



Original Article

Nuclear Deterrence in Asia and the Pacific

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Abstract

The Asia Pacific region includes six of the world's nine nuclear-armed states, and in all of them relevant policymakers, still caught in a Cold War mindset, continue to believe in nuclear deterrence as a force for peace and stability, perceiving nuclear disarmament to be not only unachievable, but undesirable. But—whether the context is major powers seeking to neutralise threats from each other (United States, Russia, China and India), non-nuclear allies seeking nuclear protection from various threat contingencies (Japan, South Korea and Australia) or vulnerable states seeking a 'strategic equaliser' (Pakistan and North Korea)—the traditional strategic arguments for nuclear deterrence are much weaker than they may first seem. Whatever may have been the case for the Cold War years, in today's world the risks associated with the acquisition or retention of nuclear weapons far outweigh any conceivable

utility they may have. The financial arguments against them—that they are indefensibly costly—are strong. And the humanitarian arguments are overwhelming: nuclear weapons remain the most indiscriminately inhumane ever devised, and they should be outlawed as chemical and biological weapons have been. Making disarmament happen will never be easy, but—with the right political leadership—is not impossible. Focusing, realistically, in the first instance on minimization rather than elimination, practical steps can be taken to dramatically reduce nuclear weapon numbers, deployment and alert status, and doctrinal reliance on them. Doing so would dramatically reduce, both regionally and globally, the now ever-present risk of nuclear catastrophe.

Key words: Asia, Pacific, nuclear, deterrence, disarmament

1. The Issues

Old habits die hard, and habits of thought about nuclear deterrence die harder than most. Ideas formed in the Cold War years have proved just as tenacious in Asia and the Pacific as in their Euro-Atlantic birthplace, despite all the fundamental changes since then in the geopolitical environment. 'Asia and the Pacific', however defined, includes six of the world's nine nuclear-armed states—the United States, Russia, China, India, Pakistan and North

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Korea¹—excluding only the United Kingdom, France and Israel. Among relevant policy-makers in all of them the belief remains strong that nuclear deterrence works as a force for peace and stability, and that for that reason nuclear disarmament may be not only impossible but undesirable. Nuclear weapons may be the most indiscriminately inhumane ever devised, and the humanitarian case may be overwhelming for them being outlawed, as chemical and biological weapons have been. But unless and until policy-makers stop seeing nuclear weapons as useful, there will be no serious prospect, regionally or globally, of their elimination.

All the issues with which policy-makers and analysts have long wrestled in the context of the struggle between the United States and Soviet Union—about the utility of nuclear weapons in preserving peace between the major powers, and inhibiting attacks on lesser ones—have echoes throughout this region. And all the reasons which—for better or worse—have led nuclear-armed states to acquire and retain their weapons, and resist any serious move to eliminate them, resonate here at least as much as they do in Atlantic and Middle Eastern contexts.

Belief in the deterrent role of nuclear weapons may not be the *only* reason why states acquire and retain nuclear weapons, and are reluctant to pay more than lip-service to the objective of eliminating them. For some states, considerations of status and prestige have been and remain very important. India is most often seen as the state for which this factor was crucial in its initial decision to acquire nuclear weapons—weighing at least equally with its concern to neutralise a possible nuclear threat from China. Russia—along with France and

the United Kingdom—are most often seen as the states for which the psychological pain of ultimately giving up their nuclear weapons would now be most acute.

It may also be that a key strategic motive, beyond deterrence, for acquiring or retaining nuclear weapons is compellence, with a state believing that nuclear weapons offer it advantages in persuading adversaries to make concessions or change their behaviour. There is a quite widespread perception that nuclear weapons can dramatically increase a state's coercive bargaining power, not least in warnings from Washington policy-makers over the years that adversaries like North Korea—and Iran and Iraq—would be able to 'blackmail' the United States and its allies if they obtained nuclear weapons. Speculative commentary abounds in the literature about leaders being more likely to capitulate in a diplomatic confrontation if faced with a nuclear-armed adversary, even if the nuclear threat is only implicit. But there is in fact little or no evidence to back up any such conjecture. And most practitioners would be unpersuaded that that any nuclear-armed state in this region, or anywhere else, would be willing to break the international normative taboo—discussed further below—against the aggressive use, or threat of use, of such weapons which unquestionably now exists.²

So, for practical policy purposes, it is the perceived deterrent utility of nuclear weapons, rather than other possible motives, which remains at the heart of the explanation as to why states have and retain nuclear weapons, and it is this issue above all others which has to be addressed if the case for their elimination is ever to gain traction.

When it comes to new thinking about nuclear deterrence, the current strategic environment in Asia and the Pacific is both a challenge and an

1. The description of North Korea here as 'nuclear-armed' simply acknowledges that it now possesses a stock-pile, albeit very small, of nuclear explosive devices, and some missile delivery capability. It does not imply that other states do, or should, treat it in the same way as they do the five recognised nuclear-weapons states under the Nuclear Non-Proliferation Treaty (NPT) (United States, Russia, China, France and United Kingdom) or the three other established nuclear-armed states (India, Pakistan and Israel) who, unlike North Korea, were never party to the NPT.

2. See Sechser T S, Fuhrmann M (2013) Crisis Bargaining and Nuclear Blackmail. *International Organization* 67, 173–95. This comprehensive quantitative analysis of over two hundred interstate crisis situations, involving both nuclear and non-nuclear states and military threats both express and implied, found no statistically significant basis for concluding that nuclear weapon possession (or superiority) was associated with more effective compellent threats.

opportunity. The scale of the challenge is obvious. The extraordinarily rapid economic and military rise of China, the United States' apparent unwillingness to yield any of its established authority in the region in response, Russia's newly reassertive nationalism, the repeated provocations by North Korea and the reactions they have generated in South Korea and Japan, and the continuing inability of India and Pakistan to achieve any kind of comprehensive rapprochement have all created strategic uncertainty. Multiple and unresolved territorial disputes exist, most immediately dangerously in the South China Sea and East China Sea, but also over Taiwan and on the China–India border. Military capabilities are growing, including nuclear weapons stockpiles in the case of Pakistan, India and China, and new conventional power projection and missile defence capabilities in the case of the United States. Overall, tensions are growing, not decreasing.

The opportunity for new thinking may be less obvious than these challenges, but in a sense it flows from them. Complacent assumptions about continuation of the early post-Cold War dynamics, with the United States enjoying comfortable primacy and nuclear confrontation seen as yesterday's problem, no longer apply. It is exactly the right time for the nuclear armed states to be asking themselves whether their weapons stockpiles—and the doctrines and deployment postures that go with them—are diminishing or adding to these tensions, and whether the risks of reliance upon them outweigh any possible returns. In President Barack Obama the United States has a leader committed both intellectually and emotionally to a nuclear weapons free world, as movingly demonstrated in his April 2009 Prague speech, and repeated in Berlin in 2013.³ And the emergence of new political leadership in a number of key countries—most

importantly China—may make it easier for new approaches to gain momentum.

The following sections first describe the nature and extent of the current reliance on nuclear deterrence by key states in the region; second, revisit the case for nuclear disarmament, focusing particularly on whether the traditional arguments for nuclear deterrence still deserve to carry the policy weight they do; and third, suggest what might now most usefully be done by the relevant state actors to translate into effective policy action the compelling humanitarian, financial and strategic arguments that can be made against nuclear deterrence and in favour of nuclear disarmament.⁴

2. Current Reliance on Nuclear Deterrence

Nuclear deterrence is not a one-size-fits-all concept. The nuclear capabilities, intentions and attitudes of the key state actors vary considerably, and need to be described individually. The most that can be said in general terms is that there are three different contexts within which each makes its decisions. For the major powers in the region, the utility of nuclear deterrence is seen primarily to lie in neutralising potential threats from others of that stature (as with the United States and Russia, United States and China, Russia and China, and China and India). For lesser powers allied to a major one, it is seen to lie in their acquiring nuclear protection against a variety

4. This article draws on, while not purporting to comprehensively review, the relevant scholarly literature, which is vast in scope and depth both on nuclear policy generally and the geopolitics of the region. It also draws substantially on the author's experience as a policy practitioner—as a long-serving foreign minister, head of an international non-governmental organisation focused on conflict prevention, and initiator, member or co-chair of a series of major international commissions and panels addressing nuclear issues. The author gratefully acknowledges research input and advice from colleagues associated with the Centre for Nuclear Non-Proliferation and Disarmament at the ANU Crawford School of Public Policy (CNND), and fellow members—all with high-level political, military or diplomatic experience—of the Asia Pacific Leadership Network on Nuclear Non-Proliferation and Disarmament (APLN).

3. Remarks by President Obama: Hradcany Square, Prague, Czech Republic, 5 April 2009 at http://www.whitehouse.gov/the_press_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered, and Brandenburg Gate Berlin, June 19, 2013, at <http://www.whitehouse.gov/the-press-office/2013/06/19/remarks-president-obama-brandenburg-gate-berlin-germany>

of threat contingencies without having to acquire nuclear weapons themselves (as with the 'extended nuclear deterrence' offered by the United States to Japan and South Korea, and less explicitly to Australia and others). For lesser powers without such formal protection, or lacking confidence as to how far the support of a traditional friend will reach, their acquisition of a nuclear deterrent is seen as providing a strategic equaliser against much stronger potential adversaries (as with Pakistan against India), or at least as raising the pain threshold high enough to force would-be regime changers, territory-acquirers or punishers to think again (as with North Korea).

2.1 United States

The United States had at the end of 2012 some 1,700 strategic and 200 tactical nuclear warheads operationally deployed, and another 2,750 of both in reserve, with delivery systems extending across the whole land-sea-air triad.⁵ The stated purpose of this arsenal is 'in extreme circumstances to defend the vital interests of the United States or its allies and partners'.⁶ It is buttressed by huge conventional military capability—with US military expenditure continuing to account for 40 per cent or more of the world total⁷—which is now being further reinforced by the development of ballistic missile defence (BMD)⁸ and new generation conventional strike capability, especially the long-range Conventional Prompt

Global Strike program.⁹ Despite these resources being more than adequate to deal with any conceivable threat contingency to itself or its allies for the foreseeable future, the United States has not embraced a 'No First Use' nuclear posture¹⁰; nor has it been prepared to adopt, as a fall-back, a 'sole purpose' declaration—viz. 'a universal policy that deterring nuclear attack is the sole purpose of nuclear weapons'—although it has pledged 'to work to establish conditions under which such a policy could be safely adopted'.¹¹ That said, the United States has significantly reduced its nuclear arsenal since the height of the Cold War, is not building any new generation nuclear weapons, has been a willing participant in nuclear arms reduction negotiations, and has under President Obama embraced the complete elimination of nuclear weapons as an ultimate objective.

2.2 Russia

Russia has a comparably sized nuclear arsenal—with some 1,800 strategic warheads deployed and another 700 in reserve, and 1,000 tactical warheads in reserve, again across the whole delivery triad—but places more comparative reliance on nuclear weapons than does the United States in its defence and security policy. The erosion over time of its once-great conventional capability, distrust of North Atlantic Treaty Organization (NATO) enlargement, and the drumbeating nationalist political style of President Putin, have all been important contributing factors to this position.¹² Russia is engaged in significant modernisation of both its nuclear and conventional

5. For these and all other weapons figures cited see Thakur R, Evans G (eds) (2013) *Nuclear Weapons: The State of Play*, pp 18–19. Crawford School Centre for Nuclear Non-Proliferation and Disarmament, Australian National University, Canberra. This incorporates latest Stockholm International Peace Research Institute (SIPRI) data as at December 2012.

6. United States Department of Defense (2010) *Nuclear Posture Review Report*, p 16.

7. SIPRI (2012) *SIPRI Yearbook 2012: Armaments, Disarmament and International Security*, p 152. Stockholm International Peace Research Institute, Oxford University Press, Oxford.

8. Rinehart I, Hildreth S, Lawrence S (2013) *Ballistic Missile Defense in the Asia-Pacific Region: Cooperation and Opposition*. Congressional Research Service, Washington DC, <http://www.fas.org/sgp/crs/nuke/R43116.pdf>.

9. Woolf A (2013) *Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues*. Congressional Research Service, Washington DC, <http://www.fas.org/sgp/crs/nuke/R41464.pdf>.

10. Perkovich G (2013) *Do Unto Others: Toward a Defensible Nuclear Doctrine*. Carnegie Endowment for International Peace, Washington DC, <http://carnegieendowment.org/2013/04/01/do-onto-others-toward-defensible-nuclear-doctrine/fvbs#>

11. United States Department of Defense (2010) *Nuclear Posture Review Report*, p. viii.

12. Browne D, Ischinger W, Ivanov I, Nunn S (2013) *Building Mutual Security in the Euro-Atlantic Region*,

capability, and will not commit to 'No First Use': its stated posture is that 'Russia reserves the right to use nuclear weapons in response to the use of nuclear and other types of weapons of mass destruction against it or its allies, and also in case of aggression against Russia with the use of conventional weapons when the very existence of the state is threatened'.¹³ Since the 2010 New START treaty agreement to reduce both sides' deployed strategic weapons, it has been unwilling to engage in further nuclear arms reductions negotiations with the United States—on the basis that Washington's BMD and long range conventional weapons programs have more to do with undercutting strategic stability and Russia's security than countering rogue states and terrorists, and that Russia needs all its tactical nuclear weapons to offset NATO's (and, though this is not stated explicitly, China's) superiority in conventional forces, and to deter other nuclear armed states within range of Russian territory.¹⁴ And de-alerting of the nearly 2,000 Russian and US deployed warheads still set at dangerously high launch-on-warning status remains hostage to stated Russian fears that its second strike retaliatory capability (heavily deployed in static locations) is vulnerable to US counterforce superiority.

2.3 China

China's nuclear arsenal is much smaller. While some Russian and other sources argue for much higher numbers, the consensus of

Western governments and scholars is that it had at the end of 2012 no more than around 200 deployed nuclear warheads, with another 40 in reserve. While a substantial program of modernisation is under way, and some increase in these numbers can be expected, China seems committed to a minimum deterrence posture, and to continuing its long-standing policy that it 'will not be the first to use nuclear weapons at any time and under any circumstance, and unequivocally commits that under no circumstances will it use or threaten to use nuclear weapons against non-nuclear weapon states or nuclear weapon free zones'.¹⁵ Its warheads are primarily land based, increasingly mobile both by road and inside an extensive system of underground tunnels to enhance their survivability, and intended to be increasingly submarine based for the same reason.¹⁶ China, like Russia, expresses concern that its second-strike capability is vulnerable to US conventional superiority, particularly with the further development of BMD and long-range weapons (and with these concerns multiplied by Washington's 'pivot' to Asia announced in 2011) and says it cannot be expected to engage in arms reduction talks while these uncertainties continue. Beijing remains resolutely non-transparent about the size and deployment of its arsenal, saying only that it is premised on three needs: to be survivable, to have penetrability and to deter—with deterrence in China's case best ensured, unlike for the two major nuclear powers, by uncertainty rather than certainty as to the extent of its capability.¹⁷

p 11. Nuclear Threat Initiative, https://www.nti.org/media/pdfs/BMS_Long_Report_FINAL.pdf

13. Military Doctrine 2010, <http://www.scrf.gov.ru/documents/33.html> (in Russian). Presumably Russia's 'allies' for this purpose are the Collective Security Treaty Organization members (Armenia, Belarus, Kazakstan, Kyrgyztan and Tajikistan), but the concept of an extended nuclear deterrence umbrella does not seem to have the same salience here as it does for the US's Asian and European allies See further Trenin D (2005) Russia's Nuclear Policy in the 21st Century Environment, p.15, IFRI Proliferation Papers, http://www.ifri.org/files/Securite_defense/prolif_paper_Trenin.pdf

14. Arbatov A (2013) The US-Russia Reset Four Years On: State and Challenges. European Leadership Network (ELN), <http://carnegieendowment.org/2013/03/25/us-russia-reset-four-years-on-state-and-challenges/fx75>

15. 'China's National Defence in 2010', Information Office of the State Council of the People's Republic of China, quoted—with other sources—in Centre for Strategic and International Studies (2013) *Nuclear Weapons and U.S.-China Relations: A Way Forward*, p.11. Centre for Strategic and International Studies, Washington.

16. Acton J (2012) The Dragon Dance: US-China Security Cooperation. In Mathews JT (ed) *Global Ten: Challenges and Opportunities for the President in 2013*, Carnegie Endowment for International Peace, Washington DC; CSIS (2013) *Nuclear Weapons and U.S.-China Relations: A Way Forward*, p. 28. Centre for Strategic and International Studies, Washington.

17. As articulated by Major-General Yao Funzhun of the Academy of Military Science, China, in speech to the 2013 Carnegie International Nuclear Policy Conference, Washington DC, 8 April 2013 (author's note).

2.4 India

While not forthcoming about its numbers, India is believed to have 80–100 deployed warheads, until now land and air based but with a developing submarine capability. Its arsenal, like Pakistan's, has doubled in the last decade and continues to grow, primarily to maintain an effective deterrent in relation to China, but also with an eye to Pakistan, which is strongly committed to expanding its now comparably sized stockpile. India's decision to move to fully nuclear-armed status in 1998 appears to have given less attention to the prospect of Pakistan following suit¹⁸ than it did to a combination of concerns about China (with memories still long of the 1962 border war) and considerations of national prestige and power projection—the desire to be recognised as an international actor of comparable weight to the permanent members of the UN Security Council. India has been from the outset, and remains, highly ambivalent about its nuclear status: on the one hand, strongly attached to the idea of a nuclear weapon free world (and to the 1988 Rajiv Gandhi Action Plan as a guide for getting there),¹⁹ but on the other hand, strident in its resistance to the Nuclear Non-Proliferation Treaty (NPT) as 'unequal' and unwilling to take any step towards disarmament that might be perceived as increasing its security vulnerability or reducing its international authority. All this is reflected in its relatively modest overall nuclear posture, which is based on credible minimum deterrence, and embraces 'No First Use' (albeit maintaining the option of retaliating with nuclear weapons

18. While it stretches credulity that Indian policy-makers could have been ignorant of, or indifferent to, the extent of Pakistan's nuclear capability in 1998, this is the strong view of one prominent Pakistani participant in high-level discussions at the time: see Hoodbhoy P (2013) Scientists and an atomic subcontinent. *Bulletin of the Atomic Scientists*, 12 February 2013, <http://thebulletin.org/scientists-and-atomic-subcontinent>; Hoodbhoy P (ed) (2012) *Confronting the Bomb: Pakistani and Indian Scientists Speak Out*, Oxford University Press, Pakistan.

19. Sethi M (2013) Identifying Principles for a Nuclear Weapons-Free World: The Rajiv Gandhi Action Plan as a Relevant Guide. *Nuclear Abolition Forum* 2, 23–8.

in the event of a major attack by biological or chemical weapons').²⁰

2.5 Pakistan

Pakistan has 90–110 warheads, is expanding its arsenal as fast as it can, and not only planning, like India, to send nuclear weapons to sea, but testing short-range weapons designed for battlefield use, to counter India's conventional military advantage. Islamabad is quite unambivalent about its nuclear capability. It does not accept 'No First Use', sees its nuclear weapons as not only a political instrument but a matter of military necessity, has been enraged at its perceived unequal treatment by the international community as compared with India (in the context of the US-led decision by the Nuclear Suppliers Group to allow India access to nuclear technology and material), and has shown no inclination to match disarmament rhetoric with action. In particular, it plays an active role in blocking, at the Conference on Disarmament in Geneva, even the commencement of negotiations on a treaty to stop future production of fissile material for use in nuclear weapons, arguing that if existing stockpiles are not also addressed, inhibiting future production would endanger its security.²¹

2.6 North Korea

Since confirming its withdrawal from the NPT in 2003, North Korea has been actively developing and testing nuclear weapons and missile delivery systems, and is assessed to have enough fissile material for 4–12 weapons,

20. Prime Minister's Office Press Release (4 January 2003) Cabinet Committee on Security Reviews Progress in Operationalizing India's Nuclear Doctrine <http://pib.nic.in/archieve/lreleug/lyr2003/rjan2003/04012003/r040120033.html>

21. See generally Dalton T, Tandler J (2012) Understanding the 'Arms Race' in South Asia, The Carnegie Papers, Carnegie Endowment for International Peace, September 2012, Washington DC, <http://carnegieendowment.org/2012/09/13/understanding-arms-race-in-south-asia/dtj0>; Krepon M (2012) Nuclear Race on the Subcontinent. *The New York Times*, 4 April 2012 http://www.nytimes.com/2013/04/05/opinion/global/nuclear-race-on-the-subcontinent.html?_r=0

depending on warhead design and yield. It has also been steadily hardening its formal doctrinal commitment to nuclear-armed status, most recently with the announcement in March 2013 of the 'Pyongjin Line', which calls for the parallel development of nuclear weapons and economic expansion.²² The Six Party Talks, convened since 2003 by China (involving the United States, South Korea, Japan and Russia along with North Korea) have so far made no progress in achieving denuclearisation, with the situation complicated by Pyongyang regularly adopting a posture of extreme belligerence and threatening the United States and its allies with war, albeit always in the context of perceived threats to its own regime, or in wounded response to the application of ever more international sanctions in response to previous behaviour in defiance of international sanctions. By and large North Korea's provocations have been met with reasonable calm, on the assumption that even if it developed the necessary capability it would stop short of an inevitably suicidal nuclear attack. But the situation remains volatile and the prospect not remote of serious miscalculation generating a major confrontation.

2.7 South Korea

Belief in nuclear deterrence remains very strong, and in the context of North Korea's serial misbehaviour there has been evident continuing public support in South Korea for some form of domestic nuclear weapons program,²³ with at least one major political figure, former Presidential candidate Chung

22. Pinkston, D (2013), *Sŏn'gun Korea's Military First Ideology and the Pyŏngjin Line*, unpublished International Crisis Group presentation to CACDA Arms Control and Strategic Stability Symposium, Beijing, 9 August 2013. For some flavour of the complexities, contradictions and variability of the North Korean position see Noland, M (2013), *Are North and South Korea Back in Business?*, Council on Foreign Relations, August 2013, <http://www.cfr.org/north-korea/north-south-korea-back-business/p31232>

23. Jiyeon K, Friedhoof K, Chungku K (2013) *The Asan Public Opinion Report- February 2013* http://asaninst.org/eng/03_publications/report_detail.php?seq=100468&ipage=1&nums=1&ca=0

Mong-Joon, arguing in favour not only of the reintroduction of US tactical nuclear weapons withdrawn from local soil in 1991 but of South Korea building its own nuclear arsenal.²⁴ But there is no support from the new Park Geun-hye administration for either course, and the United States will rebuff any such move as firmly as it stopped South Korea's initial steps towards becoming a nuclear power four decades ago. The price for that South Korean forbearance, however, is likely to continue to be US willingness to protect it from all major threat contingencies, as it is obliged in broad terms by the 1954 Mutual Security Treaty to do, and has made clear on many subsequent occasions that it will. The question remains whether this extended deterrence commitment needs itself to have a nuclear component. In the context of the 2009 US Nuclear Posture Review (NPR), South Korea—like some of Washington's NATO allies in Central and Eastern Europe—resisted strongly limiting nuclear responses only to nuclear threat contingencies. But this issue will need to be revisited if there is to be any serious move towards reducing the salience of nuclear weapons in security doctrine, and nuclear disarmament itself, in the years ahead.

2.8 Japan

Voices in Japan in favour of developing nuclear weapons or stationing them on Japanese soil are much more muted than in South Korea, because of the continuing resonance in the national political culture of Hiroshima and Nagasaki, but it should not be assumed they do not exist. Concern is strong about both North Korea and China as potential threats—the latter particularly since the confrontation in the East China Sea over the Senkaku/Diaoyu Islands—and there is, despite all the abundant anti-nuclear rhetoric—a strong attachment not

24. Speech at the 2013 Carnegie International Nuclear Policy Conference, 8 April 2013, Washington DC (author's note); Sanger D (2010) *In U.S., South Korean Makes Case for Nuclear Arms*. *The New York Times*, 10 April 2010, <http://www.nytimes.com/2013/04/10/world/asia/in-us-south-korean-makes-case-for-nuclear-arms.html?ref=davidesanger>

only to US extended deterrence, guaranteed by the 1960 Treaty of Mutual Cooperation and Security and in many subsequent communications but to extended *nuclear* deterrence. DPJ Foreign Minister Katsuya Okada told the US administration in 2009 that Japan did not demand in this context any commitment conflicting with the goal of a world without nuclear weapons, but subsequent LDP administrations have been reluctant to go even this far.²⁵ Former UN Under-Secretary-General for Disarmament Affairs Nobuyasu Abe has rightly described as ‘paradoxical’ and a ‘dilemma’ Japan’s long-standing passion for both sheltering under a nuclear umbrella and nuclear disarmament.²⁶

2.9 Other US Allies

There are other US allies and partners in Asia and the Pacific which shelter under its nuclear umbrella with varying degrees of certainty in its availability and conviction as to its necessity. Australia, a beneficiary under the ANZUS Treaty of a formal commitment, like that given to South Korea and Japan, that in the event of an armed attack the United States would ‘act to meet the common danger’,²⁷ has assumed that a nuclear threat or attack would result in a nuclear response, and said as much in successive Defence White Papers,²⁸ although no confirmation of this from the United States has

25. See Thakur R, Evans G (eds) (2013) *Nuclear Weapons: the State of Play*, p.48. Centre for Nuclear Non-Proliferation and Disarmament, Canberra. This followed strong advocacy in favour of the United States and its allies supporting at least a ‘sole purpose’ posture: see ICNND (2009) *Eliminating Nuclear Threats: A Practical Agenda for Global Policymakers*, paras 17.28–32. International Commission on Nuclear Non-Proliferation and Disarmament, Canberra.

26. Abe N, Tosaki H (2013) Untangling Japan’s Nuclear Dilemma: Deterrence before Disarmament. *Nuclear Abolition Forum* 2, 34–9

27. ‘Each party recognises that an armed attack in the Pacific Area on any of the Parties would be dangerous to its own peace and safety and declares that it would act to meet the common danger in accordance with its constitutional processes’ (ANZUS Treaty, 1951, Article IV).

28. For example, ‘We will continue to rely on the extended deterrence of the US nuclear capability to deter any nuclear threat or attack on Australia’: Department of Defence (1994) Defence White Paper: *Defending Australia*

ever been on the public record.²⁹ In 2010, importantly, Australia itself put on record its willingness to accept that indeed it was only nuclear attack, not other threat contingencies, that could generate a nuclear response. In their statement responding to the release of the US Nuclear Posture Review (NPR), Foreign Minister Stephen Smith and Defence Minister John Faulkner said ‘The United States knows that Australia would be comfortable if the United States were to reach its objective of making deterrence of nuclear attack the sole purpose of its nuclear weapons, although the NPR notes that significant work is required to establish the conditions to do so safely’.³⁰

There are other US relationships in the region—treaty-based in the case of Thailand and the Philippines, statute based in the case of Taiwan, and more informal in the case of Singapore—which might be thought to carry with them security guarantees of varying degrees of force. But in every case, the protection of the US nuclear umbrella is at best implicit rather than explicit. The question that needs to be addressed by all of them is whether there is any utility now, if there ever was, in that possible protection, and whether the risks involved in relying on nuclear deterrence outweigh any possible rewards.

3. Revisiting the Arguments for Nuclear Disarmament

If progress is to be made on nuclear disarmament—and by extension on avoiding further proliferation of nuclear weapons, for the two issues are inextricably connected—persuasive, hard-headed cost-benefit argu-

lia, para 9.7, and most recently, ‘Finally, as long as nuclear weapons exist we rely on the nuclear forces of the United States to deter nuclear attack on Australia’: Department of Defence (2013) Defence White Paper 2013 para 3.41.

29. See Tanter R (2009) *Rethinking Extended Nuclear Deterrence in the Defence of Australia*. The Asia-Pacific Journal, 50-3-09, 14 December, 2009, <http://www.japanfocus.org/-Richard-Tanter/3269#sthash.8KRysIU1.dpuF>

30. Smith S, Faulkner J (2010) *Release of the United States Nuclear Posture Review*. Joint Media Release 7 April 2010, <http://www.foreignminister.gov.au/releases/2010/fa-s100407.html>

ments for reducing and ultimately eliminating reliance on nuclear weapons must be understood and accepted by policy-makers in the nuclear-armed states, in Asia and the Pacific as elsewhere. Recognising the force of such arguments—in particular those against placing reliance on nuclear deterrence—is never likely to be a sufficient condition for achieving the elimination of nuclear weapons, but there cannot be much doubt that it is a necessary one.

The relevant arguments fall into three groups, all of which have recently been gaining more traction, although whether enough to make any policy difference remains to be seen. First, there are the traditional *humanitarian* considerations, that nuclear weapons are morally and environmentally indefensible challenges to our common humanity. Second, there are increasingly resonant *financial* arguments, that with all the other budgetary pressures on contemporary governments, nuclear weapons are simply an indefensibly costly misallocation of resources. Third, and most pertinently for present purposes, there are *strategic* arguments: that for all the long tradition of reliance on nuclear weapons to maintain peace and stability, this dependence is misplaced, and that such deterrent utility as nuclear weapons may have is outweighed by the huge risks associated with their retention by any state.

3.1 Humanitarian

The argument for the moral indefensibility of nuclear weapons is familiar and powerful. When the first atomic bomb exploded over Hiroshima, it made no distinction between combatants and civilians, old and young, or victims and those trying to help them. Virtually, all those within a half kilometre radius were incinerated, boiled or crushed to death, and those in surrounding areas died soon after of burns, wounds, or within months of radiation illness, bringing total estimated deaths to as many as 170,000. And these numbers are small compared with the casualties that may be expected from later generation weapons. However concealed by the language of deter-

rence, doctrine, countervalue, and counterforce strategy, warhead reliability and the like, the moral bottom line is the terrible, indiscriminate human suffering, immediate and longer term, these weapons cause.

The almost indescribable horror associated with any nuclear weapon use informed the very first resolution of the UN General Assembly in 1946, and has been at the heart of all disarmament advocacy since. Humanitarian arguments have been recently gaining new momentum. The 2010 NPT Review Conference Final Document expressed ‘deep concern at the catastrophic humanitarian consequences of any use of nuclear weapons, and reaffirm[ed] the need for all states at all times to comply with applicable international law, including international humanitarian law’.³¹ The theme was picked up in major statements made by Switzerland on behalf of 34 countries in the First Committee of the UN General Assembly in October 2012, and by South Africa on behalf of 80 countries at the Geneva NPT Preparatory Committee meeting on 24 April 2013, emphasising ‘the immense, uncontrollable destructive capacity and indiscriminate nature of these weapons’.³² The position that nuclear weapons breached principles at the heart of international humanitarian law—the distinction between combatants and civilians, proportionality and precaution—was repeatedly articulated at the Norway-sponsored Conference on the Humanitarian Impact of Nuclear Weapons held in Oslo in March 2013. Although as of mid-2013, the nuclear weapon-states and most of their allies remained resistant to committing to this enterprise, it can be expected to build further momentum by the time of a planned follow-up conference in Mexico in early 2014.

31. Final Document: 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, p. 19. United Nations, New York

32. 67th Session of the United Nations General Assembly First Committee Joint Statement on the humanitarian dimension of nuclear disarmament (22 October 2012, New York); Second Session of the Preparatory Committee for the 2015 Review Conference, Joint Statement on the humanitarian impact of nuclear weapons (24 April 2013, Geneva).

The humanitarian argument against nuclear weapons use is also based on their environmental impact. As the World Commission on the Environment and Development, chaired by Gro Harlem Brundtland, stated in its report *Our Common Future* in 1987: 'The likely consequences of nuclear war make other threats to the environment pale into insignificance. Nuclear weapons represent a qualitatively new step in the development of warfare. One thermonuclear bomb can have an explosive power greater than all the explosives used in wars since the invention of gunpowder. In addition to the destructive effects of blast and heat, immensely magnified by these weapons, they introduce a new lethal agent—onising radiation—that extends lethal effects over both space and time'.³³

In addition to these effects, the 'nuclear winter' impact of a major nuclear exchange, even one confined to a single region like South Asia, would be globally devastating. With millions of tons of smoke lofted to high altitude and absorbing sunlight, surface temperatures and precipitation would dramatically fall, threatening a significant fraction of the world's food supply—such 'nuclear famine' would put at risk the lives of nearly a billion people. The point is also made, by those who calculate nuclear winter impacts, that they involve 'self-assured destruction': whether or not a major nuclear attack provokes nuclear retaliation by another state, the damage will have been done—and ensure starvation in the attacking country itself as well as elsewhere.³⁴

Both the direct human impact and the longer term environmental impact motivated the challenge to the legality of nuclear weapons mounted in the International Court of Justice by the UN General Assembly on the initiative of the World Health Organization, which resulted in the 1996 Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons*. There were many formidable arguments made against

legality, including that use of nuclear weapons would be contrary to international humanitarian law because they cannot discriminate between civilians and combatant; would violate the right to life; would in some circumstances amount to genocide; would be contrary to existing norms relating to the safeguarding and protection of the environment; would be a serious danger to future generations; and would be, even in the case of use in self-defence, disproportionate and therefore unlawful in most cases. Reinforcing arguments included that since nuclear weapons have not been used since 1945, it can be inferred there is a rule of customary international law prohibiting this; and that the UN General Assembly has declared the use of nuclear weapons to be illegal and in violation of the Charter of the United Nations.

Having analysed all the arguments, the Court decided unanimously that 'There is in neither customary nor conventional international law any specific authorisation of the threat or use of nuclear weapons'; and by seven votes to seven (with the President's casting vote) that 'The threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law'. Although the Court added the qualification that it 'cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake', it follows from its opinion that there is no circumstance in which a State can be sure that any use it makes of nuclear weapons will be lawful. Their use plainly is unlawful in most circumstances—and may well be unlawful in all circumstances.

3.2 Financial

At the other end of the moral spectrum, perhaps, but no less powerful in practice for that, there is the argument that nuclear weapons are simply indefensibly costly.³⁵ As

33. Brundtland Commission (1987) *Our Common Future*, p. 295. Report of the World Commission on Environment and Development, United Nations, New York

34. Robock A, Toon O B (2012) Self-assured destruction: The climate impacts of nuclear war. *Bulletin of the Atomic Scientists* 68, 66–74

35. See generally Page J, Thakur R (2013) *Nuclear Weapons -The Opportunity Costs*. APLN/CNND Policy

estimated by Global Zero researchers Bruce Blair and Mathew Brown in 2011—from manifestly imperfect but the best available data—the full cost (including mitigating health and environmental consequences) of worldwide spending on nuclear weapons by the nuclear-armed states was then running at \$104.9 billion: in that year the United States spent \$61.3 billion, Russia \$14.8 billion, China \$7.6 billion, France \$6 billion, United Kingdom \$5.5 billion, India \$4.9 billion, Pakistan \$2.2 billion, Israel \$1.9 billion and North Korea \$0.7 billion. They further estimated, taking into account planned worldwide upgrading of nuclear arsenals, that aggregate spending by these states over the next decade will exceed \$1000 billion, or *one trillion* dollars.³⁶ These extraordinary amounts raise questions both about the military utility of this expenditure, and its opportunity cost.

As to military cost-benefit, the history of the nuclear age provides ample evidence that nuclear weapons do not enable reductions in spending on conventional forces. As will be discussed below, in the context of strategic arguments for nuclear disarmament, the indiscriminate, highly destructive (including self-destructive) power of nuclear weapons renders them unusable—except possibly as an absolute last resort in the most desperate of circumstances. Generations of military leaders have decided, on perfectly rational grounds, that they cannot serve as a substitute for capable conventional forces. Now, in the current—and likely continuing—global climate of financial stringency, nuclear forces, rather than supporting conventional capabilities, risk undermining them. The wisdom of using large proportions of defence budgets on weapons that are essentially unusable and which make a highly questionable contribution to meeting contemporary security challenges is coming increasingly into question.

Brief no. 1, June 2013. Australian National University, <http://cnnd.anu.edu.au/policy-briefs/>

36. Blair B, Brown M (2011) World Spending on Nuclear Weapons Surpasses \$1 Trillion per Decade. Global Zero http://www.globalzero.org/files/gz_nuclear_weapons_cost_study.pdf. All figures cited are in US dollars.

As to social cost-benefit, there is a real issue as to whether some or all of the money being spent to little purpose on nuclear weapons would be better directed to non-military use, both internationally and domestically. One area where savings could be employed more productively internationally would be to help achieve the UN Millennium Development Goals. It has been estimated that achieving unmet goals by the 2015 deadline—improving more than 1.6 billion lives in the process—would cost \$40–60 billion, which is about half the projected annual global expenditure on nuclear weapons over this period. Within nuclear-armed states there are many examples of how nuclear weapons budgets could arguably be better spent. In the United States, for instance, \$400 million—the 25 per cent projected increase for stockpile support—would provide more than 10,000 university students with 4-year scholarships. And in Pakistan, for \$815 million—a little over one third of its present nuclear weapons-related expenditure—11,000 schools could be funded.³⁷

3.3 Strategic

The strategic arguments against nuclear weapons fall into three baskets: that they are of much more dubious deterrent utility than usually thought, despite their destructive ferocity; that their lack of utility is compounded by their fragility as a basis for maintaining stable peace; and that they are anachronistic, in that whatever the balance of risk and reward may have been during the Cold War years, in the world of the 21st century the dangers associated with their acquisition and retention far outweigh any possible returns.

3.3.1 The Utility of Nuclear Deterrence

None of the main arguments in favour of the utility of nuclear deterrence have, on closer examination, anything like the force they are usually seen to possess.

37. Adrianna Wolaver A (2010) The Real Price of Nuclear Weapons. Nuclear Age Peace Foundation <http://wagingpeacetoday.blogspot.com.au/2010/08/real-price-of-nuclear-weapons.html>.

The first, and most common, is that nuclear weapons have deterred, and will continue to deter, war between the major powers—that the balance of nuclear terror between the United States and the Soviet Union maintained peace throughout the Cold War, and has done so since between other pairs of potential belligerents, including India and Pakistan, India and China, and China and the United States.

While nuclear weapons on the other side have always constituted a formidable argument for caution—and fear of their possible use was obviously crucial, for example, in securing the back-downs on both sides that ended the Cuban missile crisis—it is strongly arguable that their impact has been exaggerated. Certainly, there is simply no evidence that at any stage during the Cold War years either the Soviet Union or the United States ever wanted to cold bloodedly initiate war, and were only constrained from doing so by the existence of the other's nuclear weapons.³⁸

We know that knowledge of the existence on the other side of supremely destructive weapons (as with chemical and biological weapons before 1939) has not stopped war in the past between major powers. Nor has the experience or prospect of massive damage to cities and killing of civilians caused leaders in the past to back down—including after Hiroshima and Nagasaki, where the historical evidence is now very strong that it was not the nuclear attacks which were the key factor in driving Japan to sue for peace but the Soviet declaration of war later that same week.³⁹ Although the context there was different—terminating an existing war rather than deterring a new one—the point remains that concern about being on the receiving end of the extreme destructive power of nuclear weapons may simply not be, in itself, as decisive for decision-makers as usually presumed. Other explanations may be more important.

38. See, e.g. Doyle, J E (2013) Why Eliminate Nuclear Weapons?, *Survival* 55, 13–15.

39. See Wilson W (2013) *Five Myths About Nuclear Weapons*, pp. 21–53. Houghton Mifflin Harcourt, New York. For the Japanese scholarship see especially Hasagawa, T (ed.) (2007) *The End of the Pacific War: Reappraisals*, esp ch 4. Stanford University Press.

A plausible non-nuclear explanation for the 'Long Peace' since 1945, although this issue is still intensely debated, is that what has stopped—and will continue to stop—the great powers from deliberately starting wars against each other is, more than anything else, a realisation, after the experience of World War II and in the light of all the rapid technological advances that followed it, that the damage that would be inflicted by *any* war would be unbelievably horrific, and far outweighing, in today's economically interdependent world, any conceivable benefit to be derived.⁴⁰

A second familiar argument for the strategic utility of nuclear weapons is that they deter large-scale conventional attacks. The idea of nuclear weapons as a strategic equaliser, necessary to compensate for inferior conventional weapon capability, remains at the heart of Pakistan's justification for its nuclear arsenal. And North Korea undoubtedly believes that possession of even a very small number of nuclear weapons constitutes some deterrent against forcible regime change, with the experience of Serbia in 1999, Iraq in 2003 and Libya in 2011 no doubt reinforcing its perception that states without such capability are particularly vulnerable.

There is some weight in these arguments, and the extent to which the 'strategic equaliser' theme, in particular, is embedded in policy-makers' consciousness—including in Russia and China, in the context of their perceptions of US conventional superiority—will undoubtedly in practice be one of the most powerful inhibitors in achieving the ultimate complete elimination of nuclear weapons.⁴¹ But on closer examination, there is less reason for confidence that nuclear weapons have in the past, or will in the future, guarantee immunity for their possessors against conventional assault.

There is a long list of examples where non-nuclear powers have either directly attacked nuclear powers or have not been deterred by the prospect of their intervention:, for

40. Pinker S (2011) *The Better Angels of our Nature: The Decline of Violence in History and Its Causes*, Chapter 5, especially pp. 288–94. Penguin, London.

41. See the discussion in the final section below of what is described there as the 'geopolitical hurdle' to abolition.

example, the Korea, Vietnam, Yom Kippur, Falklands, two Afghanistan and first Gulf wars. The calculation evidently made in each case was that a nuclear response would be inhibited by the prevailing taboo on the use of such weapons (on which more below), at least in circumstances where the very survival of the state was not at stake.

Moreover, the confidence that seems to have moved some smaller states, like North Korea, to think that a handful of nuclear weapons is their ultimate guarantor against external regime-change-motivated intervention is not well founded. While no doubt complicating the calculations of a would-be intervener, and possibly raising the costs of victory, weapons that it would be manifestly suicidal to use are not ultimately a very credible deterrent, nor are those that are not backed by the infrastructure (e.g. missile submarines) that would give them a reasonable prospect of surviving to mount a retaliatory attack. In the case of North Korea, its strongest military deterrent remains what it has always been. And that is its capacity to mount a devastating conventional artillery attack on Seoul and its environs: there is not much doubt that South Korea, supported by the United States, would quickly overwhelm the North in any military conflict but not without its capital first experiencing massive damage. Pyongyang does not need nuclear weapons to give Seoul and Washington military pause.

The argument that nuclear weapons deter conventional attacks is vulnerable from another perspective. There are cases where the presence on both sides of nuclear weapons, rather than operating as a constraining factor, has been seen as giving one side the opportunity to launch small military actions without serious fear of nuclear reprisal (because of the extraordinarily high stakes involved in such a response): as with Pakistan in Kargil in 1999, and North Korea in the sinking of the Cheonan and shelling of Yeonpyeong Island in 2010. It may be that—rather than, as the old conservative line would have it, ‘the absence of nuclear weapons would make the world safe for conventional wars’—it is the *presence* of nuclear weapons that has made the world safer for such

wars. There is substantial quantitative, as well as anecdotal, evidence to support what is known in the literature as the ‘stability/instability paradox’—the notion that what may appear a stable nuclear balance actually encourages more violence under the shelter of the nuclear overhang.⁴²

A third major argument for the strategic utility of nuclear weapons is that they operate as a hedge, or form of insurance, against nuclear blackmail. China, for one, has often articulated this as a key reason for acquiring and maintaining its nuclear arsenal. But, while firmly embedded in policy-maker consciousness, this argument appears to be based on a false premise. As already discussed in the opening section of this article, the belief that nuclear weapon possession (or superiority) means more effective compelling threats—a greater ability to get one’s way in any diplomatic confrontation—is simply not backed by any historical evidence.⁴³ And it underestimates the force of the real-world taboo that unquestionably inhibits not only the use, but the threat of use, of these weapons.

A fourth strategic argument for nuclear weapons is that they will deter any chemical or biological weapons attack. This is claimed by some nuclear-armed states and their allies—in particular as the reason why Saddam Hussein did not use chemical weapons in 2003—but it lacks plausibility. There are a number of other reasons why the Iraqis may not have used these weapons then, including a perception that coalition forces were well protected against such attack, and a fear of individual force commanders of being tried for war crimes. More generally, given that chemical weapons have nothing like the destructive potential of nuclear weapons—and never will, although the future risk factor is higher with biological weapons—it is difficult to paint any plausible scenario in which nuclear, as distinct from conventional, retaliation would be a proportional, necessary, and therefore credible

42. Rauchhaus, R (2009) Evaluating the Nuclear Peace Hypothesis: A Quantitative Approach, *Journal of Conflict Resolution* 53, 258–277.

43. See Sechser T S, Fuhrmann M (2013), footnote 3 above and accompanying text.

response. The United States made no nuclear threat against Iraq, and there is no evidence whatever that it would have done so, or would have needed to, had Saddam's forces used chemical weapons.⁴⁴ It is similarly inconceivable that the United States would even have contemplated responding with nuclear weapons to the use of chemical weapons in Syria in 2013.

The fifth, and weakest strategic argument of all for nuclear weapons, although it is still sometimes heard, is that they may be needed to deter nuclear terrorism. Nuclear weapons are manifestly neither strategically, tactically nor politically useful for this purpose. Terrorists do not usually have territory, industry, a population or a regular army which could be targeted with nuclear weapons. And to conduct nuclear strikes on another state, even one demonstrably complicit in a terrorist attack, would raise huge legal, moral, political and strategic issues. If a nuclear strike was not contemplated in Afghanistan after 9/11, when would it ever be?

The more general point that runs through many of these responses to the arguments for nuclear deterrence is that nuclear weapons really are inherently unusable—and because key players know that, even if so many are reluctant to openly concede it, nuclear deterrence has nothing like the power it is commonly assumed to have. Military commanders have long understood that there are formidable practical obstacles involved in the use (and by extension threatened use) of these weapons at both the tactical and strategic level, not least the damage they can cause to one's own side and to any territory being fought over.⁴⁵

Beyond the practical obstacles, there is the profound normative taboo which unquestionably exists internationally against any use of nuclear weapons, at least in circumstances where the very survival of a state is not at stake. Since the early 1950s—when it began to sink in that their destructive capacity really

was infinitely greater than anything previously seen—such deliberate use has been seen as inconceivable by the leaders of any country thinking of itself as civilised, and wanting to be thought so by others. Presidents Truman, Eisenhower and Kennedy rejected military advice to use nuclear weapons in the Korean War, the Taiwan Straits crisis and the Cuban missile crisis, and the force of the taboo has if anything since grown. Even John Foster Dulles said that if the United States had used nuclear weapons in Korea, Vietnam, or against China over Taiwan, 'we'd be finished as far as present-day world opinion was concerned'.⁴⁶

There is some very recent published research⁴⁷ suggesting, a little alarmingly, that the nuclear taboo is not felt nearly as strongly as previously thought by the US public. But among policy-makers worldwide the taboo seems, in the judgement of at least this practitioner, to be as strong as ever. And it is confidence in the existence of that taboo—and the effective unusability of nuclear weapons that goes with it, for one's opponents as well as oneself—that may be thought to explain why so many military risks have been taken over the years in defiance of that supposed deterrent.

The sixth, and remaining, strategic argument for the utility of nuclear deterrence that needs to be addressed is that possession of and willingness to use nuclear weapons has contributed to non-proliferation, at least in one context, viz. 'extended nuclear deterrence'. The willingness of the United States to commit its nuclear capability to protect allies from possible attack has long been thought to be crucial in dissuading especially Japan and South Korea from acquiring deterrent nuclear capability of their own. There is force to this claim, although strong anti-nuclear sentiment in Japan continues to act as a disincentive to any government going down that path.⁴⁸

46. Quoted in Tannenwald N (2007) *The Nuclear Taboo*, p. 173. Cambridge University Press, Cambridge.

47. Press D G, Sagan S D, Valentino B A (2013) Atomic Aversion: Experimental Evidence on Taboos, Traditions and the Non-Use of Nuclear Weapons, *American Political Science Review* 107, 188–206.

48. See generally O'Neil A (2013) *Asia, the US and Extended Nuclear Deterrence: Atomic Umbrellas in the*

44. ICNND (2009) *Eliminating Nuclear Threats: A Practical Agenda for Global Policymakers*, endnote to para 6.18, p 238. International Commission on Nuclear Non-Proliferation and Disarmament, Canberra.

45. ICNND (2009), para 6.2.

But it can be argued equally strongly, certainly in the context of the United States and its allies, both in Asia and the Pacific and in Europe, that extended *nuclear* deterrence could be replaced by ‘extended deterrence’—that is, with the United States dropping its nuclear umbrella component but guaranteeing allies full protection against any threat contingency through its conventional weapons capability, which is presently overwhelming, and will be hugely formidable for the foreseeable future even in a world of greater conventional arms balance. While this is not to underestimate the political and psychological comfort involved in having nuclear weapons notionally available to respond not only to nuclear attack, but attack by other weapons threatening the very survival of the state, it is hard to argue objectively that any actual diminution of allied states’ security would be involved, not least because of the unlikelihood in practice (given the humanitarian taboo, and environmental risks, including of self-assured destruction) that nuclear weapons would ever actually be used in practice.

A more robust response to the argument that nuclear deterrence has contributed to non-proliferation is that the contrary is more likely to be true. Successive international commission reports—the Canberra Commission in 1996, Blix Commission in 2006, and the Australia–Japan ICNND in 2009—have argued that so long as any state retains nuclear weapons others will want them, and that progress towards elimination is crucial to ensure non-proliferation. Successive NPT Review Conferences have made it clear how strong is the perceived connection between disarmament and non-proliferation, and how difficult it is to strengthen the non-proliferation regime so long as the nuclear-weapon states are reluctant to make significant progress towards elimination.

That view has been endorsed in what some might think an unlikely quarter, the Congress-

sional Commission on the Strategic Posture of the United States, the 2009 final report of which observed that ‘other nations may not show the nuclear restraint the United States desires or support non-proliferation efforts if the nuclear weapon states take no further agreed steps to decrease their reliance on nuclear arms’.⁴⁹ When one’s goal is to achieve a world with less rather than more nuclear weapons, bloody minded resistance to strengthening the non-proliferation regime may be anything but a *rational* response to disappointment over slow progress on disarmament, but in the experience of this practitioner it is unquestionably a reality.

3.3.2 *The Fragility of Nuclear Deterrence*

Some might be minded to conclude from the preceding discussion that if nuclear weapons really do have little or no strategic utility, and are wholly unlikely ever to be deliberately used, then policy-makers should be able to live comfortably with their continued existence. But that does not follow at all. So long as any are retained by anyone, the risk is all too real of stumbling into a nuclear exchange through accident, miscalculation, system error, or sabotage, and any such exchange would be potentially catastrophic for life on this planet as we know it. Whatever the utility of nuclear deterrence might be thought to be, it has always been an extremely fragile basis for maintaining stable peace, for three main reasons.

First, nuclear deterrence depends on rational actors on both sides, each making rational judgements about the risk factors involved. Political actors and circumstances can change, and it cannot be assumed that complete rationality will always prevail in the stress of a real-time crisis. As Hedley Bull has said, ‘mutual nuclear deterrence . . . does not make nuclear war impossible, but simply renders it irrational’. And as he also wryly put it, a rational strategic man is one ‘who on further

21st Century. Routledge, London; Medcalf R (ed) (2011) *Weathering Change: The Future of Extended Nuclear Deterrence*. Lowy Institute for International Policy, Sydney.

49. Congressional Commission (2009) *America’s Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States*, p. 66. United States Institute of Peace Press, Washington DC.

acquaintance reveals himself as a university professor of unusual intellectual subtlety'.⁵⁰

Second, nuclear deterrence depends on there being no human or system errors. There is a major risk not only of human error or misjudgement under stress but of miscommunication (the risks here now compounded by the sophistication of cyber weapons) and of basic system error, with harmless events being read as threatening (as, e.g. in 1995 when Russia's President Boris Yeltsin was advised that he should immediately retaliate against an incoming NATO missile, which proved to be a Norwegian scientific rocket launch).

Much archival evidence of the Cold War years—when command and control systems on both sides were thought to be highly sophisticated, and were more so than are some between potential nuclear adversaries today—has now revealed how close to calamity the world regularly came, much more so than was understood at the time. It is not a matter of good policy or good management that the world has avoided a nuclear weapons catastrophe for nearly 70 years: it is sheer dumb luck. These risks are dramatically compounded when nuclear armed states maintain nuclear weapons on dangerously high 'launch-on-warning' alert status—as is still the case, more than two decades after the end of the Cold War, for almost 2,000 weapons in the US and Russian arsenals. Reports in 2013 of security failures and acute morale problems at US missile launch sites add further alarming weight to this concern.⁵¹

Third, new technical developments may make old calculations redundant. There is a risk, in particular, that new generation conventional attack weapons, or missile defence systems, will be developed that will be so sophisticated and powerful as to create real

doubts in states' minds about the survivability of their retaliatory, second-strike capability. In an extreme crisis situation this could encourage such states to strike first; and at the very least is likely to encourage them to expand their nuclear armouries, with all the potential that has for setting off new nuclear arms races.

3.3.3 Nuclear Deterrence as a Dangerous Anachronism

Even for those who will never abandon the position that nuclear weapons—and the fear of mutually assured destruction that went with them—were crucial in avoiding war between the Soviet Union and United States for nearly five decades, it is hard to argue that things have not changed. The threats with which the world is most concerned now—terrorism, biological weapon attack, cyber attack, climate change and health pandemics—are not those which nuclear weapons can in any way help to address.

As the threats have changed, so too have the risks associated with the retention of nuclear weapon stockpiles. As Lord Browne and Ian Kearns argue in a 2012 European Leadership Network policy brief, 'the nuclear order that is emerging, of smaller global nuclear weapon stockpiles overall, but of weapons distributed across more states in more unstable regions, has the potential to be less stable than the Cold War and is more likely, as a consequence, to see nuclear weapons used'.⁵² This was the central argument made in the very influential series of articles written since 2007, most recently in March 2013, by the four US statesmen—realists all—Henry Kissinger, George Shultz, William Perry and Sam Nunn, concluding that with the end of the Cold War, nuclear weapons had outlived whatever utility they might have had:

It is far from certain that today's world can successfully replicate the Cold War Soviet–American deterrence by 'mutually assured

50. The first quote is from Bull H (1995) *The Anarchical Society*, p. 234. Macmillan, London; the second from Bull H (1961) *The Control of the Arms Race*, p. 48. Institute of Strategic Studies, London.

51. Carroll J (2013) US nuclear weapons poised for catastrophe, *The Boston Globe* (26 August 2013), <http://www.bostonglobe.com/opinion/2013/08/26/nuclear-tipped-missiles-posed-for-nightmare-holocaust/VZ3KQOUsAUFm4qfuchjmCI/story.html>

52. Browne D, Kearns I (2012) NATO, Russia, and the Nuclear Disarmament Agenda: Reflections Post Chicago, p. 5. European Leadership Network (ELN), London, <http://www.europeanleadershipnetwork.org/medialibrary/2012/08/07/a7e51c12/NATO%20Russia%20and%20Disarmament.pdf>

destruction’—the threat of imposing unacceptable damage on the adversary. That was based essentially on a bipolar world. But when a large and growing number of nuclear adversaries confront multiple perceived threats, the relative restraint of the Cold War will be difficult to sustain. The risk that deterrence will fail and that nuclear weapons will be used increases dramatically.⁵³

4. Making Disarmament Happen

Understanding and accepting the compelling force of the arguments against nuclear weapons possession and retention is a necessary starting point for nuclear disarmament, but it certainly will not get policy-makers to the finishing line. What are the key steps that now need to be taken, and can the major obstacles that will be encountered along the way be overcome?

The beginning of wisdom for any credible strategy for disarmament is to recognise that this is never likely to be achieved as a straight-line process, but will need to involve two distinct stages, first ‘minimisation’ then ‘elimination’, with some inevitable discontinuity between them. The International Commission on Nuclear Non-Proliferation and Disarmament (ICNND) took the view that a target date of 2025 could be set for the achievement of a minimisation objective—optimistic, but not wholly unrealistic provided serious momentum started to build early. This would involve reducing the global stockpile of all existing warheads to no more than 2,000 (a maximum of 500 each for the United States and Russia and 1,000 for the other nuclear-armed states combined), with all states being committed by then to ‘No First Use’—and with these doctrinal declarations being given real credibility by dramatically reduced weapons deployments and launch readiness.⁵⁴

But as much as it wanted to move quickly thereafter to elimination, the Commission took

the view that it might diminish the political believability of the whole disarmament argument to set a further specific timeline on getting from low numbers to zero. It recognised that this involved not just further stages on the same incremental continuum but overcoming three high hurdles—psychological, technical and geopolitical—as to each of which it was simply impossible, at least for now, to attach a credible target date.⁵⁵ The psychological hurdle is simply giving up the status and prestige that seems traditionally to have been associated with membership of the nuclear weapons club.

The technical hurdle, which applies universally, is verification and enforcement. Getting to zero will be impossible without every state being confident that every other is complying, that any violation of the prohibition is readily detected, and that any breakout is controllable. Those conditions do not exist at the moment, although important work is being done on verification by the United Kingdom, Norway and United States, and this part of the problem may well be solved over the next decade or so. Enforcement, however, will continue to be a major stumbling block for the foreseeable future, with the Security Council’s credibility on this issue manifestly at odds with the retention of veto powers by the Permanent Five. That said, no institutional problem is insoluble given the political will to cooperate, and if sufficient self-reinforcing momentum develops behind the whole disarmament enterprise over the years ahead, this difficulty might not loom as large in the endgame as it does now.

The geopolitical hurdle is likely to be the biggest: the creation of an environment in the key regions of North East Asia and South Asia (and the Middle East) stable enough for no country to have any serious concern about existential threats, even if not all sources of potential tension have disappeared. Many commentators argue that nuclear disarmament cannot be pursued in a vacuum, and it is only in the context of a wholly favourable overall

53. Shultz G P, Perry W J, Kissinger H, Nunn S (2013) Next Steps in Reducing Nuclear Risks. *The Wall Street Journal*, 5 March 2013, <http://online.wsj.com/article/SB10001424127887324338604578325912939001772.html>

54. ICNND (2009) *Eliminating Nuclear Threats: A Practical Agenda for Global Policymakers*, paras 1.81-38.

International Commission on Nuclear Non-Proliferation and Disarmament, Canberra.

55. ICNND (2009), paras 19.5–26

political and security environment—when relevant regional and other tensions have been eliminated or dramatically reduced—that any serious movement could ever be contemplated. A familiar variation on this argument is that without a major rebalancing of conventional weapons capability between pairs of potential adversaries where there is presently a significant imbalance, no movement at all on disarmament can be expected.

It is important not to overstate this position. Every possible diplomatic effort should continue to be made to soothe current tensions, anticipate potential flashpoints, build confidence, and ultimately settle outstanding issues between potential adversaries, both for their own sake and for the positive contribution this would make to nuclear disarmament diplomacy. But to make *any* movement on disarmament conditional upon the resolution of regional conflicts, the settlement of major power tensions, or the achievement of real balance in the conventional military capability of relevant pairs of states is to set oneself up for failure, on the model of the old saw: ‘If we are weak how can we compromise? If we are strong why should we compromise?’ Movement towards disarmament should not be held completely hostage to improvement in the overall geopolitical climate: the two developments should be seen as complementary and mutually reinforcing and properly pursued in tandem.

As strewn with obstacles as the road ahead may appear to be, there are ways of moving forward in each of the crucial pairs of relationships that will determine how far and fast nuclear disarmament proceeds. In each case the key to progress, as in all diplomacy, is to try to understand the interests and perspectives of the other side, and to find ways of accommodating them by all means short of putting at real risk genuinely vital interests of one’s own.

As to the *United States and Russia*, the key to recommencing serious further arms reduction negotiations will be for Washington to give Moscow an acceptable response to its concerns, exaggerated though they may be (and as absurd as any such anxiety might appear more than 20 years after the end of the Cold War), about BMD and new long-range

conventional weapons systems seriously diminishing its second-strike retaliatory capability. A good start has been made in this respect on missile defence with Washington’s cancellation in March 2013 of the final phase of a Europe-based system, involving interceptors which Russia had long argued might have the ability to target its own Intercontinental Ballistic Missiles, thus reducing strategic stability.⁵⁶

A long menu of steps designed to break the two countries out of ‘Cold War autopilot’ mode has been usefully proposed in a report published in early 2013, *Building Mutual Security in the Euro-Atlantic Region*, co-authored by former UK Defence Minister Des Browne, former Russian Foreign Minister Igor Ivanov, former US Senator Sam Nunn, and Munich Security Conference Chair, Wolfgang Ischinger.⁵⁷ Its recommendations include specific cooperative strategies on missile defence, acceptance of legally binding limits on the development and deployment of prompt-strike conventional forces, new confidence-building measures on conventional forces generally, reciprocal commitments to progressively removing strategic forces from prompt-launch status, and reciprocal cuts in tactical nuclear weapons. As of mid-2013, the overall state of the political relationship between the United States and Russia was so cool, as a consequence of differences over Syria and other non-nuclear issues, that no early movement can be expected on any of these fronts. But if a cooperative environment can be re-established (not impossible even over Syria, given common interests in calming the region), and momentum generated around these elements, over the next few years, the

56. See Herzenhorn D, Gordon M (2013) US Cancels Part of Missile Defense That Russia Opposed. *The New York Times*, 16 March 2013, <http://www.nytimes.com/2013/03/17/world/europe/with-eye-on-north-korea-us-cancels-missile-defense-russia-opposed.html?ref=davidmherszenhorn>

57. Browne D, Ischinger W, Ivanov I, Nunn S (2013) *Building Mutual Security in the Euro-Atlantic Region*. European Leadership Network (ELN), London, https://www.nti.org/media/pdfs/BMS_Summary_Report_FINAL.pdf

2025 minimisation target described by the ICNND is not out of reach.

As to the *United States and China*, there are two general keys to ensuring that China does not break out of its current ‘minimal deterrence’ posture, and eventually joins in a serious nuclear disarmament enterprise. The first is success in advancing the United States–Russia agenda described above, because without major further reductions in the arsenals of the big two it will be Quixotic to hope that China will begin to reduce its own. The second, perhaps more difficult for the United States to embrace, but crucially necessary, is for Washington to accept, at least tacitly, what it has not so far been prepared to, that its nuclear relationship with China is one of ‘mutual vulnerability’, meaning in practice that the United States ‘should plan and posture its force and base its own policy on the assumption that an attempted US disarming first strike, combined with US missile defences, could not reliably deny a Chinese nuclear retaliatory strike on the United States’.⁵⁸ It will be important in this respect for the United States here, as with Russia, to defuse concern about its growing missile defence and long-range conventional strike capability, and negotiation of United States–Russia limitations on conventionally armed strategic weapons systems should meet the latter Chinese anxiety. As to the former, Arbatov and Dvorkin argue plausibly that the current multi-layered BMD system in the Pacific is adequate to counter North Korean missile launches, and that any further development of its sea and land-based assets will be increasingly seen as having an anti-Chinese purpose and should not be pursued.⁵⁹

58. CSIS (2013) *Nuclear Weapons and U.S.-China Relations: A Way Forward*, p.18. Centre for Strategic and International Studies, Washington http://csis.org/files/publication/130307_Colby_USChinaNuclear_Web.pdf:

the Group’s members were divided on whether the United States should formally and publicly acknowledge ‘mutual vulnerability’, largely on the ground that this might worry regional allies, but united on the substance. This is also a recommendation of Arbatov A and Dvorkin V (2013) *The Great Strategic Triangle. The Carnegie Papers* <http://carnegie.ru/2013/04/01/great-strategic-triangle/fvbx>

59. Arbatov and Dvorkin (2013), p.35.

As to *China and India*, just as China’s willingness to cooperate on nuclear tension reduction measures is largely contingent in practice on developments between the United States and Russia, so too is India’s cooperation largely dependent on developments in China. For example, just as China has made clear that it will not ratify the Comprehensive Test Ban Treaty (CTBT) unless and until the United States does so, so has India made clear that it will wait upon China.⁶⁰ There is no obvious way out of this cul-de-sac, other than for India–China relations to improve to the point that neither believes to be remotely credible a major attack by the other—or at least that both sides come to accept the arguments advanced in this article, and agree that, in the words of former Indian Foreign Minister Jaswant Singh, ‘it would be rank, suicidal stupidity to even think of any “nuclear” solution to the issues that currently poison the air’.⁶¹ The rapidly burgeoning trade relationship between the two gives ground for confidence that this might be achievable in the not too distant future but outstanding territorial issues—over which the two countries went to war 50 years ago—would need to be addressed, and China’s support for Pakistan civil nuclear programs will continue to be a complicating issue.

As to *India and Pakistan*, Jaswant Singh’s observation, just quoted, was intended also to apply to this traditionally even more poisonous relationship, but there is, unhappily, no present sign of it having much traction in Islamabad, still consumed as Pakistan is by belief in both India’s malignant intent and its conventional superiority. That said, a willingness by India to ratify the CTBT, to accept a moratorium on the further production of fissile material for weapons use and to freeze its own nuclear weapons production (perhaps conditional on Pakistan doing likewise)—all of which could and should have been demanded of it by the Nuclear Suppliers Group as the quid pro

60. See generally Dalton T, Tandler J (2012) Understanding the Arms ‘Race’ in South Asia. *The Carnegie Papers* September 2012, Carnegie Endowment for International Peace, Washington DC, <http://carnegieendowment.org/2012/09/13/understanding-arms-race-in-south-asia/dtj0>

61. Communication with the author, 11 March 2013.

quo for any supply of nuclear material or technology—would do much to improve the environment, and if Delhi's relationship with Beijing were to improve significantly, these ambitious objectives might not be totally unachievable.

If rationality is not to prevail in restraining the present precarious nuclear relationship between Pakistan and India, the burden will have to fall on civility. There have been occasions—most notably the February 1999 Lahore Summit between Prime Ministers Sharif and Vajpayee—when this has indeed prevailed, and has been accompanied by significant confidence building and stabilising. The aim must continue to be to pursue such breakthroughs at the leadership level and hope that they will not, as so often in the past, be derailed by military adventurism or malign third forces.⁶² There is no inherent reason, after all, why this bilateral relationship should not be capable of transformation. As George Perkovich has pointed out, 'India does not harbour offensive intentions towards Pakistan. India does not covet territory that Pakistan controls. India does not wish for Pakistan to be dismembered. Indian leaders recognise that it is in their country's interest for Pakistan to develop economically, to democratise politically and to live in peace. India does not want Pakistan's problems to spill over into its territory or restive Muslim populations'.⁶³

As to the situation with *North Korea*, it is not obvious that its neighbours and the wider international community have any other options than the familiar trio of containment, deterrence, and keeping the door open for negotiations. As one involved, albeit at some distance, in the negotiation and implementation of the 1994 Agreed Framework, the author is less persuaded than some others that all the blame for its breakdown belongs to Pyongyang, or that it is impossible to contemplate another denuclearisation agreement ever being reached.

62. Compare Dalton and Tandler (2012).

63. Perkovich G (2012) *The Non-unitary Model and Deterrence Stability in South Asia*, p 19. Stimson Centre, Washington DC, <http://www.stimson.org/summaries/perkovich-on-the-non-unitary-model-and-deterrence-stability-in-south-asia/>

China continues to resist international pressure to apply the leverage it undoubtedly has over North Korea, through its capacity to cut off food or energy supplies, on the grounds that this would both risk implosion of the state, which no one wants, and be counterproductive given the siege mentality which seems to afflict the country's leadership. It is not self-evident that this response is simply self-serving.

As to the position of those *US allies* presently sheltering—or believing they are sheltering—under the umbrella of extended nuclear deterrence, undoubtedly what they could most contribute to making nuclear disarmament happen would be to make clear their acceptance of a much reduced role for nuclear weapons in their protection. So long as South Korea, Japan and others in the region (and key European allies) continue to insist that the nuclear option be kept open for a variety of non-nuclear threat contingencies, notwithstanding the United States' manifest capacity for the indefinitely foreseeable future to deal with any of them through the application of conventional military force, they are contributing nothing to the achievement of a nuclear weapon-free world. No doubt it is easier for Australia than others living in more troublesome neighbourhoods to play a leadership role in this respect, but it would add very considerable momentum to the disarmament cause for Canberra to come out strongly in favour of the United States adopting not just a 'sole purpose' declaration, as it has done, but a 'No First Use' posture.

Sometimes the biggest policy questions of all get less attention than they deserve. So it is with nuclear disarmament, an issue that in earlier decades preoccupied decision-makers and mobilised hundreds of thousands of activists all over the world but which now, in the post-Cold War era, barely resonates at all with policy-makers or publics, and is anything but a mainstream subject for scholars. But when what is at stake in any use of nuclear weapons is both a grotesque assault on our common humanity and the potential destruction of life on this planet as we know it, this is hardly an issue which justifies either

complacency or fatalism. And when the central, critical premise of the argument for retaining nuclear weapons is that disarmament is undesirable—because nuclear deterrence works—this is not a claim which should escape sustained critical scrutiny.

It is to be hoped that the scrutiny offered here, focusing on Asia and the Pacific but applicable globally, has at least raised serious question marks about the viability of that tenacious belief, by policy-makers, and those who influence them in nuclear-armed states and their allies, that nuclear deterrence is of real value to their national security, and that its benefits outweigh any possible costs. The trouble is, of course, that understanding does not always readily translate into effective government action, and when the issues, and national interests, involved are as many, complex and interconnected as those described here, it can be a very difficult and protracted process to make even marginal gains.

There are two inescapable general conclusions which emerge from this exploration. The first is that, here as elsewhere, major policy change will almost never happen without visionary, creative and risk-taking political

leadership. Some of that necessary spark, from the most influential state of all in this debate, was ignited by President Barack Obama in Prague in 2009 speech, and it is absolutely crucial that it be reignited—as it was partially, but only partially, by his 2013 Berlin speech—during the remaining years of his term.

The second is the critical necessity, helped by such leadership, for policy-makers worldwide to escape from the time warp that still enfolds so much of their security thinking. Global public goods like peace and security can only be delivered by collective, cooperative action. National security is best achieved with others, not against them. In the interdependent world of the 21st century, depending for our ultimate security on the prospect of mutually assured destruction is neither an intelligent nor comfortable place to be. It is both a tragedy and a travesty, when reason and experience teach us so much, that old habits of mind about nuclear deterrence, in Asia and the Pacific as elsewhere, continue to resonate as they do and make nuclear disarmament as hard as it is to achieve.

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