
- *GI*. Mexico participates in the GI. It is joined by only three other Latin American states: Argentina, Chile, and Panama.
- *Financial Action Task Force (FATF)*. Surprisingly, given Latin America's problems with drug trafficking, very few regional states – only Argentina, Brazil and Mexico – belong to the FATF, dedicated to combating money-laundering, terrorist finance (and by extension, proliferation finance). Those three, plus Bolivia, Chile, Colombia, Ecuador, Panama, Paraguay, Peru and Uruguay, belong to a regional affiliate, the Financial Action Task Force on Money Laundering in South America. In addition, an affiliate association of FATF exists for Central American states and for Caribbean states. These states typically possess few resources which can be dedicated to this activity.

- *Nuclear Security Summit.* Leading regional states – Argentina, Brazil, Chile and Mexico – participated in the April 2010 Nuclear Security Summit. At the meeting, Chile reported the removal in March of all HEU from the country, and Argentina joined the GI. Mexico committed to convert its HEU research reactor and remove all HEU from the country. Brazil made no new national commitments. Argentina also hosted the first post-Summit Sherpa meeting in November of 2010.
- *Nuclear Non-Proliferation Treaty.* The region’s record on international nonproliferation agreements is better, but still far from perfect. Without exception, all are NPT Parties, and have safeguards agreements with the IAEA. Many also have the IAEA Additional Protocol in place,⁵⁴ but leading states like Brazil (and therefore Argentina) refuse to adhere.
- *Treaty of Tlateloco.* This treaty, also known as The Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean, has been in force since 1969. All 33 states in Latin America and the Caribbean are parties to the treaty. The United States is not a member of this treaty, but has ratified both protocols to the treaty. Among other things, the treaty established an inter-government agency, the Agency for the Prohibition of Nuclear Weapons in Latin America (OPANAL), to supervise adherence to the treaty and convene special conferences related to obligations of the treaty. OPANAL appears to function primarily as an administrative body, however given the wide participation of countries in its activities, it might provide a forum for regional nuclear security and counterproliferation issues.
- *Biological and Toxin Weapons Convention.* All regional states are parties to the Biological and Toxin Weapons Convention (BWC), except for Guyana, Haiti and Trinidad and Tobago. Guyana and Haiti have signed, but not ratified, the convention; Trinidad and Tobago have not signed.
- *Megaports.* The Megaports Initiative is operational or in the implementation process at ports in the Bahamas, Honduras, Colombia, Dominican Republic, Jamaica, Mexico, and Panama.
- *Container Security Initiative (CSI).* The stated goal of the CSI is to protect the global trading system and the trade lanes between CSI ports and the United States. CSI uses a security regime to ensure that all containers that pose a potential risk for terrorism are identified and inspected at foreign ports before they are placed on a vessel bound for the United States. The Container Security Initiative has ten operational ports in Latin America.⁵⁵

⁵⁴ Latin American states with Additional Protocols: Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay.

⁵⁵ The operational CSI ports are: Santos, Brazil; Puerto Cortes, Honduras; Caucedo, Dominican Republic; Kingston, Jamaica; Freeport, The Bahamas; Balboa, Panama; Colon, Panama; Manzanillo, Panama; Cartagena, Colombia; and Buenos Aires, Argentina.

- *The Inter-American Committee against Terrorism (CICTE)*, an agency of the Organization of American States (OAS), was created in 1999. CICTE advises the 15 OAS member states on ways to meet obligations under UNSCR 1373 (denying support for terrorists). It provides a database of examples of national legislation of member states regarding terrorism, legislative examples from other nations of the world, and draft legislation from related international organizations. The database also contains examples of regional and multi-national treaties and conventions related to terrorism, information on training courses, and academic research. CICTE has provided some aid for counterterrorism and capacity-building assistance in the region and has trained over 500 port security employees from 29 states.⁵⁶
- *APEC Counter Terrorism Action Plans*. Several Latin American states are active member of APEC. APEC has established a Counter Terrorism Task Force and tasked member states to develop Counter Terrorism Action Plans (CTAPs). In Latin America, Chile, Mexico, and Peru have each developed and submitted a CTAP.

Relevant U.S. Initiatives for Latin America

Department of State. The State Department has several sub-regional initiatives to help counter illicit trafficking and associated activities in the region. These include:

- *Merida and Beyond Merida*. In 2008 President Bush and Mexican President Calderón launched the Mérida Initiative. This three year program provides about \$1.3 billion dollars in security aid to Mexico to fund the purchase of military equipment and technology, as well as to provide training and other support for domestic law enforcement and judicial reforms, and to strengthen accountability and oversight within government agencies. The next phase is intended to focus on further judicial reform and local security reforms and to increase efforts to counter drug trafficking. Of the \$346 Million requested for FY2011, less than \$6 Million is directed to nonproliferation and antiterrorism efforts.
- *The Central American Regional Security Initiative (CARSI)*. This effort focuses on law enforcement and security force assistance to confront narcotics and arms trafficking, gangs, organized crime, border security deficiencies, as well as to disrupt criminal infrastructure, such as money laundering and trafficking routes and networks. It also assists with capacity enhancements for public security, law enforcement and the justice sector.

⁵⁶ Nuclear Threat Initiative, *The Americas – 1540-Related Regional Activities*, <http://www.nti.org/db/1540/index.html>, updated April 2010.

- *The Caribbean Basin Security Initiative (CBSI)*. A relatively new initiative, \$37 million was appropriated for FY 2010 to combat drug trafficking and organized crime, strengthen the rule of law, and promote social justice. The Obama Administration's FY 2011 request for CBSI is \$79 million.

USSOUTHCOM. A variety of military exercises are conducted routinely with other armed forces in the region. These include:

- Fuerzas Aliadas PANAMAX is an annual exercise involving air, land, and sea forces to assist Panama to secure the Panama Canal and combat traditional and non-traditional threats. PANAMAX typically includes a PSI-related scenario.
- UNITAS is a military exercise that involves Western Hemisphere naval forces in joint training and operations.
- TRADEWINDS is an annual exercise involving Caribbean Basin nations intended to strengthen skills for maritime interdiction and search and rescue.
- Fuerzas Comando is a counterterrorism exercise. In 2009 the exercise involved 21 partner nations and was conducted in Brazil. In 2010, the exercise was a military skills competition involving military police and special operations teams from 19 countries.

The Joint Interagency Task Force-South (JIATF-South). This interagency coordination cell is organized by SOUTHCOM and is intended to facilitate regional engagement through international and interagency coordination, primarily to detect and monitor illicit trafficking. JIATF-South is located in Key West, Florida.

- According to SOUTHCOM, "JIATF-South exists to spearhead the effort to fight illicit trafficking – with an acknowledged potential nexus with narco-terrorism."
- This interagency task force is staffed by about 550 people, is led by a U.S. Coast Guard Rear Admiral, a vice director from the Customs and Border Patrol Agency, and includes personnel from all branches of the U.S. military. It also includes an interagency team from 14 different agencies and representatives from 13 partner nations.⁵⁷
- The JIATF model provides intelligence fusion and dissemination among U.S. agencies and partner nations.

The Joint Interagency Task Force-North (JIATF-North). An interagency coordination cell is also being established in El Paso, Texas. When fully functional, JIATF-North will provide a similar intelligence fusion role for the NORTHCOM area of responsibility, including Mexico, Canada, and the continental United States.

⁵⁷ Partner nation representatives are: Argentina, Brazil, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, France, Mexico, Peru, Netherlands, Spain, and the United Kingdom.

Finally, it should be noted that Latin America states have recently created regional power blocs that explicitly exclude the United States. For example, the Union of South American Nations (UNASUR) is led by Brazil, the Bolivarian Alliance for the Americas (ALBA) is led by Venezuela, and, in February 2010, the leaders of all Latin American states announced the creation of a new, as yet unnamed regional organization that would expressly exclude the United States and Canada.⁵⁸

⁵⁸ *Strategic Survey 2010*, p. 100.

II. KEY REGIONAL COUNTERPROLIFERATION CHALLENGES AND TASKS

Key Challenges

No confirmed WMD programs exist in Latin America. However, established infrastructure for civil nuclear and biological capabilities, anti-US sentiment in some states, collaboration between Latin American states and WMD-capable states outside the region, and countries struggling with poverty and corruption could combine to pose significant challenges in the future. These challenges include:

Preventing a Proliferation Cascade: The long-standing Latin American threat of horizontal nuclear proliferation has primarily been that posed by Brazil and Argentina. In recent years, the tension has eased, but still persists. Thus, for example, while Argentina has been willing to join PSI and the GI, despite Brazil's absence, it will not adhere to the IAEA Additional Protocol unless Brazil does so. Argentina is also reviving its dormant nuclear enrichment activities in response to Brazil's enrichment progress.

Only a few other regional states would be capable of developing and maintaining a nuclear weapons program. One may be Chile, which could be compelled to revive nuclear efforts if Argentina and Brazil develop nuclear weapons.

A future Venezuelan nuclear program, especially with Iranian connections and transparency concerns, would be a major source of regional instability and could motivate Argentina and Brazil to acquire nuclear weapons. Currently, Venezuela almost certainly lacks the indigenous capability for such an effort, but its ties to Russia and Iran – and Iran's potential interest in undermining the U.S. "backyard" – are grounds for serious concern.

Ensuring Security for Nuclear and Biopharmaceutical Programs in the Region: Security for growing nuclear power and biopharmaceutical industries in Latin America should not be taken for granted. Brazil is expanding its civil nuclear program, has an active uranium enrichment program, and is reportedly developing nuclear propulsion for its submarines. Brazil's traditional rival, Argentina, also is expanding its nuclear energy infrastructure. Argentina's recent financial crisis should compel the United States to inquire whether temporary assistance is needed for nuclear security in Argentina. The United States should also seek assurances from Russia on security measures for the nuclear reactors it plans to construct in Venezuela.

On the biotechnology front, a number of U.S. observers have questioned whether regulations in Cuba and Brazil are adequate to ensure security for biological agents.

Dealing with Countries Struggling with Domestic Instability and Poverty: Poverty, government corruption and mismanagement, and networks engaged in illegal trafficking have, in the past, both found such environments to be places where they can operate freely and contributed to instability in the region. Several Central American states currently experience high rates of poverty and weak rule of law. Other countries with potential for large-scale domestic instability include Venezuela, Bolivia, and Cuba.

Preventing WMD Terrorism Imported to Latin America from Other Regions: WMD terrorism originating from Latin America is not assessed to be a significant threat. However, well funded terrorist organizations – those based in Latin America as well as those outside the region – may be motivated to attempt a terrorist attack in the United States and may try to exploit illegal trafficking networks in Latin America for this purpose.

Concern over WMD terrorism threats originating from Latin America is heightened by ties between Iran and states in the region including Venezuela, Bolivia, and Nicaragua. In addition, several Islamic extremist organizations are active in the region. For example, the rugged tri-border area of Argentina, Brazil, and Paraguay is an established haven for smugglers and money laundering. Hezbollah and Hamas sympathizers inhabit this area and participate in illegal trafficking to raise funds. In 2002, the United States partnered with these states to form the “3+1 Group on Tri-Border Area Security.” Despite this initial effort, this tri-border area remains a trouble spot.

Overcoming Weak Action on Counterproliferation: Most countries in Latin America do not view WMD proliferation or terrorism as high priority issues. In addition, numerous U.S. initiatives to combat WMD and relationships with multiple government agencies can be confusing for some countries. U.S. efforts to enlist partner-nation support are often seen as self-serving. As a result, most states have not been active participants in US-led initiatives to combat WMD proliferation. As noted, only ten countries in Latin America have endorsed the PSI Statement of Principles. Even fewer, four, have joined the GI.

Limited resources, poverty, and corruption in numerous states in Latin America, in particular those in Central America, pose obstacles to effective counter-WMD actions and coordination, including implementation of UNSCR 1540.

Deterring Indigenous Development and Use of Latin America as a Transshipment Location for WMD: Formal state-to-state relations between non-Latin American, WMD-capable states and countries in the region pose the potential for WMD development in Latin America to be aided by others outside the region or for WMD to be provided directly to Latin American states. Of most concern are Iran's ties with Venezuela, Bolivia, Cuba, and to a lesser extent, Argentina.

Ties between state sponsors of terrorism and Islamic extremist groups outside the region with non-state entities in Latin America pose a potential source of WMD capabilities that could be introduced into Latin America. Cells of Islamic extremists exist in Argentina, Ecuador, Honduras, Mexico, Nicaragua, Panama, Paraguay, Uruguay, and Venezuela. In addition, other extremist groups, such as the Revolutionary Armed Forces of Colombia (FARC) and Sendero Luminoso (Shining Path) in Peru, warrant close scrutiny.

Securing Regional Transit Routes: Illegal trafficking cartels appear able to successfully evade detection much of the time as they transport illegal cargo into the United States, and worldwide via several routes (including through West Africa). These cartels have demonstrated an ability to develop crude, but innovative, ways to evade detection to include semi-submersible ships and tunnels under the US-Mexican border. In July 2010 police in Ecuador seized a 100-foot fully

submersible, fiberglass submarine being built in mangrove swamps near Ecuador's border with Colombia.⁵⁹ In addition, the network of air- and sea-borne transit routes for business and vacation travelers provides a variety of modes and entry points for those who might try to smuggle WMD into the country.

Working with States with a High Level of Poverty: Countries struggling with high poverty rates, organized criminal networks, and ineffective governance pose a challenge for combating WMD (CWMD) efforts. Central governments in such countries will be unable to dedicate significant resources or attention to this mission. Moreover, in some cases, even working with Americans toward this end may not be popular with its citizens.

Overcoming Obstacles to Counterproliferation Cooperation in Latin America: Two factors which are often mentioned as obstacles to building counterproliferation capacity in Latin America are lack of interest in the CWMD mission and anti-American sentiment.

- Overcoming a lack of interest in the CWMD mission will necessitate understanding priorities of each state and making capacity-building efforts relevant to those priorities.
- Overcoming reluctance to be seen as closely tied to the United States may require regional leaders willing to step forward and/or for countries outside the region to work with Latin American states on this issue. Potential regional leaders include Argentina, Brazil, and Mexico. The most often mentioned non-U.S. influential countries from outside the region are France and Canada.

Strengthening Regional Counterproliferation Capabilities: Priority for strengthening existing relationships and establishing new regional counterproliferation capacities should be directed at Latin American states with potentially constructive relations with the United States (e.g., Mexico and Argentina), and should consider including states with existing counter-illicit trafficking efforts (e.g., Colombia), states with a strategically important geographic location (e.g., Panama), and states with resources and technology for the CWMD mission (e.g., Brazil).

A variety of established security-related programs exist with countries in the region. Some of these programs could provide a ready foundation for further regional capacity-building. These programs include: PSI, GI, FATF, container-screening, and ship-boarding agreements.

Identified priority states for building counterproliferation capabilities include the following: Argentina, Brazil, Chile, Colombia, Mexico, Panama, and Peru.

Key Tasks

The following provides brief observations on counterproliferation tasks as viewed from a regional perspective for the priority countries.

⁵⁹ Chris Kraul, "Ecuador Police Seize 100-Foot Narco-Submarine Being Built Secretly," <http://www.latimes.com>, July 6, 2010.

Threat Awareness and Information-Sharing: The key issues identified above provide the focus for threat awareness and information-sharing objectives. Security officials in the United States and in priority states will need to focus initially on the following:

- Indigenous nuclear power programs with the potential for nuclear weapons applications. Brazil and Argentina should be of most interest. Mexico and Chile also possess capabilities of interest.
- The robust biopharmaceutical industry in Cuba has, at times, been suspected of supporting a potential BW capability.
- Relations between Latin American states and non-state extremist groups with state supporters of terrorism, particularly Iran.

National Legal Frameworks: For the Latin American region, relevant legal frameworks are weak. For states with sufficient resources, more emphasis by the United States could focus on implementation of UNSCR 1540 and establishment and enforcement of border security. For relatively poor states, such as those in Central America and the Caribbean, other approaches may be needed. For example, a State Department coordinator has been assigned as the UNSCR 1540 Regional Implementation Coordinator for the Caribbean. This person works with individual authorities to develop legal frameworks for each country and to identify capabilities needed for implementation. Effective enforcement of other UN resolutions will also be important. For example, UNSCR 1929 imposes sanctions on Iran.

Access Denial: Denial tasks are those that make obtaining WMD materials more difficult, costly, and risky to would-be terrorists and smugglers. Denial-related tasks internal to each state involve strengthening accounting and security of nuclear energy materials and potentially dangerous biological agents.

Detection: Should access denial fail to prevent threat sources from obtaining WMD-related materials, detection of suspicious activities will be important to investigate. Detection involves import-export procedures, border-security, and local law enforcement capabilities to detect and locate suspected WMD-related activities. For the Latin American region, maritime surveillance is an extremely important component of detection.

In addition to capabilities for detection within each country, regional partnerships need to address surveillance, coordination, communication, and authorities for areas that encompass the territory of multiple states and include international water and airspace. Joint exercises will be important to expose areas that require further attention (e.g., communications equipment, division of responsibility). Regional surveillance centers that track and analyze land, air, and sea traffic would be valuable in identifying unusual patterns of activity, reconstructing the route travelled by suspect vehicles, and discouraging attempts to circumvent official entry and exit locations.

For Latin America, security and surveillance of the land border between the United States and Mexico, of the sea-borne lanes in the vicinity of the Isthmus of Panama, and of air traffic

entering U.S. airspace from Latin America are among the key detection-related tasks. Domestic laws should not impede the ability of each country to detect and disrupt WMD-related efforts by internal, non-state groups.

Interdiction: Interdiction may involve the coordination or action of more than one country to intercept and inspect targets. As with joint operations for denial tasks, exercises that help identify shortcomings will be valuable. In Latin America, counter-narcotics teams could be trained to properly handle suspected WMD if found during drug interdiction missions. If WMD smuggling is suspected or confirmed, specially-trained teams should be ready to respond to safely seize and transport suspected WMD to locations where it can be evaluated and neutralized. For Latin America, the high density of sea-borne traffic to and from the United States requires that this interdiction response force be capable of covering an extensive overwater area.

Consequence Management: Mitigation of consequences from a WMD attack is probably a lower priority, at this time, than prevention, denial and interdiction. However, educating priority states on the potential consequences could help in motivating them to provide resources for the counter-WMD mission.

III. NATIONAL ASSESSMENTS

For Latin America, priority states discussed below have, to varying degrees, relatively stable governments, an expectation of cooperation with the United States, and access to modern technology. In addition, the geographic locations of some countries make them particularly valuable counterproliferation players.

Argentina

As noted, Argentina is one of only three countries in the region that is a member of both the PSI and GI. Unlike its neighbor, Brazil, Argentina has been supportive of efforts to discourage Iran from developing nuclear weapons. The recent partnership between Brazil and Argentina to become exporters of nuclear fuel and technology heightens the importance of working closely with Argentina.

- Threat Awareness
 - Although Argentina is a member of the PSI Operational Experts Group, it reportedly is not a very active member. While some have suggested easing Argentina out of this role, its leaders might be encouraged to become more active and serve as a counter-WMD leader in the region.
 - Argentina has displayed leadership potential by hosting regional seminars to assist Central American and Caribbean countries in drafting reports and legislation for 1540 reports.
 - As noted, it has not signed the IAEA Additional Protocol.
- Information Sharing
 - Argentina and Brazil have established an agency⁶⁰ for accounting, control, and verifying the two countries' nuclear materials and installations.
 - Argentina actively participates in the 3+1 Group (Argentina, Brazil, Paraguay, and the United States) which coordinates surveillance of the "tri-border area" and cooperation on UNSCR 1540.
 - Argentina is a member of the Inter-American Committee against Terrorism (CICTE).
- National Legal Frameworks
 - In its initial and subsequent reports on implementation of UNSCR 1540, Argentina cites its numerous laws, regulations (dealing with nuclear materials), and agencies that comply with criminalizing WMD smuggling and terrorism. In the same document, Argentina asked for "the United Nations to provide assistance in the preparation of legal instruments for the enactment and effective implementation of resolution 1540."

⁶⁰ The Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials.

- Access Denial
 - Argentina has several agencies (e.g., Nuclear Regulatory Agency, National Atomic Energy Agency) with responsibility for handling and security of nuclear materials and, reportedly, with responsibility “in the area of chemical and biological substances.”⁶¹
 - In November 2010, Argentina hosted the first Sous-Sherpa meeting following the U.S.-led Nuclear Security Summit of April 2010.
- Detection
 - Argentina reports that the Argentine National Gendarmerie is active at 105 legal border crossings “to prevent illicit trade in nuclear, chemical and biological materials and/or weapons and their delivery systems ...”⁶²
 - One port in Argentina (Buenos Aires) participates in the Container Security Initiative. Of note, Argentina was the first country in South America to sign a CSI agreement with the United States.
 - As a country with nuclear power reactors and in the past, ambitions of a nuclear weapon program, Argentina may possess technical expertise associated with nuclear materials that could be applied to radiological detection.
 - Argentina is a member of FATF. However, the most recent evaluation of Argentina’s measures to detect money laundering and to combat the financing of terrorism found a number of deficiencies. The report cited a “lack of effectiveness” of Argentina’s legal and preventative measures.⁶³
- Interdiction
 - Argentine Federal Police have personnel trained to work with Interpol, and special units as the Special Hazards Brigade of the Security Forces, to intercept suspected smugglers.
- Consequence Management
 - Argentina’s nuclear technology expertise and specially-trained units, such as the Environmental Emergency and Radiological Security Section of its fire fighting organization, provide some consequence management capability for nuclear and radiological emergencies.

Brazil

Brazil is the economic powerhouse of Latin America and has sought to further its influence in the region and beyond. Brazil’s economy generates the largest gross domestic product in Latin America and the tenth largest in the world. It has secured a seat in the G-20, formed a coalition

⁶¹ Argentina’s Initial Report to the UN on Compliance with UNSCR 1540.

⁶² Ibid.

⁶³ “Anti-Money Laundering and Combating the Financing of Terrorism: Argentina,” Report of the Financial Action Task Force, October 22, 2010.

with other rising economies (Russia, India, and China), and has long aspired to join the ranks of the UN Security Council as a permanent member. Brazil's active role in the creation of UNASUR (Union of South American Nations) and its proposal to create a South American Defense Council, a sort of NATO for the region, are indicative of its bid for regional leadership. Brazil has a mature nuclear power industry and, with properly motivated leaders, Brazil could serve a more constructive regional role in countering WMD. The recent partnership between Brazil and Argentina to become exporters of nuclear fuel and technology heightens the importance of working closely with Brazil as it expands its nuclear infrastructure and marketing.

- Threat Awareness
 - Brazil is a member of neither the PSI nor the GI.
 - The State Department reports that the United States has provided a variety of training courses throughout Brazil in counterterrorism, combating money laundering, container security, and related topics.
 - Brazil's refusal to accept the IAEA Additional Protocol indicates that there is room for improvement. During the 2010 NPT Review Conference, the representative of Brazil reaffirmed his country's opposition and explained Brazil's position and history of opposing further nuclear safeguards.

- Information Sharing
 - Brazil reportedly has an intelligence-sharing agreement with Peru for joint patrolling of border riverways.⁶⁴
 - Argentina and Brazil have established an agency⁶⁵ for accounting and verifying the two countries' nuclear materials and installations.
 - Brazil actively participates in the 3+1 Group.⁶⁶

- National Legal Frameworks
 - The Department of State cites Brazil's failure to strengthen its legal counterterrorism framework as significantly undermining its overall commitment to combating terrorism and illicit activities that could facilitate terrorism.⁶⁷ Of specific concern is the delay of an anti-money laundering bill which could give law enforcement officials greater access to financial records.
 - Like Argentina, Brazil has offered to assist other states to implement provisions of UNSCR 1540.

- Access Denial
 - One port in Brazil (Santos) participates in the CSI.

⁶⁴ *Country Reports on Terrorism 2008*, United States Department of State Publication, Office of the Coordinator for Counterterrorism, April 2009, p. 159.

⁶⁵ The Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials.

⁶⁶ Argentina's Initial Report on UNSCR 1540.

⁶⁷ *Country Reports on Terrorism 2008*, p. 160.

- Detection
 - Brazil is a member of the FATF. It reportedly continues to take steps to enhance its capabilities to combat money laundering.
 - As a country with nuclear power reactors, nuclear fuel reprocessing capabilities, and in the past, ambitions of a nuclear weapon program, Brazil possesses mature technical expertise associated with nuclear materials.
- Interdiction
 - The Brazilian military hosted Fuerzas Comando 2009 with Special Operations Command South serving as the lead U.S. military organization for coordination of the USSOUTHCOM-sponsored exercise. More than 300 military, law enforcement and civilian personnel from the 22 participating nations took part in the exercise. This type of exercise has potential for counterproliferation applications.
- Consequence Management
 - Brazil's nuclear technology expertise provides some consequence management capability for nuclear /radiological emergencies.
 - In addition, its extensive bio-pharmaceutical industry should be capable of responding to pandemics and biological emergencies.

Chile

Chile is one of three countries in the region that is a member of both the PSI and GI. Chile occupies a long, strategically important coastline in southwestern South America and has been an active participant in U.S.-led military exercises. Reportedly, Chile has been very helpful diplomatically, including at the Nuclear Security Summit. Chile's recent decision to eliminate all HEU from the country indicates a constructive contribution toward nuclear security issues. Chile is a member of APEC and has a recently updated Counter Terrorism Action Plan.

- Threat Awareness
 - Chile is a member of both the PSI and GI.
 - Chile has signed and implemented the IAEA Additional Protocol.
- Information Sharing
 - Chile reportedly works cooperatively with U.S. officials to share information on and monitor extremist groups in Chile, such as a violent Mapuche Indian Group in southern Chile.
- Access Denial
 - The Chilean Nuclear Energy Commission, in cooperation with the IAEA, establishes controls on radiological materials.
- National Legal Frameworks
 - Chile's initial report on 1540 implementation appears to indicate that significant work is needed on establishing legal frameworks. Subsequent reports indicate that it has

some procedures for monitoring foreign trade operations and legal authority to seize illegal cargos.

- Detection
 - The 1540 report did not list any special detection capabilities.
 - Chile is a member of the South American Financial Action Task Force.
- Interdiction
 - Chile maintains a 300-person counterterrorism reaction force. Elements of this force participate annually in USSOUTHCOM Exercise Fuerzas Comando.
 - During the multinational exercise, Fuerzas Aliadas PANAMAX, in 2009, the Chilean frigate CNS Almirante Cochrane (FF 05) conducted a PSI boarding exercise.
- Consequence Management
 - The 1540 report did not list any consequence management capabilities.

Colombia

Colombia has been a stalwart partner of the United States in fighting drug cartels and terrorist groups such as the FARC. Its geographic location and proximity to Panama would help make Colombia an important participant in the counter-WMD mission on land, in the Caribbean, and in the Pacific. In addition, Colombia in partnership with others may be able to help contain and control illegal trafficking in and through poorer Central American states to its north as well as in its South American neighbors. The potential to build on existing U.S.-Colombia security cooperation initiatives for counter-WMD seems opportune. The State Department describes the Government of Colombia's counterterrorism efforts as "vigorous."⁶⁸

- Threat Awareness
 - Colombia is a member of the PSI, but has not joined the GI.
- Information Sharing
 - Colombia works closely with the United States on information sharing to combat non-state groups operating in or near Colombia.
- National Legal Frameworks
 - Colombia's laws permit the extradition of criminals to the United States. In 2008, 208 defendants were extradited to the United States for prosecution.
- Access Denial
 - No special capabilities noted.

⁶⁸ *Country Reports on Terrorism 2008*, p. 164.

- Detection
 - In its UNSCR 1540 report , Colombia stated that it “... requires international assistance in improving skills transfer and training, and also needs physical equipment enabling it to respond appropriately to the challenge of detecting, monitoring, and prosecuting non-State actors who possess radioactive materials or weapons of mass destruction.”⁶⁹
 - The CSI includes the port in Cartagena, Colombia.
 - Colombia is a member of the South American Financial Action Task Force.
- Interdiction
 - Under the Uribe administration (2002-2010), Colombia has been successful in locating and combating FARC members. Colombia has provided counterterrorism training to others in the region, including Mexico.
 - The Colombian National Police reportedly have approximately 2,000 personnel manning borders with Colombia’s five neighbors. Approximately half are on the border with Venezuela.
- Consequence Management
 - No special capabilities noted.

Mexico

The United States and Mexico have security cooperation initiatives underway to fight drug trafficking, reform Mexico’s judicial system, and improve border security. Mexico has joined the GI, but is not a member of the PSI. Given its geographic importance on the southern border of the U.S., it is important to continue to build Mexico’s capabilities to counter-WMD. Mexico’s economy has the second largest (second only to Brazil) gross domestic product (GDP) in Latin America and the twelfth largest in the world. In addition, Mexico may be able to help contain and control illegal trafficking in and through poorer Central American states to its south. Mexico is a member of APEC and has a recently updated Counter Terrorism Action Plan. OSD Policy reports that NORTHCOM has preliminary plans for working with Mexico on NORTHCOM plans for combating WMD.

- Threat Awareness
 - NORTHCOM reports that it is working with Mexico to establish a “comprehensive homeland and hemispheric defense architecture.”
 - Mexico has joined the GI, but is not a member of the PSI.
- Information Sharing
 - Mexico provides law enforcement representatives to JIATF-South.

⁶⁹ Report by Colombia to United Nations Security Council Committee on resolution 1540, 23 February 2005. Posted on <http://pfcmc.com/sc/1540/nationalreports.shtml>.

- National Legal Frameworks
 - Mexico’s initial report on 1540 indicated the need for assistance in a number of areas, such as access to justice, extradition, illegal arms trafficking, police services, and drafting legislation.
- Access Denial
 - No special capabilities noted.
- Detection
 - Mexico participates in the Megaports Initiative.
 - Mexico is a member of the South American FATF.
- Interdiction
 - One element of the Merida Initiative with Mexico and Central America includes funding for land and maritime interdiction and interception assistance. In addition, DoD funds counternarcotics and counterterrorism training and supplies communications equipment for Mexico for the counternarcotics mission.
- Consequence Management
 - DTRA has conducted training with Mexican authorities on consequence management from terrorism resulting from improvised explosive devices (IEDs).

Panama

Panama’s role as a participant in counterproliferation is important for several reasons: the large volume of cargo transiting the Panama Canal; its central location along trafficking routes; its importance as a flag registry state; its active support for PSI; and its ship-boarding agreement with the United States. In addition, Panama may be able to help contain and control illegal trafficking in and through poorer Central American states on its northern border. Panama is also a signatory to the Central American Integration System (SICA).

- Threat Awareness
 - Panama is a member of the PSI and GI.
 - Fuerzas Aliadas PANAMAX, an annual exercise organized by SOUTHCOM since 2003, is designed to defend the Panama Canal against transnational threats. The exercise brings together countries who have agreed to support the safety and security of the canal against threats which include terrorist attack. The exercise conducted in the fall of 2009 involved over 4,500 participants from 20 countries. According to the SOUTHCOM description, the exercise provides “a venue to Proliferation Security Initiative endorsing countries to execute PSI.”
- Information Sharing
 - Panama’s strategic location makes it a potentially valuable interlocutor for information sharing on traffic transiting the canal and local area.
 - A new legal framework has been established for Panama’s intelligence service, now called the National Intelligence and Security Service. In addition, it formed a new

independent security service called the National Frontier Service. Legal reforms made it possible for both to be led by uniformed officers.⁷⁰

- National Legal Frameworks
 - No special requests were noted in Panama's 1540 report to the UN.
- Access Denial
 - Three ports in Panama participate in the CSI: Balboa, Colon, and Manzanillo.
- Detection
 - Panama participates in the Megaports Initiative and the Trans-shipment Country Export Control Initiative (TECI) which governs a system of controls on dual-use materials.
 - Panama is an international offshore banking center and a member of the South American Financial Task Force, but not a member of the full FATF. The State Department Country Reports on Terrorism states, "...the government has taken extensive measures to combat money laundering in the banking system..."⁷¹
 - The Panama Canal provides a geographic choke point for ship traffic transiting the canal. As such, Panama has adopted a number of international measures such as the International Code for the Security of Ships and Port Facilities which deals with port protection, new requirements for the issuance of shipping licenses, and development of merchant marine data bases.
- Interdiction
 - Panama has no army; it has police services to enforce its laws.
 - Panama's counterterrorism units in the police and frontier forces have benefited from training funded by USSOUTHCOM and conducted by SOCOM South.
 - Panama's initial report on 1540 states that it has a number of "inter-institutional contingency plans ... to deal with situations involving the use of weapons of mass destruction or terrorist acts." This appears to be a work in progress.
- Consequence Management
 - Panama participated in the 2009 multilateral exercise, PANAMAX, which included the simulated response to a pandemic in the Panama Canal region. The event has potential training applications for responding to a biological weapon or toxin incident.

Peru

Peru occupies a strategically important location on South America's west coast. Peru shares a border with a U.S. ally, Colombia, and with the institutionally weak country of Ecuador. The primary counterterrorism concern of the Government of Peru is fighting remnants of the militant group, Shining Path, and elements of FARC that seek refuge along its northern border with

⁷⁰ *Country Reports on Terrorism 2008*, p. 174.

⁷¹ *Country Reports on Terrorism 2008*, p. 175.

Ecuador. Helping Peru build capabilities to counter-WMD could help provide a stabilizing influence in western South America. At present, Peru belongs to neither the PSI nor the GI. Peru is a member of APEC and has a recently updated Counter Terrorism Action Plan.

- Threat Awareness
 - Peru is not a member of either PSI or the GI or other counterproliferation efforts that could provide an avenue for building threat awareness.
 - Peru has signed and implemented the IAEA Additional Protocol.
- Information Sharing
 - Peru reportedly has an intelligence-sharing agreement with Brazil to facilitate joint patrolling of river borders.⁷²
- National Legal Frameworks
 - Peru's initial report on 1540 implementation and its "additional report" indicate that some umbrella legislation is in place but the reports provide little evidence of more detailed legal frameworks.
 - Peru's 1540 report is more detailed than that for most Latin American states on its laws regulating biotechnology.
- Access Denial
 - Peru's Nuclear Energy Institute (IPEN) was founded in 1975 and is Peru's center for research and development related to nuclear reactors and radioisotopes for medical use. IPEN and the national government appear to have put in place regulations pertaining to the safety, security, and handling of nuclear/radiological materials.⁷³
 - Peru's 1540 report indicates awareness of and achievement in advances in the handling and transport of biotechnology materials.
- Detection
 - No special capabilities noted.
 - Peru is a member of the South American Financial Action Task Force.
- Interdiction
 - No special capabilities noted.
- Consequence Management
 - No special capabilities noted.

Table F briefly summarizes the survey of capabilities of identified priority countries.

⁷² *Country Reports on Terrorism 2008*, p. 159.

⁷³ Peru's "Additional Report" on 1540 implementation.

TABLE F
LATIN AMERICAN COUNTERPROLIFERATION
COUNTRY SUMMARY

	Threat Awareness	Info Sharing	National Legal Frames	Access Denial	Detection	Interdiction	Consequence Management
Argentina	PSI, OEG member. GI, hosted regional seminars. NSS, hosted Sherpa meeting.	Argentine-Brazil Agency for Nuclear Materials. 3+1 Group for Triborder area control. CICTE member.	Requested 1540 compliance assistance.	Several regulatory agencies operate.	Megaports, CSI, EXBS, FATF. Natl Gendarme at border crossings. Nuclear detection technology.	Federal police work with Interpol and Special Hazards Brigade.	Specially trained units for nuclear-radiological emergencies.
Brazil	NSS, Training for domestic authorities.	Argentine-Brazil Agency for Nuclear Materials. Intel sharing with Peru on river borders. 3+1 Group for Triborder area control.	Offered to assist other states on 1540. State Dept cites failure to strengthen legal frameworks for CT.		CSI, EXBS, FATF. Nuclear detection technology.	Hosted SOUTHCOM Fuerzas Commando 2009.	Extensive technical capabilities for nuclear-radiological emergencies and response to bio-pandemic.
Chile	PSI, GI, APEC CT Action Plan, IAEA AP, NSS.	Coop with US to monitor extremist groups.	Significant work needed to comply with 1540.		EXBS; FATF Assoc. Member.	300-person CT reaction force. Participated in PANAMAX 2009 shipboarding exercise.	

Colombia	PSI, Partner with US to counter subnational groups.	Shares info with US on non-state threats.	Law permits extradition of criminals to US. Requests assistance on 1540 and improved capabilities.		Megaports, CSI; FATF Assoc. Member.	Special teams to combat FARC. Provides CT training to others.	
Mexico	GI, APEC CT Action Plan, NSS.	Works with NORTH-COM, others.	Requests assistance on 1540 legislation.		Megaports, EXBS, FATF.	Merida funds some land and maritime interdiction capability.	DTRA conducted IED-related consequence management training.
Panama	PSI, GI, Panamax.	Internal info sharing. Member of Central American Integration System.			Megaports, CSI. Transshipment Country Export Initiative; FATF Assoc. Member.	Ship boarding agreement with US. Trained police and frontier units. Some inter-institutional contingency plans.	Panamax 2009 featured response to pandemic.
Peru	APEC CT Action Plan, IAEA AP.	Intel sharing with Brazil on river borders.	Some laws in place on biotech/safety Needs assistance.	Nuclear Energy Institute regulates nuclear handling.	FATF Assoc. Member.		

Latin American Issues

In his March 2010 posture statement, SOUTHCOM Commander, General Douglas Fraser said, “As a threat to our homeland and the long-term stability of the region, illicit trafficking is of critical concern as it provides a possible nexus for transnational terrorism and the potential proliferation of WMD.”

This survey of potential WMD proliferation threats associated with Latin America underscores General Fraser’s concern. The following observations and issues address the potential to help priority states combat WMD in the region.

- *Need for greater WMD threat awareness throughout the region.* Latin American has received scant attention from U.S. counterproliferation efforts. This is reflected in the low level of participation by Latin American states in U.S.-led counterproliferation initiatives. This may have been appropriate in the past, but the threat of WMD-related terrorism seems to warrant greater attention to Latin America and its networks for illegal trafficking into the United States.
- *Overcoming obstacles to anti-U.S. sentiments.* Building counterproliferation capacities in Latin America is complicated by several factors:
 - Anti-U.S. coalitions led by Venezuela, Bolivia, and Cuba and supported by countries from outside the region, such as Iran and Russia;
 - A general attitude in the region that values independence from U.S. influence. This leads some countries to be reluctant to work closely with the United States; and
 - Prevailing views among many countries that WMD proliferation and terrorism is not a priority for them; it is primarily a U.S. problem.
- *Stove-piped missions; priority on the counter-drug mission.* Existing U.S. efforts to the mission of detecting and interdicting illegal trafficking from Latin America could also be applied effectively for detection and interdiction of WMD smuggling. However, the resources and capabilities dedicated to each mission are stove-piped. For example:
 - JIATF-South provides an effective coordination center to link regional nations and U.S. departments and agencies to counter illicit trafficking. The JIATF-South model might also be applied to the counterproliferation mission.
 - However, at USSOUTHCOM and JIATF-South, the priority is on the counter-drug mission. CWMD has received minimal attention.
- *Poor states, domestic instability, and safe havens.* The region includes a number of states which lack the resources and governance to comply in any meaningful way with UNSCR 1540 and other CWMD initiatives. Poor and poorly governed states can provide a safe haven for traffickers and groups linked to terrorist organizations.
- *Growing worries over Latin America.* Several factors appear to compel U.S. leaders to pay more attention to potential WMD threats from Latin America:
 - The potential expansion of nuclear power,

- A sophisticated biopharmaceutical industry;
- Regional power blocs that exclude the United States;
- Dedicated efforts by Iran and Russia to expand their influence in Latin America; and
- Non-state groups that perpetrate terrorist acts, some of which are linked to larger terrorist organizations such as Hezbollah and Hamas.

IV. PARTNERSHIP OPPORTUNITIES

Potential Partners in Helping to Build Counterproliferation Capabilities

We have assessed the suitability of potential partners according to the following criteria:

- Counterproliferation skills, assets and commitment;
- Personnel, financial, technical and organizational resources;
- Willingness to lead and to provide assistance;
- Credibility and trusted relationships – or at least acceptability – with one or more priority countries;
- International and regional standing.

We have not identified any potential provider partners within Latin America according to the above criteria. Brazil, Argentina and Chile hold the most promise over the long run, but they do not yet have the necessary resources and/or commitment to fulfill that role. Among potential partners outside the immediate region, France and Canada rank high on all the criteria, and would be able and willing partners in helping to build Latin American counterproliferation capability. Both, and perhaps France in particular, could work with priority states that are reluctant to cooperate with the United States.

Potential International Mechanisms

G-8 Global Partnership (GP). Although the June 2010 G-8 Summit failed to agree to extend the GP or officially to expand assistance worldwide, all members were willing to do so. Several GP donors already pursue nonproliferation assistance programs outside the former Soviet states that were the original GP focus. France and especially Canada are the most likely GP donors to develop projects in Latin America. Canada was the G-8 President in 2010 and is one of the strongest GP advocates.

Nuclear Security Summit. All participants in the April 2010 Nuclear Security Summit endorsed the goal of Global Nuclear Lockdown in four years and committed to provide assistance as appropriate and possible. Sous-Sherpas and Sherpas will meet every few months between now and the immediate run-up to the next Nuclear Security Summit, to be hosted by South Korea in 2012. Argentina has shown special interest in the initiative, hosting the first post-Summit Sherpa meeting in October 2010. We might build on that interest by urging Argentina to hold a regional nuclear security seminar – including both Summit participants and non-participants – as Poland did for Central and Eastern Europe in late summer 2010.

UNSCR 1540 Committee. The Committee was formed to be a repository of information on the status of national implementation of UNSCR 1540 and to facilitate implementation assistance for those requiring it. It has been a disappointment in both respects, and especially the second.

Priority States in Latin America all submitted the required national reports shortly after UNSCR 1540 was passed in 2004. Although those varied greatly in quality, at least they provided some information. Since then, most countries have failed to provide the required annual updates, or have done so only sporadically. One reason for the falloff in reporting may be the absence of

concrete assistance. Potential recipients fail to see a benefit in continuing reports, while potential donors continually state their willingness to provide assistance, with little or no follow-through. The idea of a G-8 GP standing group on UNSCR 1540 implementation might help move that forward. Even more effective would be continuation of the CARICOM 1540 Coordinator and creation of a comparable post for Central America under the SICA.

PSI and GI. The failure of many – indeed, most – major Latin American states to join PSI or GI definitely constrains the extent to which either initiative can be used as a vehicle for regional counterproliferation capacity-building. Continuing to include PSI elements into major regional military exercises and repeating the May 2009 Western Hemisphere PSI Operational Experts Group outreach meeting may help encourage regional states to become more active, even if unofficially. Although even fewer Latin American states participate in the GI, it may become a vehicle for regional counterproliferation capacity-building if the June 2010 GI Plenary decision to make the Initiative more action-oriented is actually implemented. That will be particularly the case if any GI activities involving Latin American states are viewed as enhancing capabilities against terrorism in general, rather than solely against nuclear terrorism.

U.S. Vehicles for Building Counterproliferation Capabilities

U.S. activities in PSI, GI, USSOUTHCOM theater cooperation programs, and the activities of JIATF-South and potentially JIATF-North are potentially important elements in helping to build counterproliferation capabilities in Latin America. So too may be U.S. nonproliferation assistance programs like DOE's Global Threat Reduction Initiative (GTRI) and Second Line of Defense (SLD) programs, DoD's Cooperative Threat Reduction (CTR), the State Department's Biological Engagement Program (BEP) and EXBS. Other potentially important mechanisms are the State Department's sub-regional initiatives to counter illicit trafficking, including Merida, Beyond Merida, CARSI and CBSI.

As the above list indicates, key U.S. mechanisms to help build counterproliferation capabilities in Latin America will be identified as, and focused on, countertrafficking. Regional states appreciate the dangers of drug, money and human trafficking in a way that they do not perceive a WMD proliferation threat.

The reluctance of some important states in the region to cooperate with the United States does not mean that the United States should curtail or abandon these efforts. Instead, where required and possible, the United States should use less politically controversial mechanisms for the purpose, including the Global Initiative, G-8 Global Partnership, UNSC 1540 Committee, and the continuing Nuclear Security Summit Sherpa process. In addition, as discussed above, we should work frequently with and through Canada and France.

Sequencing of cooperative efforts will also be important. For example, a state might be willing to work with us on action against drug trafficking, but not on WMD interdiction. Over time, positive experience with cooperation could help build the relationships – and the threat awareness – needed for more active work. The same process could apply in the biological area; for example, states might be open to initial cooperation in biosafety and diagnostics, building later to disease surveillance and biosecurity.

Receptivity of Priority Countries

Argentina is a member of the PSI as well as the PSI Operational Experts Group. It has displayed some penchant for leadership by hosting regional seminars on implementation of UNSCR 1540 and hosting the first Sherpa meeting following the April 2010 Nuclear Security Summit. Regional experts suggest that with proper encouragement and support Argentina might be willing to take on a more active role in counterproliferation activities.

Brazil apparently has aspirations as a regional leader that operates independently from the United States. Brazil's attempt to broker a solution to the Iranian nuclear issue and opposition to sanctions on Iran shows a lack of concern for nuclear proliferation issues and willingness to assert itself in ways that are in conflict with U.S. policies. Brazil's newly elected president, like her immediate predecessor, will likely be cool to initiatives seen as only serving U.S. interests. At the same time, Brazil's plans to host the World Cup in 2014 and Olympics in 2016 may provide an opening for engagement on improving security and response capabilities in advance of these events. Brazil has a lot at stake in its responsibility to provide security for these international events. Brazil may be more receptive to overtures on security assistance if they are proposed by a country other than the United States, such as Canada or France (or proposed jointly by several countries).

Chile has displayed a willingness to work with the United States on counterproliferation activities. It is a member of the PSI and GI, is an active participant in USSOUTHCOM military exercises, and as its contribution to the Nuclear Security Summit agreed to divest itself of its HEU.

Colombia, recently, has cooperated actively with the United States in combating drug cartels and local terrorist groups. Its seizures of uranium quantities in the hands of FARC rebels indicates an awareness of the potential threat from WMD smuggling. However, the newly elected President of Colombia has stated his intent to work more constructively with his anti-U.S. neighbor, Venezuelan leader Hugo Chavez. The United States may need to build on existing anti-trafficking activities in a low visibility manner.

Mexico is a member of the GI but not PSI. It also provides representatives to JIATF-South to coordinate information to combat illegal trafficking. Anti-US sentiment often runs high among the population in Mexico. Therefore, officials in Mexico City are likely to be most receptive to counterproliferation capabilities that also provide benefits in other areas, including law enforcement and combating illicit trafficking. Programs that link Mexican technical, law enforcement, and military professionals with their U.S. counterparts and provide tangible benefits are likely to be welcomed.

Panama is a member of both the PSI and GI and has been a very active participant in U.S.-led port security initiatives such as Megaports and the Container Security Initiative. It is active in the annual USSOUTHCOM exercise PANAMAX. Panama has shown a willingness to take on a leadership role in the Central American Integration System.

Peru is the only one of the seven priority countries in Latin America that has not displayed a willingness to participate in multilateral counterproliferation initiatives. However, its 1540 report to the UN is more detailed than that of most other Latin American states, indicating a serious approach to this mission.

V. RECOMMENDATIONS

The recommendations that follow are intended as initial steps toward the following goals:

- For priority countries closest to the United States and the Panama Canal, improve existing capabilities in all categories – from threat awareness through consequence management.
- For priority countries in the southern cone of Latin America, assist them in building threat awareness, legal frameworks, and access denial capabilities. In addition, propose a regional incident response force composed of and led by states in the southern cone. Forthcoming events including the World Cup games in 2014 and Olympics in 2016 provide a strong motivation for such regional capabilities.
- For states other than identified priority countries, in particular Central American states – some of the poorest states in the region and with limited ability to govern effectively – provide basic assistance to begin building appropriate legal frameworks and enforcement capabilities.
- In the United States, build on the Joint Interagency Task Force model to facilitate the fusion and dissemination of information to both U.S. agencies and priority countries.

Latin America - Priority Counterproliferation Tasks

Threat Awareness and Information Sharing

DoD in coordination with other agencies should make a dedicated effort to use meetings with key Latin American officials to provide informational briefings on regional WMD threats and to identify the range of potential consequences from a WMD attack or incident in ways that relate to their interests.

One specific outcome from building greater threat awareness should be to motivate increased participation of Latin American countries in key counterproliferation-related initiatives, including PSI and GI. Specifically, we should seek greater participation by countries in the following key initiatives:

- GI: Brazil, Colombia, Peru
- PSI: Brazil, Mexico, Peru (Peru's Foreign Ministry is reported to be interested in PSI)

To enhance the chances for both receptivity by priority countries and sustainability of new counterproliferation capabilities, the U.S. Government should seek to engage senior (and prospective future) leaders in these countries in a “capstone-type” approach that would acquaint them with the full range of WMD threats and actual and potential capabilities to counter them.

For Latin American countries reluctant to cooperate directly with the United States, Canada and France may be able to encourage these countries to improve counterproliferation capabilities.

National Legal Frameworks

DoD should work with State to offer assistance in developing legal frameworks for UNSCR 1540 implementation to priority countries including Argentina, Chile, Mexico, and Peru.

For some sub-regions of Latin America, countries need very basic assistance in organizing an approach to UNSCR 1540 responsibilities. Central America is one of those sub-regions. DoD should suggest to State the appointment of a UNSCR 1540 coordinator for Central America, similar in role to the 1540 coordinator appointed for the Caribbean.

Access Denial and Detection

DoD should work with DOE to offer appropriate countries nuclear security assistance, such as vulnerability assessments and security upgrades. Assistance for nuclear security upgrades should be offered, in particular, to Argentina while this country recovers economically.

In addition, DoD should work with other agencies to offer assistance to improve port and airport security to priority countries, including Peru.

Treasury should extend assistance to improve financial tracking and accountability to priority countries as well as others with identified financial accountability deficiencies, such as Argentina.

The planned 2014 World Cup games and the 2016 Summer Olympics which are to be held in Brazil provide a challenge and an opportunity. The challenge is to ensure security for these events. Since the 2016 Summer Olympics is the first to be held in South America, the safe conduct of this event should be in the interests of most, if not all, countries in the region. DoD should work with DOE to propose a partnership for security planning and upgrades for South American countries in preparation for the 2014 World Cup and the 2016 Summer Olympics. (U.S. officials can cite examples of similar security upgrades such as for the recent Olympics held in China and Greece.) For consequence management (see below), development of a regional response force is also recommended.

Interdiction and Consequence Management

For southern cone states (e.g., Argentina, Brazil, Chile, Peru), a coalition of countries could form a counter-terrorism regional response force in preparation for the 2014 World Cup and the 2016 Summer Olympics. This regional response force should then continue post-Olympics. USSOUTHCOM is suggested as the U.S. lead for this initiative, in cooperation with State, DHS, and DOE. JIATF-South or a similar command center approach could provide valuable information fusion and exchange, analysis, and coordination functions to enhance security. As part of this initiative, the United States and other countries (e.g., Canada, Germany, France, Netherlands, Spain) with interests in South America may need to provide military and other capabilities directly to some southern cone states, especially Peru, for interdiction and consequence management missions.

The National Guard State Partnership Program has 21 partnerships with countries in Latin America, including three priority countries (Chile, Panama, and Peru). At a minimum, this program should be expanded to establish “twinning” relationships between U.S. National Guard Homeland Response Force units and their counterparts in Mexico.

Recommended actions for the DoD:

- Increased emphasis should be placed on the counter-WMD mission and the role of regional COCOMs in the Unified Command Plan (UCP), Global Employment of the Force (GEF), and other appropriate guidance documents.
- USSOUTHCOM needs to develop procedures and identified response forces to interdict/seize suspected WMD.
- As soon as feasible, consider installing the Ocean Surveillance Initiative capability (perhaps, as a prototype) to improve recallable maritime surveillance data for the Gulf of Mexico and/or Caribbean. USSOUTHCOM and JIATF-South should help determine the best deployment locations that would complement existing surveillance operations.

Recommended actions for DTRA:

- Assign a DTRA liaison officer to work directly with JIATF-South.
- Provide DTRA support to the NORTHCOM initiative to establish JIATF-North in El Paso, Texas.
- Work with NORTHCOM to evaluate authorities needed for special purpose National Guard units (e.g., chemical, biological, radiological decontamination and response) in the United States and to provide consequence management capabilities, if needed, for incidents in Mexico. Offer CWMD training for counterparts in Mexico to build their skills.
- Continue the DTRA ICP Program. As resources permit, increase the level of funding available to support ICP training for priority countries.