



Strengthening the Global Nonproliferation Regime:  
Views from the Next Generation



edited by  
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## Pacific Forum CSIS

Based in Honolulu, the Pacific Forum CSIS ([www.csis.org/pacfor/](http://www.csis.org/pacfor/)) operates as the autonomous Asia-Pacific arm of the Center for Strategic and International Studies in Washington, DC. The Forum's programs encompass current and emerging political, security, economic, business, and oceans policy issues through analysis and dialogue undertaken with the region's leaders in the academic, government, and corporate areas. Founded in 1975, it collaborates with a broad network of research institutes from around the Pacific Rim, drawing on Asian perspectives and disseminating project findings and recommendations to opinion leaders, governments, and members of the public throughout the region.

The Young Leaders Program invites young professionals and graduate students to join Pacific Forum policy dialogues and conferences. The program fosters education in the practical aspects of policy-making; generates an exchange of views between young and seasoned professionals; promotes interaction among younger professionals; and enriches dialogues with generational perspectives for all attendees. Fellows must have a strong background in the area covered by the conference they are attending and an endorsement from respected experts in their field. Supplemental programs in conference host cities and mentoring sessions with senior officials and specialists add to the Young Leader experience. The Young Leaders program is currently supported by the Freeman Foundation, the Luce Foundation and the Hon. Alfonso Yuchengco. For more details, see the Pacific Forum CSIS website, [www.pacforum.org](http://www.pacforum.org), or contact Brad Glosserman, director of the Young Leaders Program at [bradgpf@hawaii.rr.com](mailto:bradgpf@hawaii.rr.com).

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The program in Singapore would not have been possible without the organizational and financial support of Singapore's Institute of Defense and Strategic Studies (IDSS). Singapore's Institute of International Affairs (SIIA) also provided a stimulating roundtable discussion with its researchers.



## Introduction

The Pacific Forum CSIS devotes considerable effort to fighting the proliferation of weapons of mass destruction (WMD). As secretariat of the U.S. Committee of the Council for Security Cooperation in the Asia Pacific (USCSCAP), the Pacific Forum chairs (along with CSCAP Singapore) the CSCAP Study Group on Countering the Proliferation of Weapons of Mass Destruction in the Asia Pacific. During the life of the Study Group, it has become clear that there is a gap between the rhetorical commitment by Asia Pacific governments to fighting the spread of WMD and their actions to accomplish that goal. There are many reasons for the inaction, but the most important seems to be a failure on the part of regional governments to appreciate the threat posed by such weapons. For them, WMD are not a pressing security concern; most typically, it is someone else's problem.

This failure to grasp the reality of the WMD threat underscores the importance of the Pacific Forum's efforts to incorporate the Young Leaders program into our CSCAP project. The inclusion of up-and-coming young security professionals in these discussions allows future policymakers to learn the significance of the WMD issue, to see how various perspectives on the problem can impede cooperation, and to facilitate the communication that is the foundation of cooperative efforts to tackle the WMD threat.

Pacific Forum CSIS has had a growing contingent of Young Leaders at all three meetings of the WMD Study Group. (Their papers, and reports from the Study Group meetings are available at the Pacific Forum CSIS website, [www.pacforum.org](http://www.pacforum.org)). At the third meeting of the Study Group, held in Singapore March 26-27, 2006, 18 Young Leaders from 10 different countries (10 of them participating for the first time; one a veteran of six earlier conferences) joined 70 participants from governments, think tanks, and academia for two days of intense discussions. They were especially fortunate – as were the CSCAP members – as the meeting immediately preceded a workshop on WMD proliferation that was hosted by the ASEAN Regional Forum. A substantial number of ARF officials attended our meeting (in their private capacities); this crossover between tracks one and two is one of the advantages of the CSCAP process and affords Young Leaders unparalleled access to regional security decision makers.

### **The Young Leaders Program**

In Singapore, the Young Leaders began with a full day of discussions that were organized by our CSCAP cohosts, the Singapore Institute of Defense and Strategic Studies (IDSS). The Singapore Institute of International Affairs (SIIA) hosted a morning roundtable at which SIIA researchers provided summaries of their work. These presentations – on Regional Environmental Cooperation, an ASEAN Human Rights Mechanisms, and Regional Economic Cooperation – gave Young Leaders a window on regional thinking about security issues and underscored differences in the Southeast Asian perspective from that commonly found in the U.S. As SIIA Executive Director Dr. Yeo Lay Hwee explained, the research focus of SIIA “has been moving from hard security issues to softer ones.”

Discussion focused on the role ASEAN can play in helping strengthen global norms and exploring ASEAN's traditional operating principles. Many of our Southeast Asian Young

Leaders voiced frustration with the reluctance of ASEAN governments to be more forthright in the defense of international standards; in many cases, the old rules may exist in name only and regional governments are more willing to intervene in the affairs of neighbors. Considerable time was devoted to the notion of Asian values, with most agreeing the debate was more formulaic than substantive. There appears to be agreement that most citizens (and governments) of ASEAN use one benchmark to evaluate policy: does it improve lives? Abstract philosophical debates about values or sovereign rights have little influence. The region has to tackle too many issues that have a real impact on daily lives to squander time and resources.

After lunch, the Young Leaders heard presentations from IDSS researchers on: the role of religion on Southeast Asian insurgencies; Jemaah Islamiyah; the impact of the revolution in military affairs on conventional deterrence; and piracy in the Malacca and Singapore Straits. Several of the Young Leaders also provided brief summaries of their own research. As the presentations were somewhat technical, the discussion tended to be detail oriented and tried to explore the implications of the research.

### **Young Leaders breakfasts**

Young Leaders are encouraged to participate fully in all our Pacific Forum/USCSCAP-organized meetings. At previous CSCAP meetings, the chair has called on Young Leaders to present brief summaries of their work when it was appropriate to the topic at hand. This time, however, the size of the Study Group and the agenda precluded such active involvement, although Young Leaders were encouraged to join the dialogue during general discussion periods.

As in the past, we also arranged breakfast meetings between Young Leaders and individuals that can offer insight into issues of concern. In Singapore, Young Leaders had the option to breakfast with either Mr. Jang Song Chol, a researcher at the DPRK Institute for Disarmament and Peace (the DPRK CSCAP secretariat), or Dr. Lawrence Scheinman, Distinguished Professor at the Monterrey Institute of International Studies and former Assistant Director for Nonproliferation and Regional Arms Control at the Arms Control and Disarmament Agency. With Mr. Jang, Young Leaders heard about life in the DPRK and got a North Korean perspective on international affairs. The discussion was considerably more candid and much more wide ranging than that at the conference table. Meanwhile, Dr. Scheinman shared the insights accumulated over 40 years of working on nonproliferation issues, including participation in the negotiations on the Nuclear Non-Proliferation Treaty. Pacific Forum thanks both men for taking the time to meet with Young Leaders.

### **Post-meeting discussion**

Following the CSCAP meeting, the Young Leader held their own roundtable, a two-hour discussion in which only Young Leaders participate, moderated by the Pacific Forum. As in the past, the discussion was spirited. Considerable time was spent debating the relevance of the nuclear weapons states' (NWS) commitment under Article VI of the NPT to commit to eventual nuclear disarmament. Southeast Asian participants acknowledged that disarmament is a long-term goal and perhaps even a dream, but they explained that those obligations gave their countries a stake in the global nonproliferation regime and gave them leverage in dealing with



NWS. They “leveled” the playing field and therefore could not be disregarded as merely unrealistic. (Not only Southeast Asians were disturbed by the NWS’ blithe approach to Art. VI; other Asians and several U.S. participants called for more attention by the NWS to those commitments.)

At the same time, Young Leaders understood the significance of the WMD threat and the gap between many of their own government’s statements and actions. Several were troubled by the seeming lack of concern about WMD and the refusal to admit that it is a potential problem for them. Several of the papers examine the reasons for these different threat perceptions. While demanding that NWS take disarmament obligations seriously, they conceded that proliferation is a more immediate threat requiring quicker action. This difference in time horizons mandates different responses.

Young Leaders also focused on the different rationales for acquiring WMD. Of course, there is no single explanation for proliferation and every case is different. Nonetheless, Young Leaders zeroed in on the need to de-legitimate such weapons: NWS should stop developing new weapons, and avoid giving the impression that such arsenals enjoy military utility. As one Young Leader explained, “we have to reduce the strategic value of nuclear weapons.” At the same time, there needs to be more rewards for “good behavior.” Efforts need to be made to increase the prestige of not having nuclear weapons.

Young Leaders noted that supply-side efforts can only do so much. Governments need to focus on the insecurities that give rise to WMD programs. Counter-proliferation should target nonstate actors that cannot be deterred or dissuaded by more traditional instruments of statecraft.

Our discussions in the Study Group have made clear the need to impress upon Asian governments the seriousness of the WMD threat. To their credit, our Young Leaders “get it” – they clearly understand both the dangers posed by WMD proliferation and the failure of their own governments to respond. Hopefully, they will take up the challenge of raising awareness and pressing their governments to take action. Their assembled papers should be taken seriously; they are filled with insights and good suggestions for dealing with a growing threat.



# Restoring the Nonproliferation Imperative: Securing Widespread Investment in the Regime through Legitimate Leadership

By Jennifer Bulkeley

*Whose problem is proliferation, anyway?* Although delegates to the March 2006 CSCAP Study Group on Countering the Proliferation of Weapons of Mass Destruction (WMD) in the Asia Pacific used more nuanced and diplomatic language in their discussion of the nonproliferation regime, this fundamental question of responsibility and leadership permeated the two-day meeting in Singapore.

**Today, the greatest threat to the nonproliferation regime is that nuclear technology continues to spread, but belief in the generally accepted norm that further proliferation is dangerous is eroding.** Many official delegates and Young Leaders admitted that despite rhetorical commitments, their governments did not see nonproliferation as a priority, and were content to let the nuclear weapons states (NWS) assume responsibility for addressing challenges to the regime.

While the current nuclear crises in Iran and North Korea are, indeed, being handled primarily by the NWS, non-nuclear weapons states (NNWS) should *also* be worried about nonproliferation for three important reasons.

First, although arguments that more weapons would lead to greater stability were in vogue during the Cold War, technical risks outweigh any potential added value from deterrence. Proliferation produces fissile material that will outlast any government in power today; with a half-life of thousands of years, every ounce of fissile material produced creates additional problems for safe storage, secure transport, prevention of accidental launch, and protection from theft or blackmail. With 35-40 states capable of developing a nuclear weapon, the technology is out of the bottle – and no technical firebreaks can prevent the knowledge from spreading further.

Second, states must remember that by exercising restraint, they bolster a regime that helps constrain their neighbors and potential adversaries. As the demand for nuclear energy increases and international law struggles to keep pace with the threat posed by nonstate actors, all states must cooperate to protect existing fissile material and prevent the material from getting into the wrong hands and beyond the reach of international oversight.

Third, as globalization facilitates movement of goods and knowledge across borders, we must all invest in a regime that will provide confidence among trading partners that the goods and knowledge one provides to another will be protected and not used against the seller in the near or distant future.

Today, states cannot afford to abandon the regime that has served us so well for the last 40 years. The NPT remains the foundation of the nonproliferation regime and must be consistently reinforced, but today's leaders can enhance the strength, relevance, and legitimacy of the treaty by "thinking outside the box" to devise innovative strategies for addressing the new

technologies, capabilities, and political realities that challenge the current and future nonproliferation regime.

Action plans from Europe and East Asia are steps in the right direction, but how can the United States help make these action plans meaningful?

**Devalue the currency of nuclear weapons.** The U.S. must reinforce the principles of nonacquisition and disarmament upon which the entire regime is based, engaging Iran, the DPRK, and other potential violators and impressing upon them that the choice to develop nuclear weapons will be followed by economic sanctions and political isolation that will prevent them from playing an active role in the international system.

**Delegitimize nuclear weapons in our own posture; restore faith in the NPT.** To convincingly make this argument to other states, the U.S. must demonstrate that it, too, is willing to abide by the principles and requirements enshrined in the NPT. At present, nuclear weapons do not figure into the strategic calculus or operational strategy of either the U.S. or most other recognized NWS. The U.S. must make this undeniably clear in both word and deed, by reinforcing the moral argument against proliferation by making a good faith effort to fulfill its own responsibilities under the NPT.

**Strengthen international law and IAEA inspection/verification capabilities.** The U.S. should lead international efforts to bolster the IAEA's ability to inspect and verify existing and suspected nuclear facilities and weapons programs. An institutionalized, multilateral approach is necessary for international legitimacy and provides an opportunity for all states to support and invest in the system.

**Demonstrate that we are good faith participants in the international nonproliferation campaign.** While the NPT alone cannot prevent proliferation or eradicate nuclear weapons, the U.S. must demonstrate that it acknowledges the importance of its treaty obligations by reducing its nuclear arsenal, taking weapons off high alert, and signing the CTBT and Additional Protocol. By visibly committing itself to a non-nuclear defense strategy and ensuring that the basic framework of the NPT is upheld, the U.S. can symbolically reaffirm that all parties are working toward the same goal.

**Ensure proliferators pay a cost; punish violators and make such behavior unacceptable.** While peaceful diplomatic solutions should be the primary strategy for raising awareness of nonproliferation obligations and coaxing alleged violators back into the regime, these efforts may ultimately require the use of political or economic sanctions or, as a last resort, military force. The U.S. must work with the international community to institute clear "firebreaks" and make clear that states that refuse to comply with their NPT obligations will be punished. Leaders should develop both domestic and international legal bases for political or economic sanctions and multilateral military strikes against a violating state.

**Reward good behavior by those who honor their nonproliferation commitments.** The motivations that drive a state to develop nuclear weapons are complex, ranging from security concerns to domestic politics to prestige, to name a few. While the temptation to

develop a nuclear capacity may never disappear, we must find ways to emphasize that states are better able to provide the economic and political security their citizens need if they do not seek a weapons program that will cost millions and threaten international security.

**Provide extra-treaty reassurances to NNWS.** At present, the NNWS demands are too large for the U.S. to realistically consider; the 13 Steps were “big bites” that are politically infeasible. Instead, Washington should pursue smaller, more manageable strategies that would also promote nonproliferation principles and increase transparency and goodwill between the U.S. and other NPT parties. Washington might, for example, reinstate the program to bring foreign guests to U.S. national labs to show them how our disarmament process works.

**Recognize that other states continue to see nonproliferation and disarmament as inextricably linked.** Despite the continued risks, discussions in the nonproliferation dialogue have essentially reached a standstill. Concerns about nonintervention in another state’s affairs, the sovereign right to boost a state’s own national capacity, and the “fairness” of the existing world order have reduced the rank of nonproliferation among global priorities.

Speakers from non-weapons states insisted that disarming the NWS was as important as preventing the creation of new ones, yet insisting on disarmament before further commitments to nonproliferation is an excuse to avoid investing in a regime that may provide greater payoffs for our great-grandchildren than for ourselves.

- **Provide information about our own disarmament progress and successes.** The U.S. nuclear arsenal today is approximately half the size of our arsenal in 1990.<sup>1</sup> Emphasizing this progress and President Bush’s pledge to further reduce the U.S. arsenal to 1,700-2,200 warheads will demonstrate our commitment to the NPT and its principles.
- **Provide transparency about our own program,** and make a good faith effort to share the knowledge gained from our experience in improving the safety and security of our own arsenal.
- **Establish clear obligations and criteria for Article VI.** Many Americans argue that the U.S. is fully compliant and others should follow suit, arguing that NWS are committed to the text of the article and nothing beyond that. Clearer articulation of obligations will help resolve the intractable dispute over the interpretation of Article VI requirements and help restore faith in both the NPT and the intentions of its signatories.

**Consider new and innovative means of preventing further proliferation.** The international community can take immediate steps to supplement the NPT by initiating additional, non-treaty-based approaches to nonproliferation. The U.S. should use its economic power and technological expertise to lead these efforts.

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<sup>1</sup> The U.S. does not provide official numbers on the size of its nuclear arsenal, but *Deadly Arsenals* (Carnegie Endowment, 2002) reports that the U.S. had 10,563 accountable nuclear weapons in 1990 and only 5,949 accountable weapons in January 2002. The NDRC reports that the U.S. had 10,000 deployed and stockpiled strategic and tactical weapons in 2001, down from a stockpile of 21,000 in 1990.

- **Purchase, at any cost, all available remaining nuclear material.** The U.S. should lead the international community in an effort to immediately purchase the remaining nuclear material in the former Soviet Union and in any other state that is willing to sell the material for economic profit. Washington can outbid any terrorist or rebel group, and must purchase this material, remove it, and place it safely under international control before it falls into the wrong hands. Nunn-Lugar efforts must be redoubled and completed within the year; current efforts are hampered only by lack of political commitment.
- **Support creation of viable export control regimes.** Following the example set by U.S. cooperation with China, the U.S. should assist other states' efforts to develop, implement, and enforce viable export control regimes. U.S. technological, political, and procedural expertise could be spread through workshops and training missions, helping states design programs that are both appropriate for their country and compatible with U.S. and international systems.
- **Stop the spread of sensitive nuclear fuel-cycle facilities.** Current arrangements allow NNWS to develop uranium enrichment and spent fuel reprocessing plants for civilian energy programs, yet these fissile materials can be quickly weaponized through domestic political decisions. Once produced, highly-enriched uranium and plutonium will remain on earth for thousands of years, susceptible to the political whims of coups, terrorists, or criminal groups. The U.S. should work with Russia and the IAEA to consider the creation of a nuclear energy consortium, through which a multilateral supply regime would guarantee NNWS access to fuel cycle technologies and spent fuel removal services under IAEA safeguards. Such a system would help blur the divisions in the existing two-tiered system that currently frustrate many NNWS, and would also allow states to invest in a legitimate, multilateral effort to promote global security. By staying "ahead of the curve" on issues related to the inevitable spread of nuclear energy, CSCAP can make a meaningful contribution to both the political and technological debates as capabilities evolve.
- **Insist on greater transparency for existing civilian nuclear facilities.** The optimal solution is to encourage all states to sign the NPT, but political realities dictate that alternative strategies may be necessary to improve security for existing programs that fall beyond the purview of the treaty. In states where weapons programs are hardened against sanctions and civilian nuclear programs are impervious to international pressure, Washington should lead alternative efforts to promote transparency and accountability.

Like the U.S. and French deals with India, the international community might offer civilian nuclear cooperation in exchange for international inspections and full-scope safeguards, a comprehensive testing ban, export controls lists compatible with NSG requirements, and a willingness to place all material transfers under IAEA oversight. While such an arrangement is not ideal, establishing a legal and institutional framework to oversee the programs will help prevent further proliferation.

- **Reinforce the Proliferation Security Initiative (PSI) and seek more universal participation.** The PSI program is a successful and promising extra-treaty arrangement that has tremendous potential for reinforcing the NPT. While the U.S. has demonstrated tremendous leadership in the development of the PSI and other intelligence-sharing programs, it must also acknowledge that transparency and multilateral control are essential to garnering full international support and assuaging fears that these programs are mere instruments of U.S. policy.

**Affirm the U.S. role as a “Legitimate Leader.”** The NPT has been remarkably successful in preventing the spread of nuclear weapons, but if the norms disintegrate and parties lose trust in their neighbors, technical firebreaks will be unable to prevent widespread proliferation.

U.S. leaders must demonstrate both symbolic leadership, by committing to the principles of the NPT, as well as functional leadership, encouraging and supporting the development of new extra-treaty programs to prevent the spread of WMD.

Acting alone or without regard for existing international laws and institutions will ultimately undermine both U.S. efforts and the already eroding global support for the nonproliferation regime. To bolster the nonproliferation norm and the regime itself, the U.S. must provide active leadership within the international community to devise creative and innovative multilateral approaches for nonproliferation.





# Is Global Nonproliferation Dead?

By Hyun Jung Jo Choi

Tasked with this paper assignment, I thought it a great opportunity to talk with two experts who could shed light on the dilemmas in the global nonproliferation order. This short article includes excerpts from interviews I conducted with professors Robert Pfaltzgraff and Adil Najam of The Fletcher School of Law and Diplomacy. Both professors were asked the same question, “What do you believe is the greatest threat to the global nonproliferation order today?”

## Remarks by Professor Robert Pfaltzgraff

Robert Pfaltzgraff outlined three main threats to global nonproliferation. The first threat is state actors who already have or seek nuclear capability within the Nuclear Nonproliferation Treaty (NPT). Article 4 of the NPT allows state actors to “develop, research, produce, and use nuclear energy for peaceful purposes without discrimination.” Iran, for example, is allowed to reprocess uranium for civilian purposes under the NPT. But how is one to determine the real intentions behind a nation’s decision to seek “peaceful” access to nuclear technology? Even with safeguards like the Additional Protocol, a state can enrich uranium at lower levels for peaceful objectives and then withdraw from the NPT or operate a clandestine nuclear facility.<sup>1</sup> The obvious problem with inspections and safeguards is that they only work as well and as long as the nation cooperates.

There is also the problem of nonmembers, who have acquired nuclear capabilities outside of the NPT, including Israel, Pakistan, and India. The acquisition of nuclear weapons is not necessarily destabilizing. Depending on the nature of the regime and its foreign policy, having nuclear weapons can be stabilizing, as in the case of Israel. However, nuclear weapons in the hands of “rogue regimes” like Iran and North Korea – which are neither open, nor transparent, or have a centralized command and control structure – could spark nuclear scares and crises that could destabilize the regional and world order.

A second threat is the relative ease with which nuclear information, technology, and materials are made available to the A.Q. Khan networks of the world, through direct and/or indirect state support or through actors who act alone. Such transnational and clandestine networks will make nuclear technologies more readily accessible, with consequences for the third threat, that of nonstate actors. In addition to nuclear technology and materials obtained through networks like that of A.Q. Khan, nonstate actors can also obtain such materials through theft. If they acquire nuclear weapons, nonstate actors, unlike states, are not bound by norms, obligations, or compliance to treaties and may not hesitate to detonate a crude nuclear device.

The inherent limitations of the NPT preclude a strategy that focuses mainly on nonproliferation. If amending the NPT is unrealistic and additional inspections are only marginally useful because adherence is voluntary, perhaps the time has come to focus on strategies of deterrence, preemption, and retaliation.

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<sup>1</sup>Robert L. Pfaltzgraff, Jr. “The Future of the Nonproliferation Treaty.” *The Fletcher Forum*, Spring 2006. Available online at: <http://fletcher.tufts.edu/forum/>.

## **Remarks by Professor Adil Najam**

Adil Najam believes we are in a new age of proliferation as the political costs of “going nuclear” have decreased. If before, nuclear weapons were weapons of choice for major powers and/or a matter of national pride, nuclear weapons have become the ultimate equalizer for weaker states. The world sent a clear message to states that aspired to have nuclear weapons: “Do not build those weapons, or else... nothing.” Having been threatened with consequences without follow-up, would-be nuclear states learned from the experiences of Israel, Pakistan, and India: they can build nuclear weapons, for the rest of the world will learn to live with it. A more recent message appears to have emerged from the situation with Iraq and North Korea: if the U.S. does not like you, they will do something about it (Iraq) unless you have nuclear weapons (North Korea). It seems nuclear weapons have become a form of insurance against labels such as “the axis of evil” or threatening postures from one’s adversaries. If alienated as an “evil” state from a system that has no carrots or sticks as leverage, what more political cost will a state expend if it builds nuclear weapons?

We appear to be stuck in the 1980s mentality, believing that proliferation takes place through trading of nuclear secrets, know-how, and technologies. In reality, however, hurdles to proliferation are no longer technological, they are political. Since the political costs appear to have decreased, nuclear weapons have taken on the role of power equalizer. Faced with a superpower like the United States – which is expanding its nuclear arsenal and has demonstrated its willingness to use nuclear weapons as a first strike option – nations have begun to think of nuclear weapons as a bargaining tool. If one lives in a tough neighborhood, as does Iran, should one not buy a gun for self-protection?

Given that the major powers have distorted the system by sending ambiguous signals and altering the incentive structure of the nonproliferation system, they hold the highest responsibility and ability to stop proliferation. Short of a rollback of nuclear arsenals – a highly unrealistic scenario – the world appears to be heading toward proliferation. Proliferation will not stop as a result of measures such as the marginalization of nations; major powers have to drastically change the current incentive structure. The world and major powers should either threaten noncompliant states with harsher penalties and real consequences or dramatically increase incentives for nonproliferation.

## **Conclusion**

Recent events have led to a loss of faith in the nonproliferation order. Robert Pfaltzgraff would like to see more focus on defensive and offensive strategies of deterrence, preemption, and counter-proliferation, while Adil Najam would like to see a drastic increase of carrots and/or sticks to make proliferation costs much higher. Both experts appear to believe that the issue of nuclear weapons can no longer be tackled through nonproliferation.

Writing about this topic last year, I was convinced – and I remain so – that nuclear powers bear much of the responsibility for increased proliferation. Indeed, the NPT is a two-way bargain: nonnuclear states agreed to forgo nuclear weapons in exchange for nuclear states dismantling their nuclear arsenals. It would be inconceivable to expect nonnuclear states to

willingly give up such powerful technology with no comparable return in safety. I agree with Adil Najam that major powers have distorted the incentive structure of the nonproliferation system; they have done that, and continue to do so, by increasing their nuclear weapon stockpiles or by developing more lethal systems, as recent reports indicate.<sup>2</sup> Dealing with nuclear proliferation by focusing on nonnuclear states is akin to dealing with symptoms rather than the disease.

Regardless of how naïve or idealistic the expectations of disarmament by nuclear weapons states may be, many participants at the Singapore CSCAP Study Group and I believe that disarmament remains a central tenet of NPT. Although there is disagreement over the time frame of disarmament, many believe nonproliferation efforts will be little helped by taking disarmament off the table. A commitment to disarmament appears to be a significant factor in tackling the demand-side of the nonproliferation equation.

The proliferation of proliferation problems does not necessarily necessitate the threat or use of force, nor does it entail sitting back and hoping the matter resolves itself. Coherence and coordination is required from member states of the NPT to exert new forms of pressure on proliferators like Iran and North Korea. The burden, however, lies more heavily on the nuclear weapons states to take the lead and tackle the issues of proliferation. There have been efforts to do so through inventive strategies like the Proliferation Security Initiative and the G8 Global Partnership against the Spread of Weapons and Materials of Mass Destruction. Although more can be done in the area of political will, leadership, and cooperation among major powers, it would be fair to conclude that all is not yet lost in the realm of global nonproliferation.

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<sup>2</sup> “Revealed: UK develops secret nuclear warhead,” Michael Smith, The Sunday Times, March 12, 2006. Available at <http://www.timesonline.co.uk/article/0,,2087-2081800,00.html>.



# Make ASEAN a Player in the Fight Against WMD

By Shirley Flores

Much has been said about efforts to stop the proliferation of weapons of mass destruction (WMD). Discussion has emphasized the ineffectiveness of existing nonproliferation regimes that continue to be influenced by national interests, the possibility that terrorist groups will gain access to nuclear technology, and the lack of political will among concerned parties. While countries agree that the issue is of global concern, there is no concerted effort involving the active participation of all states that will send a clear signal to the rest of the international community that governments mean business about WMD nonproliferation. Unfortunately, recent initiatives to complement the Non-Proliferation Treaty (NPT) and UN Security Council Resolution 1540 have done more damage by causing divisiveness – something that the world cannot afford.

A collective effort cannot be achieved without credible leadership. While the United Nations is at the forefront of WMD-related activities, the United States has been the leader in nonproliferation policy. It cannot be denied that the U.S. role has caused a number of countries (especially in Asia) to stay away from new initiatives. This attitude – “if-it’s-not-under-the-UN-count-us-out” – will, if it has not already, cause serious divisions. In Asia where terrorist training and activities continue to take place, being divided over an issue as big, important, and urgent as nonproliferation does not help.

In Southeast Asia, for example, the Philippines together with Singapore and Thailand are the only “subscribing” states to the U.S.-led Proliferation Security Initiative (PSI). This initiative, adopted by 11 states in September 2003, calls for measures to interdict the transfer of WMD to nonstate actors through information sharing, inspection of ships and aircraft by member states, among others. Since these procedures are limited to PSI member states, the initiative remains restricted; support from more countries is needed. The Bush administration has been active in selling the PSI project in Asia, but it has only managed to get three of the 10 ASEAN members to join. Countries such as Indonesia, Malaysia, and Brunei opt for independence and nonalignment and are more careful in joining initiatives that are not under the leadership of the UN when it comes to nonproliferation; others – Vietnam, Cambodia, and Laos - stay on the sideline and adopt a wait-and-see attitude.

ASEAN support for the PSI is crucial as the group could play a leading role in fighting WMD proliferation in Asia. ASEAN is actively pursuing the East Asia Community project, which will include other nuclear powers such as China, Japan, and India as members. Getting the 16 East Asian countries to back the PSI will be a daunting task. As Francis Fukuyama argued in, “America at the Crossroads: Democracy, Power and the Neoconservative Policy,” “It is not sufficient that Americans believe in their own good intentions; non-Americans must be convinced of them as well.”

## **The Philippine Role**

The Philippines does not have the means or the capability to produce WMD. This does not mean that Manila is not concerned about or does not support efforts to address WMD proliferation. As a national policy, the Philippines strongly supports disarmament and nonproliferation. It has appeared in the International Court of Justice (ICJ) to argue that the threat or use of nuclear weapons is illegal. It also took the lead in proposing that the ICJ include the threat or use of nuclear weapons as a crime against humanity or a war crime.

Moreover, the Philippines has committed itself to preventing any form for support to nonstate actors that seek WMD and their means of delivery. It is a signatory to the Comprehensive Nuclear Test Ban Treaty (1996), the Convention on Physical Protection of Nuclear Material (1980), the Biological Weapons Convention (1972), and the Chemical Weapons Convention (1993). It has joined the International Atomic Energy Agency (1998) and the Hague Code of Conduct (2002) where it is the current chairman. It subscribed to the Treaty on Southeast Asia Nuclear Weapons-Free Zone in 2005 and is a party to the UN Convention on Transnational Organized Crime, and has signed and ratified all 12 international instruments against terrorism.

As mentioned, the Philippines is a subscribing state to the PSI, although it has yet to evaluate its participation in the Wassenaar Arrangement, the Australia Group, the Zangger Committee, the Nuclear Suppliers Group, and the Missile Technology Control Regime. It has not enacted a definitive law against terrorism.

The relevant measures undertaken, however, include a National Plan of Action outlining 14 pillars of policy and action against terrorism. The plan assigns roles and defines the responsibilities not only of concerned government agencies but nongovernment organizations (NGOs) and civil society as well. It has been expanded to a 16-Point Counter-Terrorism Program to include measures for accountability of local and national governments in ridding the country of terrorists and coddlers. Through administrative and executive orders, the government has also institutionalized the Counter-Terrorism Intelligence Center, tasked to provide overall coordination in the conduct of intelligence operations, and created the Office of Transportation Security to have a singular and unilateral authority to enforce civil aviation security programs.

The Philippines is also working on the establishment of a comprehensive Philippine WMD Export Control Regime and plans to have this in place by 2006.

Unfortunately, awareness of WMD, as in most Asian countries, remains a problem. In the media, coverage of domestic issues dominates newspapers, radio and television. With a big portion of the population busy making ends meet, WMD and nonproliferation remain the sole concern of the government. The media has a role to play in increasing awareness. The government realizes that dialogue with industry is also key and efforts are being initiated by the National Authority for WMD Inspection and Control toward this end. By the end of March it will hold an awareness seminar for business groups and players in the chemical industry, with the assistance of the U.S. government and the Organization for the Prohibition of Chemical Weapons.

Still, there is much to be done.

### **The Philippines in ASEAN and East Asia**

As one of the more active members in ASEAN, the Philippines can actively push for nonproliferation initiatives in the region. Regardless of suspicions over the U.S. role or suspicions about some Southeast Asian countries' support for U.S.-led activities, the region's position on WMD nonproliferation is more or less consistent.

As former Indonesian Foreign Minister Adam Malik put it: "Southeast Asia is a region in which the presence and interests of most major powers converge... (exerting a) dominant influence on the countries in the region... (T)he smaller nations of the region have no hope of ever making any impact on this pattern of dominant influence on the big powers, unless they act collectively and until they develop the capacity to forge among themselves an area of internal cohesion, stability, and common purpose."

Southeast Asia must take concrete initiatives given the threats that WMD and terrorism pose in Asia. ASEAN initiatives for nonproliferation of WMD have been largely limited to the usual "We support" statements. It is time to translate these words into clear undertakings. The Southeast Asian Nuclear Weapon Free Zone (SEANWFZ), enforced by the 10 ASEAN countries in 1997, needs to be strengthened with or without the nuclear weapon states (NWS) on board.

The SEANWFZ obliges members not to develop, manufacture or otherwise acquire, possess or have control over nuclear weapons; station nuclear weapons; or test or use nuclear weapons anywhere inside or outside the treaty zone. It likewise prohibits members from taking any action to assist or encourage the manufacture or acquisition of any nuclear explosive device by any state, to provide source or special fissionable materials or equipment to any non-nuclear weapon state (NNWS), or any NWS unless subject to safeguards agreements with the International Atomic Energy Agency.

To date, not one of the NWS has signed the protocols, largely due to U.S. and French objections regarding the unequivocal nature of security assurances and over the definitions of territory. China, however, has expressed it is ready to sign the treaty.

ASEAN can play a role if it aims to become a leader in security and political cooperation in Asia. The creation of the East Asia Summit (EAS) in December 2005 could provide a venue for discussions of WMD, as its membership includes other nuclear powers. The EAS has ASEAN, Japan, China, South Korea, India, New Zealand, and Australia as members. Russia has signaled interest to join as well.

While the role of the EAS is still not clear, it focused discussions during its inaugural Summit in Kuala Lumpur on political undertakings. These include support for a new round of talks for the denuclearization of the Korean Peninsula and for joint cooperation to combat international terrorism. The SEANWFZ may be used by the EAS as a takeoff point, especially after China announced plans to sign the pact with its Southeast Asian neighbors. Japan and India will hopefully follow.

Finally, the Philippines as host of this year's ASEAN and East Asia Summits could use these venues to push for specific collective projects to show that the group supports efforts to halt the proliferation of WMD, at least in its own backyard.



## Two Levels of Threats to the Nonproliferation Order and Poland's Response

By Lukasz Kulesa

The “global nonproliferation order” denotes a vast and interconnected network of formal and informal international regimes and policies of individual states, aimed at preventing the spread and use of weapons of mass destruction (WMD). Putting it most simply, the greatest threat to the present nonproliferation order would be any use of WMD by a state or a state-controlled terrorist organization. The possibilities range from a combat use of tactical nuclear weapons (an option apparently contemplated by the U.S. with regards to Iran's nuclear facilities) to an explosion of a “dirty bomb” constructed by terrorists using radiological material provided by a sponsor state. Among the consequences of any of these scenarios would be the collapse of the existing nonproliferation order, possibly followed by attempts to create a new one.

Below this basic, “existential” threat to the nonproliferation order, there are a number of factors that have recently put the system under growing strain. For analytical reasons, I would distinguish between two levels of threats – operational and political. Within the former, attention should be focused on the functioning of nonproliferation regimes; within the latter – attention needs to be fixed on states' attitudes toward nonproliferation. This distinction is fundamental in identifying ways to strengthen the global nonproliferation order. For operational problems, technical “fixes” of specific regimes can be developed, but political challenges, as a rule, require political solutions.

At the operational level, there are several problems connected with the technical side of nonproliferation activities and regimes. To mention just a few:

With regards to nuclear weapons, there is a growing sense of a crisis regarding the system based on the Treaty on the Non- Proliferation of Nuclear Weapons (NPT). First, it is obvious to many analysts that the Article 6 commitments of the nuclear weapons states (NWS) to “pursue negotiations” on the cessation of the nuclear arms race would never lead to complete disarmament. However, it is equally clear that many states still regard nuclear disarmament as an essential part of the Treaty. As a result, discussions about the ultimate goal of the NPT often preclude practical cooperation on contemporary problems. Second, the example of Iran shows that the right to use nuclear energy for peaceful purposes can be stretched to its limits, to allow states to reach the nuclear weapon threshold and be ready to cross it in no time, if deemed necessary. It is a paradox that in this case (as well as in the case of North Korea's withdrawal), the letter of the NPT is not violated, even though its spirit certainly is. To restore faith in the NPT, there is an urgent need to strengthen the verification system, for example, by decisions of more member states to adopt the Additional Protocol on Safeguards.

The operational record of nonproliferation regimes dealing with chemical and biological weapons is also uneven. The Organization for the Prohibition of Chemical Weapons oversees the destruction of those stockpiles, but despite its successes progress in some cases (especially Russia) is painfully slow. Some important actors stay outside the Chemical Weapons Convention, including Israel, North Korea and Syria. The Biological and Toxin Weapons

Convention, deemed “dead on arrival” in the 1970s because the Soviet Union signed it and at the same time made a decision to *expand* the range of its biological weapons program, still has no objective verification mechanisms. There is little possibility that the 2006 Review Conference will yield breakthrough decisions to strengthen this regime.

The second level of conceptualizing threats to the nonproliferation order is connected with the larger context of nonproliferation policy. It is often forgotten that the operational side of specific nonproliferation regimes cannot be separated from the political situation and interests of participating states. In a period of high international tension, it is naïve to assume that nonproliferation remains a separate realm where countries cooperate for the common good. Interstate conflicts, regional crises, ideological differences and controversies between the developed and developing countries all influence the global nonproliferation order.

Terrorist attacks by the new breed of transnational organization – al-Qaeda, especially after Sept. 11 – highlighted the urgent need to make sure that the terrorists cannot get access to WMD. However, the possibility that nonstate entities (terrorist groups, criminal networks) would be able to produce or acquire WMD is not as likely as many analysts claim, and nothing warrants the presumption that any state is willing to hand WMD over to terrorists. Nevertheless, the United States and many of its allies use the example of a terrorist WMD act as the main factor influencing their nonproliferation policies. They claim that the urgency of this threat makes it necessary to move beyond existing multinational regimes. One consequence is a willingness to use coercive measures to counter proliferation, with the use of force against Iraq as an example. Another consequence is a new, proactive approach to nonproliferation, which has produced valuable ideas such as the Proliferation Security Initiative (PSI) or the G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction.

At the same time, however, many states consider covert or overt acquisition of WMD, especially nuclear weapons, as a strategic imperative. The basic lesson they draw from post-Cold War history is that the possession of nuclear weapons assures the survival of the political regime and provides the ultimate shield against outside intervention. Even though the examples of India, Pakistan, and North Korea show that a country cannot reap substantial benefits from the possession of nuclear weapons, the example of Saddam Hussein’s Iraq demonstrates that for the opponents of the U.S., *not* possessing WMD can be deadly.

As a result, two political tendencies clash: aggressive U.S.-led counterproliferation actions fueled by the threat of terrorists and unpredictable “rogue states” and aggressive proliferation activities by a group of determined countries and their leaders. Iraq shows that this clash may lead to military confrontation, but the lesson of Muammar Gaddafi’s Libya and the dismantling of Libyan WMD program shows that peaceful, negotiated solutions are also feasible.

It is important to make a distinction between the two levels of threats to the global nonproliferation order when reflecting on the position of a country like Poland vis-à-vis nonproliferation problems. Poland may be a good example of a state that believes that in order to achieve an effective global nonproliferation system, action is needed both to strengthen existing regimes, and to come up with innovative approaches to fight WMD proliferation in the 21<sup>st</sup> century. Poland’s active involvement in nonproliferation can be traced back to the traumatic

experience of World War II and, later, the fear of becoming a nuclear battlefield in the event of a Cold War conflict between the Soviet camp and NATO in Europe. It is worth noting that the first proposal to create a nuclear-weapons-free zone was put forward by the Polish Minister for Foreign Affairs Adam Rapacki in 1958. The Rapacki Plan for Central Europe, although never implemented, became a model for nuclear-weapons-free zones in different regions of the world.

After the end of the Cold War, Poland decided to integrate within Western political structures and joined NATO (in 1999) and the European Union (in 2004). In its foreign and security policy, Poland still attaches much weight to nonproliferation. It is a party to all major WMD-related treaties, and a member of the nonproliferation and export control regimes, including the Organization for the Prohibition of Chemical Weapons, the Nuclear Suppliers Group, the Wassenaar Agreement, the Australia Committee, the Zangger Committee and the Missile Technology Control Regime. Much importance is attached to the national export control system, which is now consistent with the EU regulations. It is assumed that only with an effective national system in place can a country credibly promote and support foreign policy initiatives on nonproliferation.

Recognizing the political context of nonproliferation, the Polish authorities see the need for the international community to respond effectively to new challenges and crises. Poland supported the U.S. during the crisis over Iraq in 2002-2003 and took part in the military intervention in 2003, relying on the intelligence data on the WMD threat provided by the U.S. Poland actively backed the negotiations on Iran's nuclear program conducted by the UK, France and Germany (the E3 group), and has repeatedly called for a diplomatic solution to the nuclear dispute – also in direct contact and consultations with the Islamic Republic's officials.

Of special significance to Poland is the Proliferation Security Initiative, announced by President Bush in 2003, during his speech in Cracow. It is a recognition of the necessity to act effectively in a new political situation (increased activity by both state- and nonstate-proliferators) not through violating, but by supplementing the existing nonproliferation system through practical cooperation of like-minded states. Poland is one of the original core members of the Cracow Initiative, and remains committed to advancing its aims through active cooperation, including hosting meetings (experts' conferences as well as high-level political events) and organizing interdiction exercises.

Each country has a role in shaping the global nonproliferation order. What counts is not only its size or resources, but also political will. In fact, this is the crucial factor in translating any state's publicly declared commitment to nonproliferation into concrete actions.



# Implications of Diverging Assessments of Nuclear North Korea

By Julia Joo-A Lee

One of the main problems of the global nonproliferation regime is that many countries do not agree on the threats to international security. With this, the global nonproliferation regime may face more difficulties in negotiating and taking coherent and consistent measures in the future. As the most destabilizing crisis in Northeast Asia, the nuclear threat posed by North Korea is a good example of this problem because the United States and South Korea have differing threat assessments. Different estimates of the number of North Korean nuclear weapons do not seem to be a very important issue; numbers do not matter in the sense that North Korea can be a nuclear power even if it has manufactured only one nuclear weapon. Nevertheless, numbers can be dominant indicators that may change perceptions of decision makers because threat assessment by intelligence analysis feeds back into the policymaking process. Moreover, divergent threat assessments may undermine the cooperation between the U.S. and South Korea, which plays a significant role in resolving the nuclear issue and promoting the global nonproliferation regime. Therefore, this paper examines how policy objectives as independent variables affect threat assessment in the context of the U.S.-ROK-DPRK triangle.

In spite of cooperative efforts by the U.S. and South Korean governments to deter North Korea from having a nuclear weapons program, the 1994 Agreed Framework broke down in October 2002. At that time, U.S. officials announced that North Korean officials had acknowledged having a covert uranium-enrichment program during a meeting with a U.S. delegation, a claim that Pyongyang has publicly denied. After diplomatic tensions between the two countries escalated, North Korea ejected IAEA inspectors in December 2002. Whether Pyongyang actually possessed such weapons is unknown, although U.S. officials said that North Korea has programs to produce both plutonium and highly enriched uranium for use as fissile material in nuclear weapons. For this reason, it is notable that the North Korean Foreign Ministry announced that Pyongyang has produced nuclear weapons. The Foreign Ministry statement is Pyongyang's most definitive public comment regarding its nuclear arsenal. A North Korean official told a U.S. delegation during an April 2003 meeting in Beijing that Pyongyang possesses nuclear weapons, the first time North Korea made such a claim.<sup>1</sup>

## **Divergent Assessments of North Korea's Nuclear Capability**

Given North Korea's claim, the intelligence agencies of South Korea and the U.S. have different estimates of how many nuclear weapons North Korea has produced. It should be noted that there is significant uncertainty regarding how much plutonium the North may possess, and it is also unclear if the North has produced highly enriched uranium (HEU) for nuclear weapons.

South Korea's National Intelligence Service (NIS) reported to the National Assembly on Feb. 16, 2005 that North Korea has separated plutonium successfully, but that the North has not

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<sup>1</sup> Kerr, Paul. "Examining North Korea's Nuclear Claim," Arms Control Association, updated March 2005, cited 12 May 2005, URL: [http://www.armscontrol.org/act/2005\\_03/NA\\_NorthKorea.asp](http://www.armscontrol.org/act/2005_03/NA_NorthKorea.asp).

yet manufactured weapons from fissile material. South Korean intelligence officials also said that “even if North Korea has developed nuclear weapons, it would be one or two old-style devices that can be delivered by plane.” This indicates that the South Korean intelligence agencies doubted that the North had the ability to deliver nuclear weapons. This argument is strengthened by the following statement: “In order to put a nuclear bomb on a missile, they should make it weigh less than 1,100 pounds, but we don’t think North Korea has acquired such technology.” If true, it might be impossible for North Korea to deliver nuclear weapons by missile; North Korea could, however, use conventional ways as the U.S. did in World War II. In addition, South Korea’s vice foreign minister, Choi Young Jin, recently claimed that South Korea estimates that the North has enough plutonium to produce two or three nuclear weapons.

However, the U.S. estimates North Korea could have at least eight nuclear weapons, even though those estimates only refer to the ability to make nuclear weapons. Over the past 15 years, North Korea is believed to have produced and separated enough plutonium from a single nuclear reactor to possess up to 10 nuclear weapons, depending on how much material it would require for each nuclear weapon.<sup>2</sup> Intelligence officials also have broadly concluded that “a separate North Korean uranium-enrichment program will be operational by 2007, producing enough material for as many as six additional weapons a year.”

CIA Director Porter Goss has said that North Korea has a greater capability than one or two weapons. This implies that the CIA is more pessimistic about the North Korean arsenal than are ROK intelligence agencies. Defense Intelligence Agency (DIA) analysts were reported to believe that North Korea may already have produced as many as 12 to 15 nuclear weapons, as of February 2005. This estimate implies that by the end of 2004 North Korea had produced somewhere between 4 and 8 uranium bombs on top of the 7 to 8 plutonium bombs already on hand. The DIA estimate was at the high end of an intelligence community-wide assessment of North Korea’s nuclear arsenal. The Department of Energy’s analysis put North Korea’s stockpile somewhere between, which could be consistent with roughly 7 or 8 plutonium bombs that could be produced from all existing plutonium stocks, with no uranium bombs. Thus, even the U.S. intelligence community cannot agree upon a total number of North Korean nuclear weapons, and the question of deliverability remains. Nevertheless, it is evident that the U.S. and South Korea have different assessments.

### **Different Policy Objectives and Priorities between the U.S. and South Korea**

The South Korean government’s primary objective is to avoid war on the Korean Peninsula, and to deter North Korea – not by antagonizing, but by appeasing. As Professor Hong Kyudok noted in our CSCAP meeting, for South Koreans, engagement is “the only viable option to move Pyongyang forward,” and this perception is different from the U.S. call for regime change. Therefore, the South Korean threat assessment puts more importance on intentions rather than the capabilities of North Korea.<sup>3</sup> Because the alleged nuclear weapons have not been tested nor confirmed, Pyongyang’s intentions are open to interpretation. Accordingly, it is

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<sup>2</sup> Wit, Joel S., Wolfsthal, Jon, Choong-suk, Oh, *The Six Party Talks and Beyond: Cooperative Threat Reduction and North Korea* (Washington, DC. Center for Strategic and International Studies, 2005)

<sup>3</sup> Lee, Chung Min. “Reassessing the ROK-U.S. alliance: transformation challenges and the consequences of South Korea’s Choices,” *Australian Journal of International Affairs*, (Vol. 57, No. 2, 2003), p. 283

possible to say that the Roh administration may have tried to minimize or to underestimate the North Korean threat by considering the intention of North Korea as neither threatening nor aggressive.

For some, capability itself is considered to be a sign of aggressive intentions. The U.S. threat assessment is more focused on North Korea's ability to deliver weapons to the U.S. mainland and the risk of nuclear proliferation to terrorist groups. Also, the current U.S. administration tends to assume the worst while the Roh administration takes more of a pragmatic approach to maintain the legitimacy of its policies. This possible overestimation of the threat caused by the U.S. psychology after the Sept. 11 attacks cannot be separated from the Bush administration's strategic policy of building up the missile defense system in East Asia.

### **Conclusion and Alternatives**

Leaders choose indicators that they expect will confirm that their policy is successful; as dominant indicators' values change, so do decision makers' beliefs about the likely outcomes of their policies.<sup>4</sup> Thus, I argue that, as a decisive independent variable, diverging policy objectives will shape and constrain threat assessments by intelligence analyses. This also means that if two policy preferences are similar and compatible, the probability of having different threat assessments will be lower. In order to make this possible, the U.S. and South Korea should;

1. carefully coordinate assessments of North Korean nuclear capability. This must be resolved if there is to be a final solution to the nuclear crisis. Also, consensus-building among Northeast Asian countries will help avoid the impression that measures taken by the U.S. are unilateral and without cooperation.
2. take into account North Korea's sensitivity to Bush administration remarks. North Koreans have repeatedly said that they are concerned about "U.S. hostility" and they have made clear that they do not have any bad feelings toward the U.S. Therefore, provocative rhetoric like "criminal regime" should be avoided.

In so doing, the two countries will better prevent possible political disagreements and will be able to enhance their alliance and achieve the ultimate goals of the global nonproliferation regime.

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<sup>4</sup> Gartner, Scott Sigmund. Strategic Assessment in War (New Haven: Yale University Press, 1997), p. 45





# Singapore's Role in Global Nonproliferation

By Adrienne Li-Tan

The International Atomic Energy Agency (IAEA) was created some years after President Dwight D. Eisenhower delivered his “Atoms for Peace” address to the UN General Assembly. With the Nuclear Nonproliferation Treaty (NPT) of 1968, the IAEA also “gained authority for policing the nuclear activities of member countries to ensure that those without nuclear weapons did not acquire them.”<sup>1</sup> The treaty was a significant step toward the reduction of nuclear proliferation and is a representation of a worldwide urge to prevent the spread of nuclear weapons. The treaty bans all members from having nuclear weapons with the exception of the United Kingdom, China, France, Russia and the United States. In turn, these five states are expected to eventually eliminate their atomic arsenals.<sup>2</sup> For Singapore, the NPT is one of the best guarantees of security as it is the only global treaty providing a system of integrated safeguards against proliferation.<sup>3</sup> Despite being a young and physically small state, Singapore's role in contributing to nonproliferation is by no means minimal. This paper seeks to explain the problems the NPT faces and what Singapore can do to help fix them.

There are, unfortunately, a number of loopholes in the NPT. These include the failure of states to disclose experiments with plutonium separation and uranium enrichment to IAEA inspectors. Furthermore, since the separation of plutonium “does not violate the NPT if done for peaceful purposes under IAEA inspection,” a state may not fall under the scrutiny of IAEA inspectors. There are already a number of developed countries conducting such activities – one of them being Japan. This indicates that such states are in essence, capable of using nuclear power for more devastating ambitions. A third loophole is the fact that there are still nonparties to the NPT, not bound by the treaty's prohibition against assisting non-nuclear-weapon states in the acquisition of nuclear weapons. More importantly, the U.S. is not setting a good precedent by failing to comply with some of the NPT commitments. George Bunn notes that “the Bush administration has undertaken efforts to create new types of nuclear weapons that might well require new testing.”<sup>4</sup> It is evident that the NPT requires upgrades to respond to the new threats posed by weapons of mass destruction (WMD).

It is becoming more difficult for the NPT to serve its initial purpose even though it was designed to simply prevent the spread of nuclear weapons. The decades after the NPT was concluded have revealed changes in the nature of threat posed by WMD. To counter this new threat, the Proliferation Security Initiative (PSI) was launched a couple of years after the Sept. 11, 2001 terrorist attacks on the U.S. “PSI combines the aggressive use of existing national and international legal authorities with better intelligence sharing and **multilateral coordination** in an effort to **interdict** the transport of nuclear, chemical, and biological weapons, delivery

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<sup>1</sup> George Bunn, *The Nuclear Nonproliferation Treaty: History and Current Problems* (December 2003 [cited 13 March 2006]); available at [http://www.armscontrol.org/act/2003\\_12/Bunn.asp](http://www.armscontrol.org/act/2003_12/Bunn.asp).

<sup>2</sup> *Ibid.* (cited).

<sup>3</sup> Vanu Gopala Menon, “Statement by Ambassador Vanu Gopala Menon, Permanent Representative of Singapore to the United Nations” (paper presented at the United Nations General Assembly (59th Session): General Debate on the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, 5 May 2005).

<sup>4</sup> Bunn, *op cit.*

mechanisms, and related components.”<sup>5</sup> Granted that threats are now fast becoming borderless as well, the PSI seems to be one of few attempts to plug these gaps in the NPT. Chemical and biological weapons can now be easily created and attained, albeit in a less refined fashion. In fact, “[e]ven well-organized subnational organizations and terrorist groups, given adequate time and resources, could possibly produce a basic nuclear device.”<sup>6</sup> While one would have been referring to nuclear warheads decades ago, fertilizers and household chemical substances can be life threatening if employed to achieve devastating goals. It is thus very important to constantly and methodically look into upgrading, adding on to, and improving the measures we have, and to analyze the changed nature of the WMD threat.

The world is not only becoming borderless, but “smaller” too. States that may not possess a well-developed defense and/or research industry are beginning to take interest in nuclear energy and power for their own use. Many under-developed countries also consider nuclear power and weapons in order to enlarge their stake in the international arena. Thus, with the increase in insurgent activities within Asia, it is more important for states in the region to be more vigilant and cooperate closely for their security.

In this evolving security environment, Singapore has a role to play and an opportunity to contribute to its own security and that of the region. Singapore’s assets are its relations with larger powers as well as its technological edge and research into the defense industry. It also benefits from having a unique community, which in certain instances may pose as a threat.

Balancing good relations with large powers has been difficult for Singapore, especially vis-à-vis its neighbors. This is especially true in regard to Singapore’s relations with the U.S., particularly after Sept. 11. Diplomacy and building trust allow for better and stronger ties between states. This should be the emphasis when dealing with borderless threats that could come from any corner of the globe. Such ties ensure vigilance and cooperation, and are best able to ensure that security is not compromised.

One of the best examples of Singapore’s role in the fight against WMD proliferation is its hosting and participation in DEEP SABRE in 2005. The exercise was a multilateral PSI-related activity aimed at improving global capability to intercept WMD shipments by terrorist groups or rogue states.<sup>7</sup> Singapore has been successful in intercepting shipments of items that could have contributed to the production of chemical weapons or missiles as a result of vigilance in policing the sea lines of communication (SLOCs) that run through its waters.<sup>8</sup> By working with countries through the exercise, Singapore can improve its effectiveness in the interception of WMD shipments that pass through its ports. In 2006, PACIFIC PROTECTOR, another PSI initiative, will be hosted by Australia. Apart from Singapore, participants in the exercise include Japan, the U.S., Britain, New Zealand and Australia. These exercises are instrumental in providing

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<sup>5</sup> Joseph Jofi, *The Proliferation Security Initiative: Can Interdiction Stop Proliferation?* (June 2004 [cited 15 March 2006]); available from [http://www.armscontrol.org/act/2004\\_06/Joseph.asp](http://www.armscontrol.org/act/2004_06/Joseph.asp). Emphasis mine.

<sup>6</sup> Joseph Cirincione, Jon B. Wolfsthal, and Miriam Rajkumar, *Deadly Arsenals: Tracking Weapons of Mass Destruction* (Washington DC, USA: Carnegie Endowment for International Peace, 2002), 35.

<sup>7</sup> Robert Joseph, *State’s Joseph Urges “Diplomacy of Action” against Amd Threat* (2005 [cited 21 March 2006]); available from <http://usinfo.state.gov/eap/Archive/2005/Aug/18-198921.html>.

<sup>8</sup> S Jayakumar, *Our Stand on Iraq and Whether We Are/Were Too Pro-Us* (11 March 2004 - Parliament) (2004 [cited 22 March 2006]); available from [http://www.mfa.gov.sg/internet/press/middleeast/iraq\\_press.htm](http://www.mfa.gov.sg/internet/press/middleeast/iraq_press.htm).

opportunities for countries to rehearse the use of state of the art technology in intercepting transportation of WMD materials. They are also vital in the global effort to clamp down on WMD proliferation. Singapore's continued participation in such activities is an important contribution to the nonproliferation regime.

Singapore should present itself as an example to developing states in the region. As a small island-state with bare resources, Singapore should use its story to motivate the region's developing states and demonstrate that possession of WMD in any form would not, in any way, enhance international status. Therefore, Singapore should assist developing states in the region and cooperate extensively with them. This would foster better relations and improve the security situation.

In addition, Singapore should continue to engage its neighbors to promote security in the Malacca Straits. In 2005, the "Eyes in the Sky" (EIS) initiative was launched with Thailand in addition to the littoral states of Singapore, Malaysia, and Indonesia. This initiative is a significant step toward a combined effort to create a more secure environment in the Malacca Straits. Such initiatives should be emulated to provide a better security environment and cooperative policing of the vital Straits.

Furthermore, Singapore's technological edge would also be useful in helping to counter proliferation. This includes continuous research into the defense industry, which would help improve defense capabilities for the state and for the region. Research and development into state-of-art systems that could contribute to the early detection of chemical, biological, and radiological (CBR) materials could alleviate policing of the SLOCs.

Finally, Singapore has a unique population. It is multicultural and like every immigrant society it needs time to forge a unique identity. The later generations have not experienced the racial riots and violence their parents did, and many have been brought up without the tinted lenses of racial or religious bias. This generation has better opportunities to interact and understand persons of different races and religions. This, if well managed, can facilitate the emergence of a new group of persons who will be able to accept and better understand differences, easing cooperation between countries. Many wars have been fought as a result of the inability to understand and weigh differences. As borderless insurgents conduct violent acts upon the state, it is becoming more important for states to cooperate on policing across the borders. Suspicions would decrease with opportunities, and the possibility of stronger cooperation between nations would mean better security for the region and beyond.

The NPT was designed to resolve the problems of WMD and possession of nuclear arsenals. The agreement had a number of problems, and a number of improvements have been made to it. But threats are evolving, and we must research ways to improve the treaty. In fact, WMD threats now encompass chemical, biological and radiological weapons, in addition to nuclear arsenals. Singapore's role in contributing to the nonproliferation order is multi-faceted. Even though the state is young and physically small, its diplomacy has been instrumental in contributing to its commitment to the NPT. Singapore has been taking a number of steps to contribute to the nonproliferation order, and these should be continued and further enhanced to help fight the spread of CBR WMD.

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## Keep the Nuclear Taboo Alive

By Shahrman Lockman<sup>1</sup>

As I write, I have on my desk a reprint of a photograph taken in Hiroshima on Aug. 6th, 1945. It was taken by Yoshito Matsushige, a newspaper photographer. On the first day of what was later to be called “The Atomic Age,” Matsushige walked around Hiroshima with his camera and two rolls of film. The scenes he saw were ones of utter devastation. After 10 hours, it was too much for him. He couldn’t bring himself to take any photos after the seventh; only five came out when he tried to develop them in a radiated stream (no dark rooms survived the blast). Matsushige’s photos are the only ones we have of Hiroshima on that fateful day.

Unlike most of his contemporaries, Matsushige lived to a ripe old age. He died last year, aged 92. But his photos should serve as a reminder for those who haven’t seen for ourselves the destructiveness of a nuclear explosion. So should the eyewitness accounts of those who, through sheer luck and determination, survived Hiroshima or Nagasaki to tell the tale. It won’t be long before the last of them leaves us. And with their passing, it rests on us to keep the nuclear taboo alive.

The death of the nuclear taboo would, without a doubt, pose the greatest threat to the global nonproliferation order. The world should see nuclear bombs as what they really are: a terrible scourge of mankind and a dangerous way to delude people into thinking that they are safe. It is important that nations be convinced that nuclear weapons do not buy them membership into a prestigious club. On the contrary, those who pursue and possess nuclear weapons should be unequivocally denounced as pariah states.

Unfortunately, the stigma associated with nuclear weapons is waning. During the 1964 race for the White House, the American public saw a television advertisement intended to scare – and it did. The advertisement showed a little girl plucking the petals of a daisy. As she counted the petals, a man’s voice, which got louder and louder, counted backward. The man finished the countdown as the girl reached 10. A picture of a nuclear explosion followed, and as a mushroom cloud billowed, another man’s voice said: “These are the stakes, to make a world in which all of God’s children can live or go into the dark. We must either love each other, or we must die.” Those words were spoken by then President Lyndon Johnson and they were an attack against Barry Goldwater, the Republican challenger who had urged the development of low-yield atomic weapons for the war in Vietnam. Such was the nuclear stigma that, even though aired only once, the advertisement succeeded in casting Goldwater as a hot-headed extremist, a danger to his own people if elected to the White House. President Johnson won the election – by a landslide no less.

Goldwater may have been trounced in ‘64, but his idea of a new family of nuclear weapons lives to this day. In the last couple of years, the Bush administration has repeatedly asked Congress for funds to develop “mini nukes” or “bunker busters.” Recently, the National Nuclear Security Administration, a part of the Department of Energy, announced plans to modernize U.S. nuclear laboratories and factories, something it had not done since 1989. The

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<sup>1</sup> The views expressed are personal and do not represent those of ISIS Malaysia.

Reliable Replacement Warhead program is to be broadened to include not just making replacements for existing stockpiles, but also the development of new bomb designs. Meanwhile, France has reportedly improved the range and accuracy of its nuclear missiles. Britain is seriously considering the replacement of its four Trident submarines, which carry nuclear weapons.

These developments send a dangerous message: “we do not intend to give up our nukes; they shall remain a mainstay of our military power.” It tells the world that nuclear weapons are not abhorrent in themselves, that they are a legitimate way to fend off enemies.

It is also in direct breach of an important obligation under the nuclear Non-Proliferation Treaty (NPT). In return for renouncing their rights to nuclear weapons, the non-nuclear-weapon states (NNWS) were promised two things: first, that the nuclear-weapon states (NWS) – America, Britain, China, France, and the Soviet Union – would provide the NNWS with access to civilian nuclear technology; and second, under Article VI, that the NWS will move toward the complete disarmament of their nuclear arsenals. Complete. Zero.

But time and time again, the NWS have failed us. None seem to have plans to fulfil their Article VI obligations. In 1995, the NPT Review Conference (RevCon) decided to extend the Treaty indefinitely. That should be a good thing, right? Perhaps. But the indefinite extension took away whatever leverage the NNWS had over the NWS to push for disarmament. Admittedly, the 1995 RevCon saw pledges by the NWS to take steps to disarm. And so did the 2000 RevCon, where the “13 steps,” a program for complete nuclear disarmament, was agreed upon. But by the time preparatory meetings were held for the 2005 Review Conference, it was clear that these promises weren’t taken seriously. In fact, they had effectively been renounced. The 2005 RevCon saw an attempt by the U.S. to block any mention of previous disarmament commitments. After 10 days, a compromise was reached on a watered-down statement: that the 2005 RevCon “will be conducted in the light of the decisions and the resolutions of previous Conferences”. The NNWS felt betrayed.

All attempts to stem the proliferation of nuclear weapons will fail unless the NWS realize this fact: the possession of these weapons by any one state will act as a stimulus for others to acquire them. The present divide between nuclear “haves” and “have-nots” is inherently unstable. This arrangement breeds cynicism and contempt. It robs the nonproliferation order of a sorely needed element – legitimacy. It would be impossible to deal with proliferators, whether they are bound by the NPT or not, if nuclear weapons are given such undeserved currency by the NWS.

As a small country, Malaysia is unable to impose anything on the NWS. But it can continue to press for disarmament together with other like-minded states, such as those of the Non-Aligned Movement (NAM). Malaysia has faithfully kept its part of the NPT bargain, and is in the process of ratifying the Additional Protocols. This, I believe, makes it eminently reasonable for it to keep reminding the NWS of their unfulfilled promises. It doesn’t make us popular, but some things are just that important.

# Dual-Use Technology and Proliferation Challenges

By Heidi Mahy

Some argue that weapons of mass destruction (WMD) are the greatest threat to the civilized world. However, the path to weapons development is not always long or complicated. David Bergman, former chairman of the Israeli Atomic Energy Commission noted that “by developing atomic energy for peaceful uses, you reach the nuclear weapons option. There are not two atomic energies.” The dual-use nature of knowledge and technologies in the nuclear, chemical, and biological fields creates the opportunity for the diversion and misuse of these capabilities. Today’s nonproliferation regimes were established in an attempt to prevent the misapplication of peaceful technologies for weapons purposes. Balancing the demands of economic development and unconstrained access to technology, while preventing the misuse of these technologies, has always been the greatest challenge for these regimes.

## **The role of “intent” in technology development and WMD acquisition**

Countries seek to develop WMD for a multitude of reasons: power, prestige, and domestic security. However, countries acquire sensitive dual-use technologies for a variety of legitimate reasons, including energy production and economic development. In many cases – most notably in the case of Iran’s pursuit of enrichment capability – such reasons can be difficult to dispute. Despite analysis showing that such an enrichment program is not a financially attractive economic investment for Iran, there is no definitive proof that Iran intends to use its enrichment technologies for weapons purposes.<sup>1</sup> Several other case studies can help illustrate how the dual-use nature of nuclear, chemical, and biological technologies is of concern in every facet of nonproliferation regimes.

## **Case study: U.S.-India nuclear cooperation**

India has long been outside the Nonproliferation Treaty (NPT), having developed nuclear weapons capabilities, and performing its first nuclear test in 1974. The initiation of nuclear cooperation between the U.S. and India has therefore initiated significant international debate. Questions have been raised regarding the legality of the proposed cooperation. At the recent meeting of the Council for Security in the Asia Pacific (CSCAP) WMD study group, concerns were also raised that the U.S.-India agreement tacitly acknowledged India as a nuclear weapons state, and the impact this could have on the NPT. Some speakers at the meeting indicated that not moving forward with U.S.-India cooperation could further isolate India from the international nonproliferation regime, and undermine the stability of the NPT; others noted that moving forward with the agreement could isolate and potentially destabilize Pakistan. Many speakers noted that such an agreement with India was illegal under U.S. law, and would not be supported by most members of the Nuclear Suppliers Group (NSG).

In addition to the direct impact on the NPT and regional stability, there are nonproliferation concerns about the terms of the U.S.-India agreement. Under the agreement,

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<sup>1</sup> Wood, Thomas, Matthew Milazzo, Barbara Reichmuth, Jeff Bedell, “The Economics of Energy Independence for Iran,” Joint Report, Pacific Northwest National Laboratory and Los Alamos National Laboratory, March, 2005.

India will divide its facilities into civilian and military installations, and put its civilian facilities under international safeguards. This will increase the total percent of India's safeguarded facilities –approximately 2/3 will be under IAEA inspections. However, there are concerns as to whether the division could facilitate its ability to produce more fissile material for its weapons program. Under the proposed agreement, India could acquire fuel for its reactors commercially, and use its now-unallocated domestic uranium for weapons purposes. In particular, it could use its military-designated small-scale centrifuge enrichment plant to make highly enriched uranium to support nuclear weapons production.<sup>2</sup> This is because the same material can be used for reactor fuel or weapons material. This ambiguity can inhibit the transparency of India's nuclear export activities and of its weapons-related activities, causing problems for the international nonproliferation community. Frequent and open communication, strict safeguards, and transparency mechanisms will be important to ensure trust if the U.S. and India move forward the proposed agreement.

### **Encouraging economic development while prevent WMD proliferation**

Moore's Law forecasts the doubling of the improvement of a technology in the short span of 18 months. Although it originally described the progress of technology in computer science and engineering, it can also be applied to the fast-moving evolution of technologies in the life sciences where the rate of technology improvement frequently doubles in a short time-frame. Rapid developments in biotechnology and the life sciences bring significant benefits through new applications of science and technology; however, this revolution is also creating new challenges for the control of biological weapons (BW). Existing legal measures to control the spread of BW materials, technologies, and equipment are flawed or incomplete. The 1972 Biological and Toxin Weapons Convention (BWC) prohibits the development and possession of biological weapons, but lacks formal measures to ensure that states are complying with their obligations. Additionally, there are growing concerns regarding terrorism, and the potential that non-state actors could use biological weapons to cause widespread destruction. The U.S. anthrax attacks of 2001 killed five people and resulted in over a billion dollars in costs for decontamination, health care, and lost productivity.

The key challenge associated with the proliferation of biological weapons is again, their dual-use nature. This applies to knowledge, technologies, and biological materials, such as pathogens. For instance, in efforts to respond to existing and emerging threats from infectious disease, the same scientific information intended for good can fall into the wrong hands and be used to threaten a population in an act of bioterrorism. Key pieces of technology or equipment used for legitimate industrial or pharmaceutical purposes could also be used for producing BW. Certain biological agents that can be used for terrorist purposes are also endemic to certain parts of the world. This means these agents are accessible to terrorists or could threaten a wider population in a natural outbreak.

Emerging scientific disciplines, such as synthetic biology, draw upon integral components of many branches of science. Synthetic biology allows the rapid synthesis of several known pathogens and toxins, including Ebola and influenza viruses, from component parts (*de*

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<sup>2</sup> Kimball, Daryl, "The U.S.-India Nuclear Deal: A Critical Assessment," Arms Control Association Press Briefing, Feb. 15, 2006.



*novus*) without requiring access to the pathogen itself. Recent technological advances and increased availability of open-source information on pathogens and toxins have increased the threat posed by the intellectual and material capital in the field of synthetic biology.

The dual-use nature of the life sciences makes it difficult to develop an effective mechanism for verification because one dimension that cannot be measured is “intent.” Preventing proliferation of biological weapons must rely, to some extent, on trust and transparency. Individual scientists bear some of the responsibility for implementing the BWC and mitigating the threat of biological weapons. Discussing a scientific code of conduct or ethics and helping scientists to better understand and voluntarily implement the provisions of the BWC would promote control of biological weapons. Although obligations are not imposed directly on individual scientists, in the national implementation of the BWC by the U.S., laws have been passed relating individual actions to U.S. government obligations under the BWC. The responsibilities of individual scientists in proposing and conducting research, in sharing research results, and in the safe handling of biological materials and substances are key to the U.S. being able to fulfill its obligations under the BWC and to improving the overall level of safety and security.

## **Conclusion**

Regional tensions, the emerging threats of terrorists and nonstate actors, and fast-developing technologies have amplified the historical challenge posed by dual-use technologies. Although events such as the 2001 terrorist attacks on the U.S., the failure of the 2005 NPT Review Conference, and the global threat posed by North Korea and Iran have shaken global confidence in nonproliferation regimes, many feel that these are still fundamental tools for discouraging the development and use of WMD. Consensus at the most recent meeting of the CSCAP WMD study group indicated that certain measures, including implementation of UN Security Council Resolution (UNSCR) 1540, application of proliferation-resistant technologies, and development of a global culture of ethics and responsibility, may have the potential to revitalize global nonproliferation regimes.

However, it is clear that there is not one single strategy for managing the dual-use nature of knowledge and technology. Promoting nonproliferation, while encouraging economic development and scientific research, will require reinforcing the current nonproliferation regimes with a variety of mechanisms. Speakers at the CSCAP WMD study group meeting indicated the importance of international consensus in working with states outside nonproliferation regimes. Disarmament and technical assistance were also brought forward as critical tools. Nontraditional tools are also needed to encourage individuals and nonstate actors to promote nonproliferation. Tools such as self-regulation by countries and companies selling dual-use technologies, education and outreach regarding dual-use technologies, and codes and other measures to develop a global culture of cooperation and responsibility will be key pieces in reinforcing the global nonproliferation regime.



# Reinvigorating the Nuclear Nonproliferation Regime

By Sun Namkung

The biggest threats to the nuclear nonproliferation regime are the loopholes in the global regime. The biggest loophole is the existence of nuclear weapons states (NWS) outside the Nuclear Non-Proliferation Treaty (NPT). The existence of such states encourages countries with nuclear weapons ambitions to believe that becoming a de facto nuclear weapons state is possible with no long-lasting repercussions. At the third meeting of the CSCAP Study Group on “Countering the Proliferation of Weapons of Mass Destruction in the Asia Pacific,” the unfairness of the NPT was plain as participants from nonnuclear weapons states (NNWS) and India emphasized this point. Having said that, the goals of the NPT are also clear, and those goals more than compensate for the unequal status of nuclear and nonnuclear weapons states. The atomic genie can’t be put back into the bottle, but the NPT and other agreements like the Australia Group and the Nuclear Suppliers Group can help manage nuclear proliferation. All UN member states should promote the three pillars of the NPT – peaceful use, nonproliferation, and disarmament. These goals check human avarice and put a restraint on human curiosity to prevent outcomes – miniaturized, smart nuclear weapons – for which the international community may not be prepared. There are also well-known and much discussed loopholes within the NPT that should also be addressed, such as penalties for leaving the NPT and obligations for rejoining the treaty. As the lone superpower, the U.S. is obligated to be the trailblazer in nuclear disarmament, nonproliferation, and counter-proliferation measures.

## **Shortcomings of current nonproliferation regimes**

There are several shortcomings in current nonproliferation regimes. The first problem is the most obvious: India, Israel, and Pakistan are not signatories to the NPT. These countries are in regions with political, social, and geographic instability. The three countries developed a “native” nuclear weapons program to protect themselves from neighbors. This is worrisome, because if any of the three uses nuclear weapons it would plunge its region into wider conflict.

### 1. Exclusion of India, Israel, and Pakistan from the NPT regime

The absence of India, Israel, and Pakistan from the NPT creates a third category of states: de facto nuclear weapons states. This creates an incentive for NNWS to become de facto nuclear states: two examples are Iran and North Korea. There needs to be universal compliance by all states with a nonproliferation regime that ensures nuclear weapons will not be used for tactical or strategic advantage and that all states move toward disarmament.

### 2. Lack of penalties for withdrawal from the NPT

The second shortcoming is in the structure of the NPT agreement. Article X allows for the withdrawal of a party should its national interests be detrimentally affected. The biggest drawback of this clause is that there are no penalties for infractions that occurred during membership or the fact that the signatory is leaving to work on a weapons

program. Nor does the treaty address how signatories that rejoin the treaty should be dealt with.

### 3. Open-ended deadline for disarmament

The third shortcoming has to do with a pillar of the NPT – disarmament. The NPT does not have an end-date or even a timeframe for disarmament. The U.S. and the Soviet Union (now Russia) have significantly decreased their nuclear arsenals, but in 2002 the U.S. had 11,000 warheads and Russia had 19,500 warheads.<sup>1</sup> In the Lugar Survey on Proliferation Threats and Response (June 2005), WMD and nonproliferation experts believed that one to three nations would be added to the nuclear club in the next five years, a majority thought that one to five countries in the next 10 years, and one to 10 in the next 20 years. So, under the current framework a handful of NNWS would become de facto nuclear states, which would violate their NPT obligations. This would create a bigger crisis than the current Iran and North Korea situation. The Iran and DPRK regimes can be written off as anti-international society. But additional signatories falling to the nuclear weapons wayside brings into question the effectiveness and utility of the NPT regime itself.

### **Steps the U.S. should take to strengthen the nonproliferation regime**

The United States should take the lead role in creating a universally compliant regime by moving unilaterally toward disarmament. The U.S. has more than enough conventional armaments to devastate any country. Nuclear weapons are unnecessary and antiquated for defensive purposes. To use nuclear weapons for an offensive purpose would turn all nations, as well as many Americans, against the U.S. government. The simple truth is no community, U.S. or international, wants a nuclear arsenal stored near them. The U.S. has a mixed view of military and even civilian use of nuclear power. In many cases, communities are opposed to a civilian nuclear power reactor – and with reason. In Hanford, Washington, at least \$11.3 billion will be needed to safely dispose of the 53 million gallons of leftover plutonium from decades of nuclear weapons production. Some of the wastes date back to the Manhattan project. No new nuclear power plants have been ordered in the U.S. since 1978 and the last commercial plant to come on-line was the Watts Bar I (Tennessee Valley Authority project) started in 1973. Watts Bar II was never completed as construction was permanently halted in 1988. With increased oil prices, there has been more talk of new nuclear reactor construction, but no new plans for reactors have been submitted for community-wide consideration.

These are steps, unilateral and multilateral, the U.S. can take to strengthen the nonproliferation regime:

#### 1. Universalizing the NPT regime.

The U.S. should take the lead in revising the NPT to reflect universal compliance rather than just signatory compliance. Just as the UN Charter enshrines universal human rights

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<sup>1</sup> “U.S.-Soviet/Russia Nuclear Arms Control.” (June 2002) *Arms Control Association Fact Sheet*. retrieved from website <http://www.armscontrol.org/pdf/ussovietrussianarms.pdf> on March 13, 2006.

that even nondemocratic regimes have agreed to, so too should the NPT aspire to universal compliance. All states should see nuclear weapons as a danger for humanity, even though not all states see a risk of nuclear weapons proliferation. In a patchwork proliferation system where some NWS have NPT obligations and other nuclear states do not, NNWS become cynical or desire to acquire nuclear weapons. Universal compliance is not a panacea, but it will measure all nations against a common yardstick.

## 2. Institutionalizing the Proliferation Security Initiative

The Proliferation Security Initiative (PSI) is a logical next step in closing a hole in export controls. Since the PSI came into existence in September 2003 (the initiative was announced in Krakow May 31, 2003), a major proliferation network, the A.Q. Khan network, was unraveled. This showed that PSI works. The U.S. needs to push for institutionalization of PSI at the international level, so that issues of extra-legality can be cleared up. Once the legal issues are addressed to the satisfaction of national and international stakeholders, PSI can become a major tool for law enforcement on land, air, and on the seas.

## 3. Continuing U.S. nuclear arms reduction

The U.S. should continue decreasing its stockpile of nuclear warheads. This can be done unilaterally as it modernizes its arms. If that is not politically feasible, another round of arms reductions with Russia would work. As Russia may not have the funds for large-scale arms reductions, the U.S. should fund that endeavor as it does via the Nunn-Lugar program of Cooperative Threat Reduction. The end-point should be disarmament and not arms reduction.

## Conclusion

The 2005 U.S.-India Civil Nuclear Cooperation agreement should be seen as strengthening nonproliferation efforts. The U.S.-India civilian nuclear agreement should not be used as a fait accompli to pronounce the death of the NPT. The deal may in the short-term seem to weaken the current nonproliferation regime, but a distinction should be made between the regime and the goal of stopping nuclear proliferation. Withdrawal of Iran and North Korea from the NPT to pursue nuclear weapons programs shows that the current regime is at a crossroads. If de facto nuclear powers could be made to accept the provisions of the NPT without being a signatory, then a significant loophole will have been closed. Though the U.S.-India civilian nuclear arrangement does not satisfy all NPT requirements, it is a beginning. The critics of the deal should be less wedded to the NPT and be more open to other organizational structures of nonproliferation though they may be ad hoc. This may be the “foot in the door” the international community needs to bring India under international norms; hopefully, Israel and Pakistan will follow. If these three states are brought under the NPT umbrella, what rationale can Iran and North Korea use when they breach their treaty obligations?



# ASEAN and the Threat of Nuclear Proliferation in Southeast Asia

By Nguyen Nam Duong

Nuclear proliferation is potentially the most damaging threat to Southeast Asian security today. Closely linked to nuclear energy, nuclear proliferation is linked to the goals of security and development, key national concerns in the 21<sup>st</sup> century. Put in a broader context, this regional issue is part of the global combat against weapons of mass destruction (WMD) and is also a political conflict between developed and developing countries over nuclear technology and power. Individual and collective responses to nuclear proliferation by Southeast Asian states are notable, but leave much to be desired. This paper examines sources of nuclear danger in contemporary Southeast Asia and regional cooperation against nuclear proliferation. It also offers personal views on nuclear politics and recommendations the region could take to preserve stability and prosperity.

## **The threat of nuclear proliferation in Southeast Asia**

The possibility of nuclear proliferation presented no serious risk to Southeast Asia, even at the height of the Cold War. Although regional confrontation and superpower rivalry ravaged Southeast Asia, no regional government attempted to acquire nuclear weapons to bolster its security or political influence. Now that the Cold War has ended, it has been difficult to argue that these countries have any intention to develop nuclear weapon programs for political or security reasons.

With regional economies growing rapidly, interest in nuclear power is on the rise in Southeast Asia. Regional governments are looking at nuclear power to fuel their expanding economies. Currently there are eight operating research reactors in Southeast Asia (Malaysia: 1; Vietnam: 1; Philippines: 1; Indonesia: 3; Thailand: 1+1), with more to be constructed in the near future.<sup>1</sup> Of the 10 regional states, Indonesia and Vietnam are undertaking prefeasibility studies on nuclear power plants, and there are plans to build two power reactors in each country.<sup>2</sup>

The rise of terrorism in Southeast Asia since Sept. 11, 2001 has triggered security concerns over these nuclear projects. Although these are rarely suspected as clandestine nuclear weapon programs under the cover of peaceful nuclear projects, they do create opportunities for terrorists who aim to inflict catastrophic damage. Civil nuclear projects can become sources of materials for terrorists as substances used at regional research reactors and nuclear power stations are not properly secured. Terrorist groups are especially interested in nuclear and other radioactive substances because they are pre-requisites to the fabrication of nuclear devices. Attempted thefts and trafficking of radioactive substances from regional research reactors have been detected in Southeast Asia; the region is said to be a target for terrorists.

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<sup>1</sup> Tanya Ogilvie-White, "Preventing Nuclear and Radiological Terrorism: Nuclear Security in Southeast Asia," Occasional Paper Series, The Australian Centre for Peace and Conflict Studies, 2005.

<sup>2</sup> See *Asia's Nuclear Energy Growth*, Nuclear Issues Briefing Paper 2, Uranium Information Centre Ltd, November 2003.

The issue gets more complicated when power politics enter the game, which can be seen in the case of Iran. As ASEAN is a group of developing countries that are concerned with the right to acquire nuclear technology for development purposes, it naturally sides with the developing world in the debate over the possession of civilian nuclear capacity. Although the nuclear weapons states (NWS) have shown no intention to achieve the Nuclear Non-Proliferation Treaty (NPT) goal of nuclear disarmament, they still demand that developing countries comply with their own “NPT plus” terms, i.e., to abandon the right to acquire nuclear technology on the grounds that it has military applications. To date, ASEAN countries are not the focal points of international nuclear politics, but their aspiration for nuclear energy may lead to clashes with the NWS.

### **Regional solutions to nuclear proliferation**

At the global level, many international mechanisms have been set up to improve global nuclear security. However, Southeast Asian countries are reluctant to engage deeply in global nonproliferation regimes because of their concerns over sovereignty and the right to development. In that context, regional cooperation under the ASEAN framework is a promising avenue for Southeast Asians to address nuclear security.

To date, the most significant effort by ASEAN to counter nuclear proliferation is the Treaty on the Southeast Asia Nuclear Weapon-Free Zone (SEANWFZ). The treaty requires states to abstain from acquiring nuclear weapons and for the NWS to spare the region the risks of nuclear war.<sup>3</sup> The signing of the SEANWFZ Treaty in 1995 is the achievement of a long process of ASEAN consultation beginning in the early 1970s, which was aimed at securing the region from nuclear confrontation. Its Protocol calls on the NWS to respect SEANWFZ and not to contribute to any act that constitutes a violation of the treaty. Despite its significance in preventing a nuclear arms race and contributing to confidence building in Southeast Asia, SEANWFZ exerts only indirect effects on preventing nuclear materials from falling into the hands of terrorist. As SEANWFZ was designed to cope with “traditional” nuclear threats, it is not up to the current demands to combat nuclear terrorism.

ASEAN has shown its collective efforts to counter terrorism in numerous political declarations, the most notable of which was the 2001 ASEAN Declaration on Joint Action to Counter Terrorism. However, substantive cooperation in this field is rather slow due to rigid compliance with the age-old ASEAN principle of state sovereignty. Moreover, nuclear terrorism was not given due attention, as can be seen through the absence of the term in ASEAN counter-terrorism documents.

More attention is given to nuclear security issues within the ASEAN Regional Forum (ARF), an extension of ASEAN, thanks to the participation of Western powers. The 2004 Second ARF Inter-sessional Meeting on Counter-Terrorism and Transnational Crime appealed to member states to support internationally agreed upon security standards such as the International Ships and Port Security (ISPS) Code and various UN security conventions and protocols. Recently, the 11<sup>th</sup> ARF Meeting in Jakarta in July 2004 issued an ARF Statement on Non-

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<sup>3</sup> See M. C. Abad, “A Nuclear Weapon-Free Southeast Asia and Its Continuing Strategic Significance,” *Contemporary Southeast Asia*, No. 2, August 2005, p. 165-87.



Proliferation, according to which ARF participants agreed to review their abilities to control radioactive sources and to cooperate with the IAEA to strengthen nuclear safeguard measures. However, much has to be done to turn the ARF into an effective mechanism for collective action on nonproliferation and not just a forum for dialogue.

Meanwhile, non-ASEAN collaboration is recognized as more efficient in the fight against nuclear proliferation in Southeast Asia. Several ASEAN members enjoy good relations and have close bilateral cooperation with the United States in countering terrorism and proliferation. The annual *Cobra Gold* exercise has recently shifted its focus to military preparedness for incidents of nuclear terrorism.<sup>4</sup> Non-ASEAN cooperation has its own merits but it may undermine ASEAN as an all-region institution and create distrust among member countries.

## **Recommendations**

The final part of this paper makes recommendations to enhance ASEAN cooperation on nonproliferation as ASEAN still provides a cherished mechanism for Southeast Asians. Before specific steps could be taken, enhancing regional awareness of the threat of nuclear terrorism should be made a priority. Nuclear security should be singled out as a distinct and important field within the framework of ASEAN peace and security cooperation. Nonproliferation should be continuously included in ASEAN and ARF agendas and become one of ASEAN's central themes for consultation. ASEAN should also develop its own cooperative mechanism for nuclear energy, as this mechanism can give more legitimacy to the nuclear energy programs pursued by member states.

ASEAN should work out measures to facilitate the accession of the NWS to the SEANWFZ Protocol. (The main point of contention between ASEAN and the NWS is over the geographical scope of the treaty, which covers not only the territory and the territorial sea of the state parties but also their continental shelf and exclusive economic zone.) Furthermore, the SEANWFZ Treaty should be amended to include articles dealing with nonstate actors and provide mechanisms to collectively address nuclear security in the age of terror. As all 10 ASEAN countries have concluded agreements with the IAEA for the application of full-scope safeguards to their peaceful nuclear activities, all ASEAN countries should consider signing the IAEA Additional Protocol.

Fighting nuclear proliferation requires concerted efforts at both regional and global levels. ASEAN should encourage member states to engage more deeply on global activities in counter-proliferation. While preserving their rights to sovereignty and development, ASEAN countries should not alienate themselves from international efforts to address one of the most pressing security issues. ASEAN should call on member states to sign and ratify various international conventions such as the Convention on the Physical Protection of Nuclear Material (CPPNM) and others. In so doing, ASEAN can assert itself not only as a pillar in maintaining regional nuclear security but also as a strong supporter of global nonproliferation regimes.

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<sup>4</sup> Michael Roston, "Nuclear Archipelagoes? Secure Nuclear Materials in Southeast Asia", *PacNet* 25, Pacific Forum CSIS, June 21, 2002.



# Finding Synergy among Instruments: Thoughts on WMD Proliferation in the Philippine Context<sup>1</sup>

By Raymund Jose G. Quilop

The proliferation of weapons of mass destruction (WMD) remains one of the key challenges confronting states in the Asia Pacific. WMD, particularly the proliferation of related materials and technology, is no longer simply a concern of the bigger powers. The issue has also become a concern for smaller states, the Philippines included, because fissile materials and the related technology could be made accessible to nonstate groups, specifically terrorists. Once made available to such groups, these materials could be used to inflict harm and damage to citizens of any state. The increased possibility of access to WMD materials and technology to nonstate actors has, therefore, made this issue a concern for big and small states alike, something that was reiterated in the meeting of the Council for Security Cooperation in the Asia Pacific (CSCAP) Study Group on Countering the Proliferation of Weapons of Mass Destruction held in Singapore in March 2006.

The development of a nuclear weapon from plutonium with the “construction of an implosion-type device” as well as the relevant missile system for delivering the weapon to intended targets is technically difficult and financially costly.<sup>2</sup> These constraints previously made nuclear weapon development the business of states. The large-scale production of both biological and chemical weapons was also considered to be the sole business of states because of the resources required in developing these weapons.

However, creating crude nuclear explosives and small-scale biological and chemical weapons is more technically feasible and less costly than previously thought, thereby making it possible for even nonstate actors that do not have the same resources available to them as states, to produce such weapons. They may be crude and small, but they are lethal nonetheless.

For countries like the Philippines that have domestic terrorist groups such as the Abu Sayyaf Group (ASG), the possibility of these groups getting access to related technology, producing such weapons, and using them against the public, cannot be discounted.

Founded in 1991 by Ustadh Abdurajak Abubakar Janjalani, a veteran of the anti-Soviet war in Afghanistan, the ASG had an initial membership of 200. The group’s membership reached its peak in 2000 when members totaled about 1,270. Their number decreased to around 425 by the end of 2004, perhaps because of continuous military operations against the group.<sup>3</sup> Waging terrorist and criminal activities, ASG members base the organization’s existence on the

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<sup>1</sup> The views expressed in this essay are those of the author and do not reflect the views of the institutions he is affiliated with.

<sup>2</sup> Cristina Chuen, “Reducing the Risk of Nuclear Terrorism: Decreasing the Availability of HEU” found at <http://cns.miis.edu/pubs/week/050506.htm>.

<sup>3</sup> The figures are from Carolina G. Hernandez, “Institutional Responses to Armed Conflict: The Armed Forces of the Philippines” (Background Paper submitted to the Human Development Network Foundation Inc. for the Philippine Human Development Report 2005), p. 26.

struggle for Muslim identity and self-determination.<sup>4</sup> To show this, the ASG changed its name to Al-harakatul Islamiya (Islamic Movement) soon after the killing of its original leader, Janjalani and the assumption of command by his brother, Kaddhaffy Janjalani, in 1998.<sup>5</sup>

The ASG is composed of various factions that have become known for their ruthlessness in bombing public places and kidnap-for-ransom activities. In 1993, the group killed seven people when it tossed grenades inside a Catholic Cathedral in Davao. In 1995, it invaded the Christian village of Ipil in Mindanao and left 53 people dead.<sup>6</sup> A Philippine ship *MV Our Lady of Mediatrix* in Ozamis City and the Sasa Wharf passenger terminal in Davao City were blown up in February and April 2002, respectively. In 2003, *Superferry 14*, a private inter-island passenger vessel was burned. Philippine authorities have tagged the ASG as behind these incidents, although the group only claimed responsibility for burning *Superferry 14*.<sup>7</sup>

The Abu Sayyaf is also believed to have maintained links with Jemaah Islamiyah (JI), which is closely affiliated with the Al-Qaeda network and whose members have reportedly been operating in Indonesia, Singapore, Thailand, and the Philippines. It is estimated that around 36 JI members, mostly Indonesians equipped with 27 firearms, are in Philippine territory.<sup>8</sup> Given the archipelagic nature of Philippine territory, it is relatively easy for JI members to enter the country through Mindanao, the “southern backdoor” of the Philippines.

In this context, it is important for the Philippines to cooperate with Malaysia and Indonesia. Toward this end, several mechanisms are significant. These are the border patrol agreements and an agreement on information exchange that the Philippines has concluded with its two Southern neighbors. The border patrol agreements provide for a system of control regarding the entry of vessels in the three states’ maritime borders and prevent their border areas from being used for smuggling, piracy, and other criminal activities. With the border patrol agreements providing legal parameters, the navies of the three states are able to conduct joint patrols.

The “Agreement on Information Exchange and Establishment of Communication Procedures” signed in 2002 provides the framework for cooperation in information exchange among the three parties, as well as the establishment of communication procedures between them in relation to terrorism and related transnational crimes. This includes money laundering, smuggling, piracy/robbery at sea, hijacking, illegal entry, drug trafficking, and illicit trafficking in arms.<sup>9</sup>

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<sup>4</sup>Richard W. Baker and Charles E. Morrison (eds.), *Asia Pacific Security Outlook 2000* (Tokyo, Japan: Japan Center for International Exchange, 2000), p. 130.

<sup>5</sup> *Time Magazine*, May 8, 2000, p. 17.

<sup>6</sup> *Ibid.*

<sup>7</sup> Reynaldo P. Lopez, “Multinational Cooperation Against Security Threats: A Philippine Perspective” (Paper delivered at the 8<sup>th</sup> Asia-Pacific Naval College Seminar, 08-16 February 2005 at the Japan Maritime Self-Defense Force Staff College, Tokyo, Japan), p. 2.

<sup>8</sup> *Ibid.*, p. 3.

<sup>9</sup> See Raymund Jose G. Quilop, “Defending Homeland: Prospects and Challenges for the Philippines” (Paper presented at the 8<sup>th</sup> Kanazawa Symposium on Northeast Asia on “Security Outlook in Northeast Asia and New Agenda for the Kanazawa Process,” Kanazawa City, Japan, June 4-6, 2002), p. 9.

Forms of cooperation that could be carried out through this agreement include:

1. facilitating proper coordination and collaboration during border and/or security incidents, transnational crimes and other illegal activities where individual resources of a party may be inadequate;
2. establishing common understanding and approaches in managing the multiple and complex issues arising from transnational crimes;
3. strengthening national and sub-regional capacities to manage border and/or security incidents and transnational crimes through information exchanges, agreed communication procedures and training;
4. reviewing and enhancing internal rules and regulations, both legal and administrative, to ensure proper, effective, and timely collaboration and response to border and/or security incidents and in times of operational constraints with the implementation of defense, border and security arrangements;
5. providing opportunities for the parties' duly authorized representatives to establish linkages to facilitate cooperation;
6. facilitating dialogue among the parties on criminal and crime-related activities committed within their respective territories which may adversely affect the interest of any or all of the other parties; and
7. establishing mechanisms for immediate response and assistance among the parties.

These agreements could be used by the three states to prevent the proliferation of WMD-related technology and materials across their borders and within their territories. By providing a legal basis for joint border patrols, these agreements could serve as important instruments in curbing illicit activities along the Philippine-Malaysian-Indonesian maritime border, including the transfer of WMD-related materials. The border patrol agreements allow the navies of the three states to jointly ensure that WMD materials are prevented from entering their countries. According to Philippine Navy authorities, naval patrols jointly conducted with Malaysian and Indonesian navies have apprehended smugglers and other criminals. It remains to be seen whether similar patrols would be able to interdict WMD-related materials if these materials were to be shipped along the borders of the three neighboring countries.

The agreement on information exchange allows the three states to share intelligence and other relevant information regarding WMD-materials being produced in their territories and technology being shared by terrorists operating within their territories, as well as intelligence regarding the possible transfer of materials and technology across the borders of the three neighbors. However, similar to the border patrol agreements, it remains to be seen whether the sharing of information facilitated by the agreement will be translated into the actual

apprehension or interdiction of WMD-materials if terrorist groups attempt to move these materials around the territory of the three states.

Given these considerations, it is clear that these agreements need to be linked to other mechanisms so that the problem of proliferation of WMD-related materials and technology is addressed. For example, we should search for ways to tie these agreements with the Proliferation Security Initiative, which provides a multilateral framework for “prevent[ing] the transportation and export of materials related to WMD and missiles”.<sup>10</sup>

States across the region, among them these three Southeast Asian neighbors, may have instruments for addressing the problems posed by terrorists. But there remains a key challenge: how to find or create synergy among these instruments so that they effectively enable states to prevent WMD, the attendant delivery systems, and related materials and technology from being illicitly transferred from states to nonstate actors or from one nonstate group to another.

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<sup>10</sup> Takehiko Yamamoto, “Growing Threats of WMD Proliferation in East Asia and Active Engagement of Japan in the Proliferation Security Initiative” (Paper presented at the Tenth United Nations Symposium on Northeast Asia in Kanazawa, Kanazawa City, Japan, June 7-9, 2004), p. 1.

## Seizing the Moment: Continuing Philippine Contributions to the Global Fight against the Proliferation of WMD

By Ronald A. Rodriguez

The Philippines prides itself on having recently fulfilled its mandate as a nonpermanent member of the United Nations Security Council (UNSC) from 2004 to 2005. In January 2006, UN Secretary General Kofi Annan lauded the Philippines for its “two distinguished presidencies” of the body in June 2004 and September 2005 sessions.

Its stint at the UNSC will be best remembered for having paved the way for President Gloria Macapagal-Arroyo to become the first Asian and the first woman leader to preside over the Security Council Summit. The Philippines also set a precedent during its June 2004 presidency by enabling civil society and NGOs to participate for the first time in formal Security Council meetings on thematic issues. Aside from its chairmanships of the Committee on Somalia and the 1566 Working Group against Terrorism, the Philippines was vice chair of the Committees on Liberia and Sudan and the 1540 Committee against the proliferation of weapons of mass destruction (WMD).

Special attention should be given to the Philippines’ involvement in the 1540 Committee. A statement recently issued by Ambassador Lauro Baja, permanent representative to the UN said, “The respect and goodwill we built in the Council are solid foundations for the other initiatives of the Philippines in other UN organs.” This proposition will be tested if and when the Philippines decides to pursue a leadership role in the campaign against the proliferation of WMD, among other issues.

That the Philippines will continue to fight against the threats posed by WMD is expected. Given its geographic, economic, and environmental vulnerabilities, let alone the vulnerability of its millions of citizens spread across the world, the Philippines can neither afford to be indifferent nor complacent.<sup>1</sup> Its stakes in both regional and global security have significantly increased in the aftermath of the spate of kidnappings of Filipino citizens in Iraq, Afghanistan, Liberia, and Nigeria. Terrorists have also launched attacks in Southeast Asia, especially in Indonesia and the Philippines. Against this backdrop, the motivation for the Philippines to contribute to international security has gone far beyond token participation. It may not have the resources, but Manila now claims to have sufficient diplomatic capital that could be put to good use.

One way to use its influence to shape the international consensus on the need to address WMD proliferation issues is by using it as a precondition for support for other countries for a non-permanent seat on the UNSC and leadership posts in other UN bodies. Countries that commit themselves to supporting ways to fight the proliferation of WMD stand a better chance of getting Manila’s endorsement.

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<sup>1</sup> Rodriguez, Ronald A., “Countering the Threat of Weapons of Mass Destruction: Philippine Perspectives and Responses” in Glosserman, Brad (ed.) *Fighting the Spread of WMD: Views from the Next Generation*. Issues and Insights, Vol. 6, No. 4, (2006), Honolulu: Pacific Forum CSIS.

Moreover, the Philippines could also build on recent initiatives and developments in the region. APEC's commitment to a safe and transparent Asia-Pacific region,<sup>2</sup> the East Asian Summit's expressed concern about maritime security and international terrorism,<sup>3</sup> and the 11<sup>th</sup> ASEAN Summit's recognition of the progress in the envisioned ASEAN Security Community (ASC)<sup>4</sup> have fueled the growing momentum for regional cooperation to curb the threat of WMD, terrorism, and other security concerns. In the short-term, the Philippines could sustain this momentum by pushing for the inclusion of proliferation concerns on the agenda for the next ASEAN Summit in Manila this year.

Signs of the Philippines' commitment are encouraging. Despite the political instability in the Philippines, it has recently embarked on an ambitious attempt to fight terrorism at sea by cooperating with Malaysia and Indonesia. The proposed mechanism seeks to prevent the transit of terrorists and the smuggling of weapons and bomb materials.<sup>5</sup> The initiative will complement the three countries' agreement in 2005 to conduct yearlong joint patrols. But it is unclear if the Philippines will propose to expand this cooperation in Southeast Asia. Some speculate whether the Philippines could push for the ambitious expansion of the Southeast Asia Nuclear-Weapon-Free Zone into an East Asian Nuclear-Weapon-Free Zone.<sup>6</sup> Sources say that China is now inclined to accede to the treaty.

Admittedly, the Philippines and its Southeast Asian neighbors face significant constraints both in terms of the expertise and infrastructure required to deal with WMD proliferation. This underscores the need for the region to take relations with Northeast Asia to a higher plane on the one hand, and reinvigorate deteriorating relations with the United States on the other. In 2005, the Philippines forged a Status of Forces Agreement (SOFA) with Australia to broaden their defense and security cooperation.<sup>7</sup> Their shared concerns about the threat of WMD proliferation should help generate a fresh impetus for cooperation.

Domestically, significant developments are also unfolding. In its 2006 Counter Terrorism Action Plans, for instance, there is notable emphasis on the need to improve the country's customs capability, procedures, and standards.<sup>8</sup> There are also ongoing studies on how to improve the Philippines' transport security system. The prospects of modernizing the Philippine Navy and the Coast Guard remain bleak, however.

Finally, it is critical to note that the Philippines is making significant headway in its fight against terrorism. According to Ambassador Baja, the Philippines approaches the issue of WMD

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<sup>2</sup> 2005 APEC Leaders Declaration, 13th APEC Economic Leaders' Meeting, Busan, Korea, November 18-19, 2005. Available at [http://www.apec.org/apec/leaders\\_declarations/2005.html#II](http://www.apec.org/apec/leaders_declarations/2005.html#II). Accessed March 17, 2006.

<sup>3</sup> Chairman's Statement of the First East Asian Summit, Kuala Lumpur, December 14, 2005. Available at <http://www.aseansec.org/18104.htm>. Accessed on March 17, 2006.

<sup>4</sup> 'One Vision, One Identity, One Community', Chairman's Statement of the 11th ASEAN Summit, Kuala Lumpur, Dec. 12, 2005. Available at <http://www.aseansec.org/18039.htm>. Accessed March 17, 2006.

<sup>5</sup> Sea Lanes to Augment Security, Armed Forces of the Philippines, March 18, 2006. Available at <http://www.armedforces.mil.ph/0/news/sea.php>. Accessed March 17, 2006.

<sup>6</sup> See Bangkok Treaty: Southeast Asia Nuclear-Weapon-Free Zone Treaty, Entered into Force March 28, 1997.

<sup>7</sup> Press Briefing with Sec. Avelino Cruz, Jr. and the Hon. Robert Hill of Australia, Department of National Defense, Republic of the Philippines, October 18, 2005. Available at [http://www.dnd.gov.ph/DNDWEBPAGE\\_files/html/pronounce.htm](http://www.dnd.gov.ph/DNDWEBPAGE_files/html/pronounce.htm).

<sup>8</sup> See Document: Philippine Counter Terrorism Action Plans 2006.



proliferation “through a prism of measures to combat terrorism.”<sup>9</sup> The recent capture of Abu Sayaff member and bomb expert Julkaram Maron Hadjail demonstrates the Philippines’ resolve to eradicate the threat of terrorism in its own backyard<sup>10</sup> By neutralizing terrorists, criminal syndicate rings, and other criminal elements, the Philippines helps reduce the chances of WMD getting into the hands of dangerous nonstate actors. This is where the Philippines is making a contribution to the global effort to thwart WMD proliferation.

But bigger challenges lie ahead. One is mobilizing a regional coalition whose voice could help produce results in the global fight against the proliferation of WMD. Shared threat perceptions do not automatically translate into shared efforts in the region. Some analysts have raised the possibility of abuse of nuclear programs in Southeast Asia, where the peaceful use of nuclear energy could produce a nuclear weapons build up. There is particular concern about Myanmar’s interest in building nuclear reactors. Although Myanmar has denied any sinister intention, it remains to be seen whether it will keep, or that ASEAN could guarantee, its word.

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<sup>9</sup> Philippine Statement by H.E. Mr. Lauro L. Baja, Jr., Ambassador and Permanent Representative, Permanent Mission of the Republic of the Philippines to the United Nations, Open Debate on Resolution on Non-Proliferation of Weapons of Destruction and Terrorism, Security Council Chamber, April 22, 2004. Available at <http://www.un.int/philippines/statements/20040422.html>. Accessed March 17, 2006.

<sup>10</sup> Military Nabs Abu Sayaff Bomb Expert, Armed Forces of the Philippines, March 16, 2006. Available at <http://www.armedforces.mil.ph/0/news/milna.php>. Accessed March 17, 2006.



# Strengthening Domestic Responses to Terrorism and WMD Proliferation: Issues and Challenges

By Bryan A. San Juan<sup>1</sup>

It is a virtual truism in academic literature on international peace and security that the shift from the bipolar world of the Cold War to a multipolar world – albeit one dominated by a superpower – has resulted in many uncertainties. One source of such uncertainty is the future of efforts to fight the proliferation of weapons of mass destruction (WMD).

During the Cold War, protagonists were more or less identified, making it less tenuous to engage in strategic calculations of the danger of nuclear conflict between the two superpowers. The resurgence of nonstate actors (which were repressed during the Cold War) such as terrorist groups, ethnic purists, secessionists, and even rogue nuclear scientists, has made planning for strategic responses to WMD proliferation more complicated. This reality is reflected in the dilemmas faced by developing countries such as the Philippines.

At the diplomatic level, the Philippines has actively participated in conventions and agreements regarding WMD, such as the Comprehensive Nuclear Test Ban Treaty (1996), the Treaty on Southeast Asia Nuclear Weapons Free Zone (2005), the Biological Weapons Convention (1972) and Chemical Weapons Convention (1993), among others. Manila has also signed instruments geared toward improving international linkages to interdict terrorists. Despite these initiatives, the Philippines' domestic readiness to deal with WMD threats remains unclear. Filipino diplomats and academics frequently talk about changed dynamics of security threats, yet it seems that these discussions do not resonate in security policies. This is not unexpected in a developing country where government priorities depend largely on the programs' importance to improving the re-election prospects of individual politicians.

This paper looks at the Philippine domestic responses to terrorism and the concomitant threat of WMD proliferation by nonstate actors. It also looks at the country's readiness to tackle the problem and the prospects for resolution of these issues. Two major factors support the need to focus on domestic responses to the possibility of nuclear/bio-chemical terrorism. One is the reality that Philippine terrorists are operating in a crude yet dangerous international network with a capacity to make dirty bombs or even devise WMD technology. The seizure of terrorist manuals in Mindanao regarding WMD is an ominous sign of the new security threats that we have to prepare for. Another factor is the failure of nuclear states to police their ranks and safeguard nuclear technology. Abdul Qadeer Khan, the father of Pakistan's atom bomb, who leaked those nuclear secrets, is one example that is hard to miss. The International Atomic

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<sup>1</sup> He served as a policy analyst at the Macroeconomy and Political Affairs Policy Office in the Presidential Management Staff-Office of the President of the Philippines (2002-2005). His exposure on national security issues began during his tenure as a policy analyst in the Office of the President and continued when he was employed as senior research associate of the Center for Asia Pacific Studies (CENAPSIS).

These views presented here are solely those of the author and not of any government institution. Articulations/comments made pertaining to government strategies are the informed opinion of the author based on facts personally known to him and data in the public realm.

Energy Agency reports on the arrest of terrorists possessing components for pathogen and other WMD components in various parts of Asia, is proof that the WMD threat is real.

Most of the issues underscored here are not unique to the Philippines. I would like to think that these concerns are shared by developing countries whose leaders are preoccupied with domestic demands for social and economic reforms to the extent that they have been blinded to changing security realities.

### **WMD and the Philippine Constitution**

The Philippines is no stranger to terrorism. Since the birth of the Republic in 1898, it has dealt with terrorist attacks from rebel (e.g., the Hukbong Bayan Laban sa Hapon/Huks, Partido Komunista ng Pilipinas and the Communist Party of the Philippines-New Peoples Army) and secessionist groups (e.g., the Moro National Liberation Front/MNLF and its offshoot the Moro Islamic Liberation Front/MILF). Its encounter with the Afghan-inspired Al Harakatul Islamiya (known locally and internationally as Abu Sayyaf) and the radical wings within MILF and MNLF further boost its credentials in dealing with terrorism. It is thus not surprising that despite colder relations between President Gloria Macapagal-Arroyo and U.S. President George Bush after the former's withdrawal of troops from Iraq, the U.S. continues to help fund and support Philippine counter-terrorism measures.

Despite these credentials, it is strange that the main documents on internal security barely tackle the dangers posed by trafficking in weapons of mass destruction.

It is inaccurate to say that the Philippines has turned a blind eye to such a possibility. Section 8 of Article II of the 1987 Constitution clearly states that:

“The Philippines, consistent with the national interest, adopts and pursues a policy of freedom from nuclear weapons in its territory.”

Elaborating on this provision, Constitutional Commissioner Azcuna (quoted from Bernas, 2003) during the deliberations on the formulation of the Philippine Constitution said:

“I do not have to elaborate, Madame President, the enormous destructive capacity of nuclear weapons, particularly, because Asia had had the distinct misfortune of being the only place in the world where nuclear weapons were dropped and exploded during war. It was not too long ago that Asia and the world commemorated that fateful event. Since the dropping of atomic bombs in Japan towards the end of World War II, the technology of nuclear weapons has multiplied tremendously such that the weapons dropped in Japan are only used as trigger devices for the weapons of today. Those bombs were merely atomic bombs. The bombs of today are hydrogen bombs. Those bombs merely used fission as a principle. The bombs of today use fusion, the very power of the sun – fusion of nuclear particles, releasing tremendous energy...

What we seek to prevent from happening within our land is the occurrence of an uncontrolled nuclear reaction. Why put it in the Constitution? Why not leave it to the

President, why not leave it to the Senate to deal with these matters? Madam President, we are here framing a Constitution. We are here in the part of the Constitution which we call the Article on Declaration of Principles. We say that the Constitution is a reflection of the ideals and aspirations and even the fears, of our people. Then why be silent about this?"

Reading the aforementioned provision in relation to Section 2 of Article II (1987 Constitution) in which the Philippines explicitly renounced offensive war as an instrument of national policy, the elevation of the matter of nuclear weapons to the constitutional level is a significant development. These provisions serve as a strong assurance that the Philippines will never have the ambition to possess or acquire WMD for use in warfare.

The constitutional discussion does not give us a complete picture of the challenges posed by WMD and in particular the possibility that these weapons may be possessed by terrorists operating in our territory. Operatives of the Anti-Terrorism Task Force (ATTF) found manuals on biological warfare in a suspected Jemaah Islamiya camp in the Autonomous Region in Muslim Mindanao. The loss of Radioactive Krypton-84 in an abandoned paper manufacturing plant in Valenzuela City, though not linked to terrorism, support the contention that WMD threats belong on the security agenda.

## Strategic Issues

In planning, the ideal is a strategic vision that guides all efforts within an organization. Otherwise, efforts will be scattered or disorganized. This is not to imply that the Philippines has no strategic vision to guide its security efforts. A survey of security strategies of various administrations reveals that each president has his/her own security strategy reflecting his/her own priorities (San Juan, 2003).

The Quirino administration (1946-1953), pressed with domestic demands to restore peace and order, employed an "Iron Fist" policy against "rebel terrorists"<sup>2</sup>. The administration became infamous for the kidnapping and killing of suspected Huks without due process. President Ramon Magsaysay's "All Out Friendship, All Out Force" policy, resulted in the dismantling of the *Partido Komunista ng Pilipinas*<sup>3</sup> and the destruction of its armed elements in the 1950s. Presidents Garcia (1957-1961) and Macapagal (1961-1965) also employed a Magsaysay-like mix of security strategies in a manner consistent with their respective interests. Marcos (1965-1986) used a strategy that enabled him to stifle domestic opposition while at the same time projecting to the outside world the Philippines' willingness to cooperate in international security regimes. Aquino (1986-1992) had "Oplan Mamamayan,"<sup>4</sup> which coordinated efforts of government agencies to promote national reconciliation, development, and progress in the security field.

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<sup>2</sup> Philippine defense policymakers seldom make clear distinctions between "rebels" and "terrorists." The terms are interchangeably used to refer to rebels who use civilian hostages to evade the military or rebels who intimidate private businesses to extort revolutionary taxes. The military uses the label "CTGs" (Communist Terrorist Group) in official documents true to the adage, *One man's terrorist is another man's freedom fighter*.

<sup>3</sup> *Partido Komunista ng Pilipinas* (PKP) when literally translated in English is Communist Party of the Philippines. In reality, the PKP is different from the present Communist Party of the Philippines (CPP). The former was founded by the Taruc brothers (Soviet inspired communism) while the latter was founded by Jose Ma. Sison (China-inspired communism)

<sup>4</sup> "*Mamamayan*" is a Filipino word for "resident" or "citizen."

Ramos had his own national security strategy, with the social reform agenda (SRA) at its core. Estrada's impatience for results in the negotiations led him to pursue an all-out war policy against rebels/terrorists.

The Arroyo administration has an internal security plan but the closest strategic frame on counter-terrorism that may be of relevance here is the *16 Point Counter-Terrorism Program of the Government*, which contains:

1. Organization of a whole counter-terrorism enterprise and the delineation of clear areas of responsibility and accountability. The Cabinet Oversight Committee on Internal Security (recently organized as the "National Security Cluster") will oversee and supervise the anti-terrorism campaign and shall call upon all government agencies to support its functions and responsibilities;
2. Efficient and effective anticipation of events through intelligence and intelligence fusion, meaning the consolidation and sharing of all overt and covert domestic and international sources of information relevant to the country's response in the war against terrorism;
3. Strengthening of the country's internal focus on terrorism through the active participation of local government units down to the barangay level in the prevention, interdiction and containment of terrorist acts;
4. Cleaning the government of terrorist and criminal coddlers;
5. Holding accountable all private groups abetting or aiding terrorism;
6. Synchronization of internal efforts with the global outlook to be spearheaded by the Department of Foreign Affairs;
7. Combining a policy of tactical counterforce with the set of strategic legal measures. The Department of Justice should set up a special team to serve the special requirements of the war on terrorism including the speedy prosecution, deportation and extradition of suspects;
8. Strengthening the peace process to isolate terrorist groups from the moderates;
9. Pursuit of broader inter-faith dialogues to promote Christian and Muslim solidarity;
10. Recognition of the political, social, and economic underpinnings of terrorism. Under this, the President urged the initiation of special community development projects in areas where extreme poverty makes residents vulnerable to the courtship of terrorist groups;
11. Exercise of the strictest vigilance among all law enforcement agencies and local government units, particularly against the movement of suspected persons, firearms, explosives, raw materials of explosives, toxic materials, and biological materials;

12. Close coordination of preparations and actions in the event of catastrophic terrorist attacks, even if they should be remote;
13. Comprehensive security plan for critical infrastructure including power plants, power transmission and distribution facilities, oil and gas depots, key public works infrastructures, vital communication facilities, public and private buildings and facilities in the nerve center of commerce and industry;
14. Protection of security, welfare, and interests of overseas Filipino workers;
15. Continued modernization of the Armed Forces of the Philippines and the Philippine National Police, taking into consideration the threats of terrorism; and
16. Media support in the implementation of policies and programs in enlightening the public of the rationale behind their actions and in promoting consensus and even constructive criticism.

I believe that the Philippine security framework lacks three strategic imperatives. The first is the most fundamental: a National Security Strategy that transcends the term of the president. The second is the absence of an Anti-Terrorism Law that would not only treat terrorism as a separate crime but would also provide law enforcement a stronger mandate to crackdown on terrorists. The third has to do with a lack of national strategy for disaster or crisis management.

*On the first strategic imperative: Why is a National Security Strategy (NSS) vital to containing terrorist threats and possible possession of WMD?* In a country where many policies depend on the chief executive, a continuing NSS will insulate the country from the whims and caprices of each administration. We should not limit the flexibility of presidential powers to ensure the security of the nation. But, efforts to secure this country are scattered and torn in different directions. Dr. Clarita Carlos (2004) underscored this lack of strategic vision in a comprehensive review of Philippine counter-terrorism efforts. I assisted Dr. Carlos in this assessment of Philippine counter-terrorism programs and we were pleasantly surprised that the findings of our research on the “inchoate” or “indeterminate” character of our strategic outlook on national security were affirmed by the country’s top defense planners.

The existence of duplicative security-related task forces supported our conclusion that the government has wasted time and money to protect this country. There was a time when we had a Task Force for the Security Critical Infrastructure (TFSCI) working independently from an Anti-Terrorism Task Force (ATTF), when the agency-members were the same, and the work assignments were barely different. There are also mini-security task forces within the Philippine National Police (PNP), the Armed Forces of the Philippines (AFP), and the Philippine Coast Guard (which is under the Department of Transportation and Communication). In a task force meeting I attended, even hard-core security specialists have difficulty understanding how security planning works.

A NSS that would exist beyond the term of the president would serve as an indispensable guide for future presidents in crafting security policies. A National Security Strategy would also synchronize diplomatic efforts and domestic efforts to counter threats posed by WMD in the hands of terrorists. The Philippines is a signatory to international conventions/declarations involving nonproliferation and adopts by operation of the Constitution all international agreements consistent with its national interest. However, all conventions/agreements signed will be useless if they are not integrated into a strategic vision to guide the president and her successors.

*The second strategic imperative is the absence of an Anti-Terrorism Law, which would define “terrorism” as a separate crime and provide a framework for the interdiction of terrorist activities.* The Senate and the House of the Representatives have long recognized this problem but fail to agree on which of the pending bills should be passed into law. While the Congress continues to debate anti-terror bills, terrorists are slipping away. A person caught with manuals for biochemical weapons, a document on Jemaah Islamiya, or receipts for wiring terrorist money may only be charged with proposal/conspiracy to commit rebellion or sedition (whichever case applies), which are bailable offenses. If he possesses a handgun, he would be charged with illegal possession of firearms, which is also bailable. Once they are out, they are out permanently. With this mind, one could readily understand the frustration of law enforcement officials.

*The third strategic imperative is an acknowledged problem among crisis/disaster managers in the Philippine Government: the lack of a Comprehensive National Disaster Management Plan.* Aside from the possibility that terrorists have acquired the capacity to procure WMD, we have a nuclear power plant in Bataan that was permanently shut down by the Aquino administration. With the revelation of linkages between homegrown terrorists and international terrorists such as the Jemaah Islamiya, the lack of a Comprehensive National Disaster Management Plan that tackles the problems beyond each presidential administration is disturbing. While finalizing this paper, I was informed by a former colleague in the Presidential Management Staff that they have been doing consultative meetings to improve disaster management capability. It is unfortunate that one suggestion to address domestic preparedness on WMD was not given attention on the ground that the Philippines has no nuclear capability. Again, this is a misapprehension of the new security dynamics.

## **Operational Issues**

Operational issues also complicate the government’s ability to respond to terrorism. I identify four major operational issues that can undermine a domestic response to biological/chemical attacks by terrorists or even accidental use by a nonstate actor.

*The first operational imperative is the tight constraints imposed by the Philippine budget, which makes it difficult for reformers to put forward ideas that would be implemented on a long-term basis.* Taylor (2000) in his paper on domestic preparedness for terrorism using WMD underscored the high costs involved in implementing the U.S. Nunn-Lugar-Domenici Act. This law directs departments and agencies of the federal government to make available to state and local governments training and equipment to respond to acts of terrorism involving the use of



radiological, biological, and chemical weapons. The program costs tens of billions of dollars per year to implement.

A developing country like the Philippines does not have the funds needed to devote to domestic preparedness. Instead of doing something about this, our national leaders seem to have taken a “wait-and-see” attitude. In a country where many people continue to experience poverty and winning elections rests on sound and effective social reforms, one can understand this stand.

A question remains: how long can we remain in this situation? The recent tragedy in the province of Leyte where one whole barangay (community) was buried by mudslides and the grim scenarios in the typhoon-stricken Quezon province, provide us with ominous examples of situations where the government cannot cope in the absence of a clear-cut strategy to meet emergencies. It is worth noting that prior to the Leyte mudslide, many of our national and local leaders could not imagine an incident of this scale. Thus, local and national leaders encountered difficulties mitigating and improving the situation.

*The second imperative is weak inter-agency coordination.* As underscored by Carlos (2004), turf-building or what a ranking military officer described as “tribalism” within the Armed Forces of the Philippines, the Philippine National Police, and other key government agencies undercuts efforts to devise a united response to security problems. Personality differences coupled with the desire for recognition for their expertise is allegedly hampers intelligence-sharing and information-sharing. A complicating factor not underscored in the Carlos paper is the dominance of thinking that the possibility of WMD being smuggled or used in Philippine territory is remote. One can only hope that the recent seizure of documents or manuals for making biochemical weapons has opened the eyes of key security strategists.

*The third operational issue is the failure to maximize existing intelligence resources by the national government and local governments.* At the national level, the uses of intelligence funds are shrouded in mystery. The Office of the President, for instance, has sizable funds available for intelligence purposes. But there is no guarantee that funds are appropriated for public purposes. The presidential security advisers’ refusal to respond to the challenge made by certain opposition leaders to devise control over the use of such funds is counter-productive.

At the local government level, each local government unit (LGU) in the Philippines is allocated a certain percentage of intelligence funds, the uses of which are up to the discretion of local chief executives. Often, this discretion is abused in the sense that “intelligence” broadly construed can encompass practically everything. The justification of local chief executives for the expenditure of these funds could be totally ridiculous (not logically related to “intelligence” as the term is understood in the security circles) yet it nevertheless passes the scrutiny of the Commission on Audit (COA).

*The fourth operational imperative is the lack of technical personnel in the Department of Health with extensive knowledge or appreciation of WMD.* We have an institute on nuclear research but it has been more of an academic institute rather than an institution capable of addressing actual disasters of the nuclear, chemical, or biological type. Though the University of the Philippines (UP) produces world-class molecular biologists and biotechnologists,

chemists/chemical engineers, keeping them in the country has been a huge challenge. Upon graduation, most are immediately employed by multinationals or even by foreign governments. This problem is further compounded by the lack of specialized equipment to deal with WMD. Without external funding, we cannot hope to deal with a chemical or biological attack efficiently.

### **Toward Effective Domestic Response**

This discussion identifies various constraints (political, social, economic) on policymakers that prevent them from anticipating and addressing problems brought about by the possibility of WMD in the hands of terrorists

In a time when vigilance is of paramount importance; it is evident that the Philippines has a long a way to go to bridge the gap between rhetoric and action. The grim images of the Aum Shimrikyo subway attack in Japan is all we need to show the capacity of nonstate actors (terrorists or otherwise) to inflict mass destruction. In terms of viciousness, this Japanese cult is easily matched by the Abu Sayyaf. Both have no sympathy for the lives of innocents. If there is a single lesson I learned at the CSCAP WMD Study Group Meeting/Young Leaders Program it would be that what I have written is not merely a scenario-building/academic exercise, but an urgent matter that requires the immediate attention of our key leaders. The candid recognition of meeting participants of the shifting of the threat from state to nonstate actors is a cause for extra-vigilance.

What concrete measures can we pursue to address this problem? The Philippines must address the following imperatives:

1. Formulation of a National Security Strategy. The government must formulate a strategy that lasts beyond the term of the president. I have been informed that there was such an initiative during the Ramos administration but it was unsuccessful. Nevertheless, we need a framework upon which we can base future activities relating to the security of our country. Otherwise, conflicting priorities will continually drive national security efforts in different directions. To give the NSS permanence, it is suggested that Congress take the initiative in coming up with a legislative enactment for that purpose.
2. Fast-track Passage of the Anti-Terrorism Bill. Congress should no longer delay passage of an anti-terrorism bill considering its great implications on Philippine capacity to interdict terrorists and the threats of biochemical weapons. The president through the Legislative-Executive Development Advisory Council (LEDAC) and the Presidential Legislative Liaison Office should closely coordinate with Congress on the matter.
3. Formulate a Comprehensive Plan for WMD Disaster Management. A legislative enactment regarding domestic preparedness (similar to the U.S. Nunn-Lugar-Domenici Act) is an ideal track. Given the budgetary constraints, our main agencies could at least coordinate and formulate a plan for meeting emergencies relating to WMD. Since the Philippines already has several security task forces dealing with specialized concerns, we should take advantage of this and integrate WMD emergencies into their agenda. The plan should contain the following basic elements.

- 3.1. Inter-Agency Task Force. Either create a new one or make use of existing task forces such as the Task Force on the Security of Critical Infrastructure, whose members are also the key agencies needed to deal with the challenge of WMD. We have only to add the Department of Health (DOH) to aid in formulating responses to chemical/biological attacks. We can also tap experts (molecular biologists and biotechnologists, chemical engineers) from the University of the Philippines, who have been exposed to advanced technical training needed in disaster management of this kind.
- 3.2. Clear-cut Task Delegation. In disasters/emergencies, we usually ask the military in addition to nongovernment organizations to evacuate victims. I envision an entirely different scenario when what is concerned is chemical or biological attack, since dealing with this requires highly technical expertise. We need to know if we are up-to-date in containing such disasters.
- 3.3. Training Personnel. This holds true for disaster or crisis managers but also technical training for dealing with biological or chemical weapons.
- 3.4. Civil Society Participation. Recognizing financial/budgetary constraints, we should tap international nongovernment organizations such as Greenpeace or other NGOs with technical expertise to aid in planning contingency measures.
4. Maximizing International Links to Check Proliferation. As noted earlier, the Philippines has already signed international conventions on WMD nonproliferation and actively participates in ongoing initiatives. The Philippines has already signed intelligence-sharing agreements with neighboring countries Indonesia, Singapore, Malaysia, and Thailand, among others. It is suggested that these links be deepened and broadened to effectively track terrorists in the region. Joint border patrols that already exist may be improved through mutual logistic support agreements.
5. Strengthening Intelligence Coordination. “Turfism” or rivalry among agencies tasked with similar functions, is a reality. If unabated, it will hinder efforts to track terrorist movements and smuggling of chemical or biological weapons. It is time that we explore the possibility of regularly rotating intelligence chiefs of the Philippine National Police, the National Bureau of Investigation, various intelligence units of the Armed Forces of the Philippines, and other agencies with intelligence bureaus. This can minimize agency rivalry and check allegations of graft and corruption (leaking of information for a fee, misuse of intelligence funds etc.).
6. Maximize Use of National and Local Government Intelligence Funds. In the Office of the President, an office for internal control should be created to ensure that funds are disbursed solely for intelligence use. Our constitutional watchdog for the disbursement/use of public funds, the Commission on Audit, can play an enhanced role in monitoring the use of intelligence funds. The auditors should be cleared by the National Intelligence Coordinating Agency to prevent disclosure of highly confidential information.

7. Broaden Perspectives of Defense Policy Makers through Continuing Education. Continuing education of defense planners is important to unlearn obsolete thinking and develop effective and up-to-date responses to terrorist threats.

In closing, I note one caveat I heard during the CSCAP conference: A participant said that we must refrain from discussing the issue publicly to avoid giving terrorists ideas on how to pursue their goals. I disagree with such a naïve notion because it presumes that such ideas have not yet crossed the minds of terrorists. That is a difficult presumption in light of the globalized nature of information nowadays. On the contrary, we must presume that “terrorists,” will choose inhumane warfare.

We must bring the discussion to the domestic level, not to cause alarm but to ensure effective responses. Thinking that security concerns of this magnitude should remain in the realm of the policy makers is obsolete. Broader participation is key.

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# Of the Utility of the Non-Proliferation Regime: The Essential Dialectic between Supply and Demand

By David Santoro

One of the main themes discussed at the third meeting of the CSCAP Study Group on “Countering the Proliferation of Weapons of Mass Destruction in the Asia Pacific” that took place in Singapore on March 26-27, 2006 was how the proliferation problem should be perceived and how it should be addressed. Most participants stressed that the traditional view of the proliferation problem as an essentially *supply*-driven phenomenon is only partially (if at all) relevant today. The implication of this view is that the Non-Proliferation Regime (NPR) is insufficient to address the problem. Instead, the international community should, in their view, strive to deal with the more important question of the motivations of proliferants,<sup>1</sup> suggesting that the proliferation problem is first and foremost a *demand*-driven phenomenon.

I have given considerable thought to this debate: insights on the nature of the proliferation problem are critical to designing an efficient strategy to manage it. The discussions of the CSCAP Study Group allowed me to put my argument into place, which I develop in the present paper.

I begin with a preliminary examination of the emergence of the proliferation problem and of the NPR, in which I stress the regime’s traditional focus on trying to prevent the *supply* of technology because of the initial assumption that proliferation is mostly technologically driven. I then show that the proliferation problem in fact has been revealed to be essentially politically driven. Still, I warn against the temptation to focus exclusively on the *demand* for WMD and disregard the NPR. Instead, I contend:

- that addressing the question of the *demand* for WMD can only follow the identification of the *supply* of technology;
- that, as a consequence, the NPR is key to addressing the proliferation problem, provided it is adapted to current realities.

## **The NPR: A Response to a Problem Assumed to Be Mainly Supply-Driven**

The NPR emerged as a response to the growing “proliferation problem,” conceptualized in 1961 by Albert Wohlstetter’s “N + 1 problem”<sup>2</sup>. This formulation was a way of characterizing, one year after France’s first nuclear test and three years before China’s, the next addition (“+ 1”) to the existing number of nuclear weapons states (“N”).

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<sup>1</sup>While the term “proliferant” refers to a state that seeks to acquire “weapons of mass destruction” (“the customer”), the term “proliferator” refers to a state that sells these weapons (“the supplier”).

<sup>2</sup> Albert Wohlstetter, “Nuclear Sharing: NATO and the N + 1 Country,” *Foreign Affairs*, April 1961.

The “N + 1 problem” assumes that the dynamic behind the spread of weapons of mass destruction (WMD)<sup>3</sup> is likely to be irreversible and ever-expanding. This is vividly illustrated by the element “+” of the concept and by the very choice of the word “proliferation” which, literally, refers to the automatic, linear, and sometimes lightening diffusion of an element in a system, such as the natural reproduction of microbes or malignant cells in the human body. In other words, Wohlstetter asks: “who *will* be the next state to adopt WMD?” The implication is that WMD will be developed by almost every state for which it is or becomes technologically feasible to do so, either because of technological pressure itself (technological determinism) or because of the natural desire of states to promote their own security (realism). This analysis of the proliferation problem was widely shared in the international community of the 1960s. That is why scholars and policymakers alike (namely President John F. Kennedy) downplayed the possibility of nuclear disarmament (and because the Cold War locked two rival blocs into sharp confrontation), and why they predicted that 15 to 20 states, if not more, would possess nuclear weapons by the 1970s, and that number would grow even larger by the late 20<sup>th</sup> century. Subsequently, proliferation was perceived as:

- A global problem: the dynamic of proliferation is a matter of international peace and security. Put differently, the “N + 1 problem” implies that all actors in the international system will face this problem at some stage. Thus, Wohlstetter argued for the proliferation problem to be analysed and addressed in global and systemic terms. Note that this view relates to the literal meaning of the term “proliferation.” Being a natural ever-expanding problem within the system it has become part of, the constant reproduction of microbes or malignant cells cannot be reversed; hence it has to be analysed and addressed as a global problem of that given system;
- An end state: Another implication is that WMD themselves are the actual issue of proliferation. Assuming that technology automatically leads to the development of WMD means that proliferation and proliferants can only be identified as such once these weapons have been developed. Again, this view relates to the literal meaning of proliferation, which usually identifies multiplying microbes or malignant cells once they have actually developed.

In sum, proliferation was initially assumed to be a dangerous problem predominantly caused by the growing *supply* of technology. It echoes French economist Jean-Baptiste Say’s oft-quoted law that “supply creates its own demand.”

As a consequence, dealing with the problem meant denying (or delaying the acquisition of) that technology. Progress toward that objective was achieved by negotiations on nuclear weapons. As an international agreement could only be reached through a bargain between “nuclear haves” and “nuclear have nots,” the response was formulated in the Nuclear Non-Proliferation Treaty (NPT), which was agreed to in 1968 and entered into force in 1970. Under the provisions of the NPT, the Non-Nuclear Weapons States (NNWS) swore not to acquire nuclear weapons (Article II) in exchange for a commitment by the Nuclear Weapons States

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<sup>3</sup> Although the initial weapons of concern were nuclear weapons, biological and chemical weapons, missile delivery systems, and advanced conventional weaponry have become essential to consider when dealing with the proliferation problem.

(NWS)<sup>4</sup> to make progress toward disarmament measures (Article VI), while also cooperating on the use of nuclear materials, technologies, and expertise for peaceful purposes (Article IV)<sup>5</sup>. Moreover, NNWS were granted positive security assurances and negative security assurances: the former guaranteeing them assistance should they be the victims of a nuclear attack and the latter guaranteeing them not to be threatened by nuclear weapons unless they were allied with a NWS.

Despite a few problems,<sup>6</sup> the NPT, together with other elements,<sup>7</sup> has proved relatively successful, creating a powerful global norm against the possession and the use of these weapons. That is why the NPT has usually been referred to as the NPR cornerstone. Similar systems have been designed to respond to the proliferation of biological and chemical weapons as well as to that of missile delivery systems.

### **The Revelation: The Proliferation Problem Is Mainly Demand-Driven**

Four decades since the “N + 1 problem” was coined, the proliferation problem has been shown to follow a much more complex dynamic: it has proved neither irreversible nor ever-expanding, but its latency has been continuous.

A thorough analysis of the number of states possessing WMD reveals that some of them have given up their arsenals and that their spread is by no means inevitable. Today, the proliferation problem now concerns the Middle East, South Asia, and East Asia; in the past, worries focused on Europe, Latin America, and Africa. Over the last 30 years, the number of states seeking nuclear weapons has been smaller than the number of states that decided to abandon them or the associated development programs<sup>8</sup> – and all NWS, with the notable exception of China, have reduced their arsenals. The number of states pursuing biological weapons was high during World War II, lower during the Cold War, and has grown quickly since the mid-1980s.<sup>9</sup> The number of states possessing chemical weapons was high during World War I, lower in the interwar period, increased slightly during the early Cold War, grew more substantially during the 1980s, and is decreasing again.<sup>10</sup> The number of states seeking missile

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<sup>4</sup> The NPT defines the NWS as states that manufactured and exploded a nuclear explosive device prior to Jan. 1, 1967 (Article IX).

<sup>5</sup> The safeguards system of the IAEA (International Atomic Energy Agency), in place since 1958, became the main tool to verify enforcement of the NPT.

<sup>6</sup> The main states to have expressed reservations about the NPT are France, China, Israel, India, Pakistan, Argentina, Brazil, and South Africa. The NPT has struggled with doubts about the diversion of nuclear assets from civilian to military purposes.

<sup>7</sup> The Zangger Committee or the Nuclear Suppliers’ Group, for instance.

<sup>8</sup> While a dozen states, including Sweden, Switzerland, Turkey, Egypt, and Libya pursued nuclear weapons but eventually decided not to acquire them, Belarus, Kazakhstan, Ukraine, Argentina, Brazil, and South Africa had these weapons but gave them up.

<sup>9</sup> For a history of biological weapons proliferation, see Erhard Geissler & Ellis Van Courtland Moon, *Biological and Toxin Weapons: Research, Development and Use from the Middle Ages to 1945*, Sipri Chemical & Biological Warfare Studies, Oxford: Oxford University Press, 1999; and Patrice Binder & Olivier Lepick, “Une histoire des armes biologiques,” “La prolifération des armes biologiques,” *Les armes biologiques*, Paris: Puf, 2001, p. 41-81

<sup>10</sup> For a history of chemical weapons proliferation, see US Congress, House of Representatives, Committee on Armed Services, *Countering the Chemical and Biological Threat in the Post-Soviet World*, Washington DC: GPO, 1993; “Implications of Soviet Use of Chemical and Toxin Weapons for US Security Interests,” Chemical and

delivery systems was high during the Cold War and has declined considerably since its end for most missile types, except for MRBM, cruise missiles, and UAV.<sup>11</sup> Advanced conventional weapons were transferred in large numbers to allies and clients during the Cold War, but these patterns broke down considerably with the fall of the Berlin Wall, although they have surged since 1998.<sup>12</sup> In other words, unlike the exclusive focus on the “+” element of Wohlstetter’s concept, there also turns out to be a “-” element, which suggests that the proliferation problem is much more complex than envisaged. In fact, the proliferation problem is no longer “who *will* be the next state to adopt WMD (“N + 1”)”, but “who *may* be the next state to adopt WMD?”

However, the latency of the proliferation problem continues to spread. In other words, it is the proliferation of WMD capabilities (technologies, materials, expertise, industries), not that of WMD themselves,<sup>13</sup> that has increased steadily since the end of WWII. The globalization of the Industrial Revolution has greatly accelerated the proliferation of WMD capabilities, which are often dual-use technologies (technologies with both civilian and military applications). In the nuclear area, a growing number of states have acquired the technical ability to develop nuclear weapons, essentially because of the spread of nuclear industries and expertise. Many more states are able to develop biological and chemical weapons as the technology, the expertise, the raw materials, and the infrastructures have developed and have become more widely available at lower costs. Similarly, more states have been able to master missile technologies due to the considerable development of production capabilities, trade, and the spread of space industries. The defense industrial base for the production of advanced conventional weapons has also expanded dramatically around the world, allowing more states to build sophisticated weapons<sup>14</sup>. Moreover, in the past, the flow of technology and expertise from the developed to the developing world provided a significant level of control to the former and created some dependence for the latter. Today, those levels have greatly declined due to the globalization of the trading system, resulting in new weapons producers.<sup>15</sup> The latter have become suppliers themselves, usually supplying the rest of the developing world, namely in niche markets in states that have been more or less denied access by traditional weapons suppliers: technology transfers between Pakistan, Libya, Saudi Arabia, China, and North Korea are a good illustration of this

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Engineering News, February 25, 1985; and Claude Meyer, “L’historique des armes chimiques,” “La prolifération chimique,” *L’arme chimique*, Paris: FRS-Ellipses, 1997, p. 15-128 and p. 403-422.

<sup>11</sup> For a history of missile delivery systems proliferation, see Seth Carus, *Cruise Missile Proliferation in the 1990s*, Washington DC: Praeger for the Center for Strategic and International Studies, 1992; Aaron Karp, *Ballistic Missile Proliferation: The Politics and the Technics*, Oxford: Oxford University Press, 1996; and Joseph Cirincione, Jon Wolsthal and Miriam Rajkumar, “Missile Proliferation,” *Deadly Arsenal – Tracking Weapons of Mass Destruction*, op. cit., p. 69-99.

<sup>12</sup> For a history of ACWS proliferation, see Richard Grimmett, *Conventional Arms Transfers to the Third World, 1983-1990*, Washington DC: Congressional Research Service, August 2, 1991; Bates Gill, *Chinese Arms Transfers: Purposes, Patterns, and Prospects in the New World Order*, Westport: Praeger, 1992; Sipri Yearbooks – Armaments, Disarmament, and International Security, Oxford: Oxford University Press, every year since 1992.

<sup>13</sup> For analyses on the proliferation of weapons capabilities, see US Congress, OTA, *Global Arms Trade: Commerce in Advanced Military Technology and Weapons*, OTA-ISC-460, Washington DC: GPO, June 1991; US Congress, OTA, *Proliferation of Weapons of Mass Destruction: Assessing the Risks*, OTA-ISC-559, Washington DC: GPO, August 1993; and *Technologies Underlying Weapons of Mass Destruction*, OTA-BP-ISA-115, Washington DC: GPO, December 1993.

<sup>14</sup> For an analysis on the increased sophistication of weapons developed by the “developing world,” see Brad Roberts, “The Quality Issue,” *Weapons Proliferation and World Order*, op. cit., p. 88-99.

<sup>15</sup> For an analysis on the changing patterns of global arms trade, see Brad Roberts, “Developing Countries as Arms Exporters,” *Weapons Proliferation and World Order*, op. cit., p. 100-108.



phenomenon. Finally, the proliferation of WMD capabilities has also resulted from the collapse of the Soviet Union.<sup>16</sup> Leaving aside the fact that the break-up of the Soviet empire led to three new nuclear weapons states (Ukraine, Belarus, and Kazakhstan) that inherited the Soviet weapons (and quickly transferred them to Russia), the social chaos in Russia since the 1990s has raised serious questions about the command and control of deployed nuclear weapons and the security and safety of WMD and WMD materials stored in Russian military depots. This situation has raised questions about the possibility that former scientists and technicians from the Soviet military-industrial complex might offer their expertise to proliferants. In short, WMD capabilities have proliferated continuously, creating an increasing number of states capable of building WMD thanks to their own industrial infrastructure or to expertise and materials available either domestically or on an international market no longer dominated by a few traditional weapons suppliers. Therefore, the subsequent suggestion is that proliferation has to be perceived as:

- A local problem more than a global one: the dynamics of the proliferation problem is not so much a matter of international peace and security. In other words, contrary to the arguments of Wohlstetter and other analysts at the dawn of the nuclear age, the problem does not really concern all actors in the international system because its scope has proven limited. As a consequence, it should not be analyzed and addressed in systemic terms, but in specific terms because it is more a local than a global phenomenon. In this case, the term “proliferation” is inappropriate to identify the problem here. The reproduction of microbes or malignant cells forces a systemic approach whereas the dynamic of the proliferation problem requires a specific one;
- A process more so than an end-state: the dynamics of the proliferation problem cannot really be seen as an end state. Wohlstetter was incorrect: WMD and WMD systems emerge only as a result of processes. There are many critical qualitative and quantitative steps and thresholds to cross in the so-called “proliferation ladder”<sup>17</sup> and reaching the final stage of proliferation, the development of WMD as such, has not always been thought to be desirable for proliferants. As Thomas Schelling suggested as early as 1976, “until recently, having or not having nuclear weapons appeared to be, and was treated as, a question of yes or no (...) from now on it will make more sense to describe a country’s nuclear weapon status not with a yes or no but with a time schedule.”<sup>18</sup>. Again, note that the term “proliferation” is inadequate here as it refers to the automatic or lightning spread of an element in a system.

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<sup>16</sup> For analyses of the former Soviet Union’s military capabilities, see US Congress, OTA, Proliferation and the Former Soviet Union, OTA-ISS-605, Washington DC: GPO, September 1994; Marco De De Andreis & Francesco Calogero, “The Soviet Nuclear Weapon Legacy”, Sipri Research Report, 1995; Ken Alibek, *Biohazard: The Chilling Story of the Largest Covert Biological Weapons Program in the World Told from Inside by the Man Who Ran It*, New York: Random House, 1998; Joseph Cirincione, Jon Wolsthal and Miriam Rajkumar, “Russia,” *Deadly Arsenals – Tracking Weapons of Mass Destruction*, op. cit., p. 105-140.

<sup>17</sup> The “proliferation ladder” has been identified and defined for a long time. See Lewis Dunn & William Overholt, “The Next Phase in Nuclear Proliferation Research,” *Orbis*, vol. 20, Summer 1976; Lewis Dunn, *Controlling the Bomb*, New Haven: Yale University Press, 1982; Benjamin Frankel, *Opaque Nuclear Proliferation: Methodological and Policy Implications*, London: Frank Cass, 1991, p. 17-18; and Lewis Dunn, “On Proliferation Watch: Some Reflections on the Past Quarter Century,” *The Nonproliferation Review*, Spring-Summer 1998.

<sup>18</sup> Thomas Schelling, “Who Will Have The Bomb?” *International Security*, Summer 1976.

In sum, proliferation has been revealed to be a dangerous problem predominantly caused by the (political) demand for WMD, and not so much by the growing supply of technology.

### **What Role for the NPR?**

As a consequence, Say's law – “supply creates its own demand” – does not apply to the proliferation problem. Does demand create its own supply? If so, why should the international community waste energy on controlling the supply of technology? Why not focus exclusively on the demand for WMD? In other words, why not simply forget about the NPR and address proliferation instances on a case-by-case basis as they occur? After all, one possible conclusion to be drawn from our analysis could be that the NPR is of no use because the process of generating the required technology to proliferate will unfold automatically once the political decisions have been made, especially now that WMD capabilities have been spread around the globe.

Although the proliferation problem is mainly demand-driven, it is incorrect to assume that technology spreads automatically once WMD have been identified as an appealing option, even in a world where WMD capabilities are more widespread than ever. The supply of technology for weapons purposes requires the “recruitment” of an array of allies ranging from military officers, scientists, economists, party leaders, etc. As Steven Flank puts it, the phenomenon does not “spring in isolation from the rest of society (and is therefore) subject to the competition, the ideological shifts, the quest for allies, the publicity consciousness, and all the diverse political processes that characterise any other social activity.”<sup>19</sup> In other words, it is the result of a complex political and social construction that must be promoted. That is why, for instance, the concept of states with “virtual arsenals,”<sup>20</sup> currently in vogue to describe weapons-capable states that have not reached the final stage of proliferation, is not accurate. As Harald Müller rightly points out, this concept “inserts imprecision and confusion into the proliferation debate (because it ignores) the political will, the political culture, the societal support, and the intellectual, technical, and physical infrastructure for making (nuclear) weapons.”<sup>21</sup> The concept of WMD “hedging” appears much more appropriate. By referring to “a national strategy of maintaining, or at least appearing to maintain, a viable option for the relatively rapid acquisition of (nuclear) weapons, based on an indigenous technical capacity to produce them within a relatively short time frame ranging from several weeks to a few years.”<sup>22</sup> this concept includes all the dimensions that the concept of “virtual arsenals” ignores, namely, the fact that supply can only be generated by demand following a long and complex process (described by the word “strategy”).

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<sup>19</sup> Steven Flank, Nonproliferation Policy: A Quintet for Two Violas?, *The Nonproliferation Review*, Spring-Summer 1994.

<sup>20</sup> For analyses of the concept of “virtual arsenals”, see Roger Molander & Peter Wilson, *The Nuclear Asymptote: On Containing Nuclear Proliferation*, Santa Monica: RAND-UCLA-Center for Soviet Studies, 1993 and “On Dealing with the Prospect of Nuclear Chaos,” *The Washington Quarterly*, Summer 1994; James Keeley, “Weapons of Mass Destruction as Mature Technologies,” in David Mutimer, *Control But Verify: Verification and the New Non-Proliferation Agenda*, Toronto: Centre for International and Strategic Studies, York University, 1994, p. 171-179; and Michael Mazarr, “Virtual Nuclear Arsenals,” *Survival*, Autumn 1995.

<sup>21</sup> Harald Müller, “Neither Hype Nor Complacency: WMD Proliferation After The Cold War,” *The Nonproliferation Review*, Winter 1997.

<sup>22</sup> Ariel Levitte, “Never Say Never Again,” *International Security*, June 2002.

As a consequence, it would be a mistake to disregard the process of supply of technologies because, intrinsically, “technologies mirror our societies.”<sup>23</sup> Thus, the deconstruction of how technologies come about and are managed can help us to understand the purpose(s) for which they are intended (peaceful or military), should the political context be taken into account. For instance, paying attention to the technologies acquired and developed by India as well as to its political context allow us to conclude that this country maintained a nuclear “hedging” strategy between 1974 and 1998, meaning that successive governments developed the capacity to assemble weapons while refraining from militarizing them as such until 1998, when they decided to cross the nuclear threshold.

Therefore, the NPR has a central role to play in addressing the proliferation problem. Its mission is twofold:

- Facilitate and control technology transfers: While promoting consensus on the fact that the most sensitive technologies (technologies that are undoubtedly used for military purposes) should be denied from the international market, there should be a general recognition that strategies of denial create problems on two levels. First, it is impossible to deny most technologies because they are dual in nature and because they will eventually reach customers as a result of the globalization of the trading system and the emergence of new sources of supply. Second, strategies of denial do not appear to be promising for the future of nonproliferation as they, in themselves, perpetuate the discrimination between “haves” and “have nots” and therefore nurture a counter-productive sense of injustice. That is why, instead of being used as a system that denies technologies, the NPR should be transformed into a system that *facilitates* and *controls* technology transfers. In other words, for each WMD category, all the relevant actors (state and nonstate actors such as firms and laboratories) should be integrated into a system as open and transparent as possible that facilitates technology transfers while providing a policing structure that puts illegitimate transfers in the spotlight. Only such a shift from technology transfer denial to technology transfer control can offer the NPR the visibility it needs to distinguish technologies meant to be used for peaceful purposes and ones that are not, provided this assessment is made by taking into account each particular political context. Such a system would have detected (and perhaps prevented or at least disrupted) the rapid military built-up of the Iraqi regime in the 1980s for instance;
- Formalize and verify the nonproliferation norm: The NPR should also set a standard against proliferation through various systems (treaties such as the NPT, the BWC, the CWC, as well as initiatives such as the PSI). These systems are of paramount importance because they generate predictable behavior at the international level, which is synonymous with peace and security. Evidently, the ideal solution would be for these systems to be universal, which requires political consensus to be nurtured, especially by the main powers (NWS). One way to achieve universality would be for these states to continue to push for disarmament. When universality is impossible, interim specific regional arrangements can be sought, such as the recent U.S. and French nuclear deals with India, the objective being to bring as many actors as possible into the orbit of the

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<sup>23</sup> Wiebe Bijker and John Law, “General Introduction,” *Shaping Technology / Building Societies: Studies in Sociotechnical Change*, Cambridge: MIT Press, 1992, p. 3

nonproliferation norm. While effective verification mechanisms should be encouraged and reinforced as much as possible, it should be kept in mind that verification can never be guaranteed, hence the importance of processing data according to the contextual circumstances in which they have been found.

In short, proliferation has been revealed to be predominantly demand-driven. Yet, deconstructing the process of the supply of weapons technologies is essential to understanding and detecting the problem. As a consequence, a dialectic between supply and demand suggests that the NPR is of paramount importance to address the proliferation problem – provided it is properly adapted to today's realities and takes into account the political context in which it operates. This doesn't mean that the NPR is an end in itself to manage the problem (as initially thought to be), but it certainly signifies that it is a crucial means to that end.

# Threats to the Global Nonproliferation Regime: Thinking Beyond the Nuclear

By Tamara Renee Shie

North Korea, the Six-Party Talks, A.Q. Khan, the U.S.-India deal, Iran, the Nuclear Nonproliferation Treaty (NPT)...These topics regularly come to mind when thinking of weapons of mass destruction (WMD) and proliferation. They have a common denominator: nuclear weapons. As pervasive as the threat of nuclear weapons has become, however, today the greater threat is probably chemical and biological weapons (CBW). Although nuclear weapons have a far greater destructive capability, there are several reasons that chemical and biological weapons are more insidious: the greater ease in accessing weapon-making materials and manufacturing and disseminating weapons.

Unlike nuclear weapons, the manufacture of CBW does not require sophisticated infrastructure or materials. The perpetrators of the 1995 Oklahoma City bombing that killed 168 people needed only agricultural fertilizer and motor racing fuel. The Aum Shinrikyo cult twice released deadly sarin gas in Japan: the 1994 attack in Matsumoto killed 7 and injured over 200 while the attack on the Tokyo subway in 1995 killed 12 and injured more than 6,000. A combination of funds from their lucrative businesses and a cadre of highly intelligent followers with advanced degrees in applied physics and medicine made it possible for the group to manufacture the chemical agent. Saddam Hussein is known to have used sarin on Kurds in a 1987-1988 campaign that killed at least 5,000 people.

Chemical and biological agents, as well as the methods for preparing such weapons, are far more prevalent than those needed for nuclear weapons. Ricin, a highly toxic biological substance derived from castor beans, is easily extracted from castor-oil manufacturing waste. It is poisonous if inhaled, injected, or ingested. In February 2006 there were two incidents of suspected ricin contagion in the United States – one in a University of Texas dormitory and another in the Dirksen Senate Office Building in Washington, D.C. Further tests in both incidents determined the substance was not ricin. In January 2006 ricin was discovered in a Virginia home. Although allegedly intended to kill the suspect's wife and not for bioterrorism use, the incident highlighted the ease with which the toxin could be produced.

CBW are also relatively easy to transport and disseminate. The deadly letters containing anthrax, which killed five in 2001 (and for which no culprit has been caught), used the U.S. mail to spread the disease. Timothy McVeigh used a truck to transport his bomb to the Murrah Federal Building; Aum Shinrikyo released the sarin gas on Tokyo subway lines. Consider how easily SARS, a previously unknown coronavirus, spread via the international travel of infected persons who had stayed at a Hong Kong hotel in February 2003. Within five months the disease had spread to over two dozen countries, infected over 8,000 people and killed over 800. International commerce and trade was severely affected. If suicidal terrorists released a deadly contagious disease concurrently on several long distance international flights (or even infected themselves with the disease and then traveled), we would have a very serious problem.

When the NPT entered into force in 1970, the role of nonstate actors in proliferation and disarmament had little meaning. But the Sept. 11, 2001 terrorist attacks highlighted the notion that terrorists might attempt to build, buy, or intercept a shipment of WMD or weapons-grade materials and use them in an attack, providing focus on the problem posed by nonstate actors in the global nonproliferation regime. As was noted at the Singapore CSCAP WMD conference, however, the frequent goal of a terrorist attack is fewer casualties and a higher sense of fear. Therefore, chemical and biological weapons would more likely be the terrorists' choice of WMD. It is important to note that terrorists are not the only nonstate actors with potential access to WMD. There are many other nonstate actors such as transnational crime networks (with different goals, methods, and organization from terrorist groups) and even multinational corporations.

### **Steps we can take**

*Strengthen the Proliferation Security Initiative (PSI).* In the words of one senior official involved in the interagency process to create the initiative, the PSI is a good first step in that rather than being based on the premise of states promising not to do something (like stockpile weapons), participating states become party to the arrangement by undertaking "specific actions." Through the interdiction of vessels in ports, territorial waters, airspace, or land, the PSI aims to stem the illegal "transfer or transport of WMD, their delivery systems, and related materials to and from states and non-state actors of proliferation concern." At present about 20 countries take part in joint interdiction exercises (seven such exercises were scheduled in 2005).

Although the recent *2006 National Security Strategy* called the PSI a success, there are issues that need to be addressed. First is the lack of transparency surrounding the initiative – in terms of membership, activities, and successes. Launched in May 2003 with 11 core countries, the PSI membership grew to 18 when Russia joined in June 2004. Since 2004, it would appear the list of PSI members has expanded by only two more countries with some 60 others endorsing the principles. There is confusion over exactly who is a "member," "participant," or "supporter," and what distinguishes the terms. I would define a "member" as a country that has formally subscribed to the principles; a "participant" is a country that may not fully endorse the principles but has taken part in joint interdiction training exercises; and a "supporter" is a country that has agreed in principle to assist with interdiction requests. However, there appears to be no list in the public domain indicating its backers. There is also little indication of how much progress has been made in implementing Principle 2 (which calls for the adoption of "streamlined procedures for rapid exchange of relevant information concerning suspected proliferation activity") and Principle 3 to "review and work to strengthen [their] relevant national legal authorities where necessary." This ambiguity extends to information on previous and upcoming interdiction exercises and alleged real-world interdiction successes.

Such secretiveness (one participant in Singapore likened it to a secret society) does not build international trust and authority. Additionally, there are lingering reservations over the legality of its interdiction principles under international law. In Asia, Japan, Singapore, Thailand, and the Philippines have participated in PSI exercises; however, other Asian countries have been reluctant to take part more formally. In part this is due to the insistence that the PSI is an "activity" and not an "organization." China, for instance, is unlikely to join the PSI as long as

it remains outside of the UN framework, and with China abstaining, other Asian countries are unlikely to join.

As long as the PSI remains a voluntary “activity” that is not institutionalized, it will lack teeth. The initiative has no budget, coordination, or enforcement mechanisms. Participation is dependent on one’s political will and financial ability. When Russia joined in June 2004 ahead of the G8 Summit, it did so provided that the initiative complied with international law and interdiction would not harm its commercial interests. If a country should determine interdiction is not in its best interests, commercial or otherwise, it may simply elect to not participate. Additionally, the Statement of Interdiction Principles fails to codify a process for establishing burden of proof when requesting interdiction action and, as one participant at the Singapore conference noted, it does not identify procedures for paying damages or costs associated with interdictions based on faulty intelligence.

Finally, the PSI is only a measure of final resort. Interdiction is a preventive action that occurs only after the WMD and/or materials have been acquired and are en route to a customer. It does not stop the demand for WMD nor does it target the criminal or terrorist networks that may benefit from the trade. To be truly effective, the PSI (or nonproliferation) activities need to be expanded beyond interdiction.

In an excellent monograph on the PSI, Asian maritime security specialist Mark Valencia suggests the following steps to improve the PSI<sup>1</sup>: change existing international law; adopt a UN resolution or sanctions (such as UN Security Council Resolution 1540); develop a new convention or amend the 1982 UN Convention on the Law of the Sea (UNCLOS) or strengthen the 1988 Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation (SUA); declare that WMD shipments are not a peaceful use of the oceans; obtain NATO endorsement; and continue current efforts to expand the PSI coalition and its supporters. The first three options require that the PSI becomes part of international law and most likely fall under the auspices of the UN.

*Strengthen existing conventions.* There are numerous treaties and organizations to contain the spread and use of nuclear weapons: the list includes the NPT, the Comprehensive Nuclear Test Ban Treaty (CTBT), the International Atomic Energy Agency, and the Treaty on the Southeast Asia Nuclear Weapons-Free Zone. Only a few aim at reducing the spread of chemical and biological weapons. These are the Chemical Weapons Convention (CWC), the Biological Weapons Convention (BWC), and the Australia Group.

One way to improve this situation is to strengthen the CBW. While the CBW is often considered a model nonproliferation convention, the BWC is bogged down in politics. Since the BWC entered into force in 1975 the number of countries possessing or pursuing biological weapons has more than doubled. The BWC lacks verification and legally binding protocols – which were not included in 2001 in large part due to U.S. reservations – and less than 25 percent of states party to the convention participate in the information sharing exchange on an annual basis. In addition, many chemical and biological agents are dual-use in nature (much more so

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<sup>1</sup> Mark J. Valencia, “The Proliferation Security Initiative: Making Waves in Asia,” *Adelphi Paper* 376 (London: International Institute for Strategic Studies, October 2005).

than nuclear materials) with multiple safe applications; also advances in chemical and biological technology raise the stakes involved in access to materials and knowledge. Thus, it is extremely difficult to agree on verification procedures without restricting some research and development activities. It is imperative that the logjam over verification and enforcement mechanisms be overcome or the Convention will become irrelevant. Another option is to strengthen the commitment of organizations to combating the spread and use of chemical and biological weapons. While there are numerous regional nuclear free zones,<sup>2</sup> they do not cover CBW. One solution might be to establish WMD-free zones.

*Support for the Australia Group.* Formed in 1984, the Australia Group specifically focuses on the nonproliferation of CBW and in preventing the transshipment of materials used for such weapons. Like the PSI, it is an informal arrangement without a charter, based on cooperation and consensus on shared nonproliferation goals, not a legally binding arrangement. The Australia Group works toward strengthening and standardizing export controls and on occasion uses warning mechanisms to alert the public to the dangers of proliferation. Like the PSI, the Australia Group is made up primarily by Western nations. It claims only one Asian member – Japan. Again, Asian reservations over a loosely formed organization may be inhibiting them from joining.

*Funding for Scientists and Laboratory Security.* Perhaps the greater threat to the proliferation of WMD is not access to weapons-grade materials, but access to the technical knowledge of how to manufacture and use those materials. Of great concern then are the salaries and employment possibilities for scientists working with chemical and biological agents in developing countries. To reduce that threat, the Nunn-Lugar Cooperative Threat Reduction Program and nonprofit organizations such as the U.S. Civilian Research and Development Program support the transition of foreign scientists working with WMD to nonweapons-related work. However, both programs focus on the scientists of the former Soviet Union. The existence of the A.Q. Khan network demands that such programs have a broader geographical focus and that it include foreign scientists and the security procedures of laboratories where chemical and biological agents are used. Funds and resources in both the U.S. and other countries need to be put to this end.

## **Conclusion**

CBW are a major threat to the global nonproliferation regime. Compared with nuclear weapons, the materials, manufacture, and dissemination of CBW are relatively easier to come by. The U.S. and the international community can take actions to reduce this threat, and in this respect the U.S. should take a leadership role. The first step is not to overlook CBW by focusing predominantly on nuclear weapons. However, CBW are not the greatest threat to global nonproliferation efforts.

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<sup>2</sup> Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Tlatelolco Treaty), Southeast Asia Nuclear Weapons Free Zone (SEANWFZ; Bangkok Treaty), South Pacific Nuclear Free Zone (SPNFZ; Treaty of Rarotonga), African Nuclear Weapon Free Zone (ANWFZ; Pelindaba Treaty), Nuclear Weapons Free Status of Mongolia, and the Central Asia Nuclear Weapon Free Zone (CANWFZ).



Before tackling this topic, I sought the advice and expertise at the National Defense University, asking the same question posed to me – what is the biggest threat to the global nonproliferation regime? Perhaps unsurprisingly, each person had a different answer – from criminal elements in Russia and the Former Soviet Union, selective application of the NPT weakening the overall global regime, increased access to weapons materials and knowhow, and chemical and biological weapons. The topic of chemical and biological weapons seemed a natural choice to discuss because the threat of CBW not only highlighted the issue over the dominance of nuclear weapons in the WMD debate, but also covered other concerns such as nonstate actors, access and knowledge issues, and problems with conventions and regimes.

However, upon examining the responses I came to realize that perhaps the greatest threat to the global nonproliferation regime is not one threat in particular but the wide gap in threat *perceptions*. Chemical and biological weapons are a major threat to nonproliferation; but so are the lowering of knowledge and technical barriers of WMD production, transnational criminal and terrorist organizations, loopholes in the NPT, the diversion of nuclear energy pursuits from nuclear weapons production, and insecurity of the world's transshipment and port facilities, along with many others. Universal agreement on the threats posed by WMD is nonexistent and it is often this failure to agree that leads to inaction. It is not that countries feel that nonproliferation is unimportant, but each country prioritizes WMD threats differently and for many countries such threats fall lower on the list of national concerns than economic development, education, poverty, disease, corruption, etc. Without consensus on threat perceptions – and there will never be complete consensus – there needs to be an understanding of the different calculus each country uses to determine its threat from WMD, the actions it is willing and capable of taking, and how the global nonproliferation regime applies to them. Threat perceptions need to be at the forefront of the nonproliferation agenda.



# The Nuclear Non-Proliferation Treaty: The Regime at Stake

By Alexandra Retno Wulan

The proliferation of weapons of mass destruction (WMD) demonstrates that the Nuclear Non-Proliferation Treaty (NPT) regime is deteriorating: the case of Iran highlights its erosion. It also provides an opportunity to improve the regime. Noncompliance is the biggest threat to the global nonproliferation regime. In this paper, I offer several suggestions to cope with those problems and I assess specific measures that Indonesia can take to contribute to the nonproliferation regime.

## **Noncompliance threats: Iran and North Korea**

In January 2006, Iran reopened a nuclear facilities in Natanz after the IAEA charged that the country had clandestine uranium enrichment programs.

Despite the fact that Iran signed the NPT in 1968, this country is trying to have full-cycle production of nuclear weapons. There are at least three stages that are part of this process. The first stage is uranium mining: Iran has several uranium and plutonium mines to meet its domestic needs. The second stage is converting raw uranium materials into weapons-quality uranium, which includes the process of uranium enrichment. Iran has a heavy-water reactor in Arak and a light-water reactor in Bushehr; Natanz and Isfahan have facilities for uranium enrichment. The third stage is developing a ballistic missile so Iran can deploy the weapon outside the country. Iran has developed the Shahab III and IV, which have a range of 1,300 km, and acquired ballistic missiles technology from Ukraine and other countries. Hence, Iran has the elements needed to complete production of nuclear weapons and should be considered a noncompliant party of the NPT.

The North Korean nuclear case is different from that of Iran, although there are similarities. The IAEA found that the Democratic People's Republic of Korea (DPRK) was noncompliant soon after the DPRK concluded a Comprehensive Safeguards Agreement (CSA) in 1992. Afterward, the DPRK signaled its intent to withdraw from the NPT. The U.S. then negotiated with the DPRK on an "Agreed Framework" in which the United States agreed to deliver two 1,000-Megawatt light-water reactors and supply annually hundreds of thousand of tons of oil in exchange for freezing activities at the DPRK reactors and other fuel cycle activities. The goal was to persuade the DPRK to stay in the NPT and remain compliant with the NPT. However, in 2002, the U.S. found evidence that North Korea was developing an undeclared uranium enrichment program and in 2003 North Korea withdrew again from the NPT. In 2004, North Korea declared that it possessed nuclear weapons.

Both cases have shown countries ready to defy the NPT regime. This will lead to the failure of the regime since there is no means to get parties to abide by the NPT. There is no way to compel states to honor their commitments or to deter violations. An arm race appears inevitable.

## Controlling Supply & Demand

The NPT recognizes five nuclear weapons states (NWS); others are considered to be non-nuclear weapons states (NNWS). Improving the nonproliferation regime requires work by both nuclear states (supply) and nonnuclear ones (demand).

From the supply side, there are at least four improvements that can be made to the NPT regime. First, it is important to review the status of India, Pakistan, and Israel as new nuclear states. There is no use denying that these countries have developed nuclear weapons, therefore, it would be more fruitful if NWS responsibilities are ascribed to them.

Second, it is important to implement and strengthen the no first use principle. This will reduce the strategic value of nuclear weapons. In addition, NWS can assure the international community that they will not initiate any use of these weapons.

Third, it is important to prevent the proliferation of WMD – weapons, delivery systems, or materials – to nonstate actors, such as terrorist groups. It is predominantly the responsibility of nuclear weapons states to control the distribution of weapons, both to nonnuclear states and nonstate actors.

Finally, it is important to enhance the capacity and capability of the IAEA as the exclusive verification institution. There are at least three components that need work: technology, authority, and legal bases. Technology is important especially to identify any clandestine program. Priorities include satellite identification of uranium enrichment or other related technologies. Authority and legal bases are closely related. It is important to enhance the authority of the IAEA so it can investigate concerns about illegal nuclear programs. Accordingly, it is also essential to give the IAEA a solid legal base for every action that it might take.

On the demand side, there are four important aspects. First, it is important to enhance ways to deter countries from developing nuclear programs. For instance, this can include efforts to show nonnuclear countries that nuclear technology is expensive and difficult, especially given the need to focus on the welfare of a country. There are extra costs that also have to be considered by any state before developing a nuclear program, such as ecological costs, the possibility of international sanctions, or even being branded a criminal by the international community.

The second aspect is the lesson from Iraq. Saddam Hussein tried to create the perception that Iraq had nuclear weapons; that perception led to a U.S.-led military attack. Thus, this case showed that “having” nuclear weapons is not beneficial but is, on the contrary, very costly to a country.

The third aspect is adoption of the principle that not every country should have a full-cycle production and that complete transparency should be required. These principles will assure that every country has the right to develop a nuclear program for peaceful purposes. At the same time, they also guarantee that the international community can follow and scrutinize the peaceful program of every country.

The fourth aspect is building nuclear free zones at the regional level. It is important to halt the transfer of nuclear weapons, their delivery systems, and materials by strengthening nuclear free zones at regional level.

### **Indonesia's Contribution**

Recently, the Indonesian government refused to join the Proliferation Security Initiatives (PSI). There are at least three arguments for this. The first is that PSI will damage Indonesia's sovereignty. Second, the PSI is not a multilateral effort. Third, the PSI is not in compliance with the Law of the Sea Convention of 1982.

I believe that this is the appropriate decision for Indonesia because control of the seas is critical to Indonesia. The United States, the most dominant actor in the PSI, has not ratified the Law of the Sea Convention of 1982. Thus, it will be difficult for it to acknowledge the concept of archipelagic state – a key concept for Indonesia. Therefore, it is understandable that PSI is considered a threat to Indonesian sovereignty. In addition, Indonesia cannot support any action that is not truly multilateral. Clearly, the role of the UN needs to be improved and a multilateral framework at this level should be put under the UN. Indonesia should also focus on Southeast Asia. It makes more sense to build on the nuclear weapon free zone as no one in the region has developed nuclear weapons. As an example, Indonesia should propose a mechanism to support the Southeast Asian Nuclear Weapons Free Zone. This agreement could compel more responsibility, sanctions, and joint cooperation among Southeast Asian countries. For example, Indonesia can persuade all states in the region to ratify Additional Protocols to the NPT.

WMD proliferation is one of the most important issues for the international community. The failure of the NPT regime is a significant threat for all states. It is essential that the international community reconstruct and improve the global nonproliferation regime for perpetual peace.



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