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Regional Initiatives on Nuclear- and WMD-Free Zones

Cooperative Approaches to Arms Control and Non-proliferation

Michael Hamel-Green

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FOREWORD

The United Nations Institute for Disarmament Research (UNIDIR) had the pleasure of hosting Professor Michael Hamel-Green of the School of Social Sciences, Victoria University, Melbourne, Australia, in 2003 under our visiting research fellow programme. An acknowledged specialist in the field of regional arms control and disarmament, particularly in the Asia Pacific region, Professor Hamel-Green came to UNIDIR to carry out an examination of nuclear- and weapons of mass destruction free zones and initiatives.

The establishment of nuclear-weapon-free zones (NWFZs) is both a regional non-proliferation and security-building measure and a step toward the eventual global elimination of nuclear weapons. NWFZs normally include binding regional denuclearization provisions, verification and compliance mechanisms, and negative security guarantees against the use or threat of use of nuclear weapons versus zone members. In consequence, they rid entire regions of the spectre of nuclear weapons, further regional security cooperation and reduce the utility of nuclear weapons by shrinking the geographical space within which these could play a role.

The present study, which I am delighted to introduce, was written by Professor Hamel-Green while at UNIDIR. It discusses the status and benefits of existing and proposed NWFZs, and their improvement. Since the Treaty of Tlaltelolco established the first zone in a populated region, NWFZs have made gradual but substantive progress. Currently over 100 countries spanning the greater part of the globe—indeed, most of the Southern Hemisphere countries are covered by NWFZs—benefit from the enhanced security of NWFZs, while additional zones for regions such as South Asia, Central Asia, North-East Asia, Central and Eastern Europe and the Middle East are in various stages of development.

Apart from an important past, NWFZs have also a promising future. Yet to carry out their potential, NWFZs must be able to adapt to new security constraints that were initially not part of their purview. In this regard, the expansion of prohibition to all kinds of weapons of mass destruction and

integration of measures to deal with non-state armed groups constitute the main priorities.

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Michael Hamel-Green is an Associate Professor in the School of Social Sciences at Victoria University (Melbourne, Australia) and Deputy Dean of its Arts Faculty. He is a specialist in regional arms control and disarmament, particularly in the Asia Pacific region. He has published a detailed study of the South Pacific Nuclear Free Zone, and many articles on regional security, arms control and denuclearization.

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INTRODUCTION

The initial years of the new millennium have seen little substantive progress in global arms control. Lack of support from the US Bush Administration and the Republican-controlled Congress during the Clinton Administration has delayed progress in implementing or introducing several key global arms control measures, such as the Comprehensive Nuclear-Test-Ban Treaty (CTBT), establishing verification machinery for the Biological and Toxin Weapons Convention (BTWC), and adopting proposed initiatives for controlling the small arms trade (advanced at the July 2001 United Nations Conference on Illicit Trade in Small Arms).[1] In particular, the Bush Administration's focus on military intervention to deal with proliferation and terrorism threats, exemplified most recently by the 2003 military intervention in Iraq as well as scenarios for pre-emptive action against Iran[2] and other potential proliferators believed to threaten US security, have tended to divert attention from, if not actually undermine, international efforts to strengthen multilateral arms control regimes. The only exception to this lack of progress was the bilateral 2002 Moscow Treaty between the United States and Russia on further reductions in strategic-nuclear-weapon stockpiles, but this is seriously flawed by lack of verification mechanisms.[3]

A very crude—but symptomatic—indicator of the present US reluctance to support global arms control approaches was the fact that, of 52 arms control and disarmament resolutions passed by substantial or overwhelming majorities at the 2002 United Nations General Assembly (57th Session), the United States only supported 32 (compared with 47 supported by China); in the case of nuclear-weapon-related measures, the proportion was even lower, seven out of 20 widely supported initiatives.[4] Amongst the resolutions that the United States specifically voted against was one expressing concern at the "continuous erosion of multilateralism in the field of arms regulation, non-proliferation and disarmament".[5]

However, while the United States, as the world's remaining superpower, is exceptionally influential in world affairs, it would be misleading to suggest that the US stance is the only source of the present arms control impasse. There are also problems posed by regional nuclear players who remain outside the global non-proliferation regime, most notably India, Pakistan, North Korea and Israel. Recent setbacks for global

progress on non-proliferation include: the 1998 Indian and Pakistani nuclear-weapon tests in defiance of world opinion and the new norms set by the CTBT; the supposed withdrawal of North Korea from the Treaty on the Non-Proliferation of Nuclear Weapons (NPT); and past Iraqi NPT violations under Saddam Hussein. These have all served to raise the spectre of a potential rollback, or even collapse, of the international non-proliferation regime. Further, there is also the risk of holdout states assisting other countries to "go nuclear", as, for example, Israel's assistance in the past to the Apartheid South African regime by providing tritium and missile technology in return for uranium supplies,[6] and the recent disclosures and admissions that the head of Pakistan's nuclear weapons establishment covertly provided nuclear weapons assistance to Libya, North Korea and Iran.[7]

Despite these discouraging developments, and the apparent retreat from multilateralism at a global level, there is still considerable need and potential for progress to be made in arms control at a regional level, with or without the support of the nuclear powers.

In the context of increased transfer and availability of technologies of mass destruction, and further potential proliferation of unconventional capabilities to both state and non-state actors,[8] regional organizations and treaties could prove vital in maintaining and extending the non-proliferation regime, as noted at a 2002 seminar organized by the United Nations Institute for Disarmament Research (UNIDIR) and the Monterey Institute of International Studies on "Strengthening the Role of Regional Organizations in Treaty Implementation".[9]

Positive steps towards denuclearization have already been taken by a number of regional groups, such as the nuclear-weapon-free zones (NWFZs) established in Latin America (Tlatelolco Treaty), the South Pacific (Rarotonga Treaty), Africa (Pelindaba Treaty) and South-East Asia (Bangkok Treaty).[10] In all these cases, the zonal initiatives have been facilitated and fostered by the relevant regional organizations. A zone in Central Asia has reached the stage of a draft treaty.[11] Zone proposals have been advanced for several other regions, including South Asia, the Korean Peninsula and North-East Asia more generally, the Middle East, and Central and Eastern Europe; however, negotiations have yet to begin.[12]

In the case of the existing zones, none depended for their initial negotiation on the immediate support of the nuclear-weapon states (NWS), although three of the four were subsequently successful in gaining NWS ascent to binding nuclear weapons non-use or non-threat-of-use security guarantees.

Similarly, in the present case of an unpromising global arms control climate, where one or more of the nuclear-weapon powers is reluctant to accede to global agreements, there is still the possibility and urgency of negotiating and implementing regional agreements that may be both in the direct interest of the region concerned (through preventing devastating use of unconventional weapons in regional conflicts) and provide a stepping stone for revitalizing global arms control regimes when the opportunity arises.

This study will review existing NWFZs and a number of initiatives in favour of new zones that have already been taken at various levels by governments, regional organizations and non-governmental organizations (NGOs). Additionally, it will analyse both the barriers and facilitating factors affecting zone establishment, and suggest some possible ways for furthering NWFZ and weapons of mass destruction free zone (WMDFZ) initiatives.

EVALUATION OF ESTABLISHED NWFZS

The strategy of establishing NWFZs is generally seen as both a non-proliferation and security-enhancing measure for the regions themselves, and as a partial step towards eventual global elimination of nuclear weapons. The United Nations has defined NWFZs as requiring the "effective prohibition of the development, manufacturing, control, possession, testing, stationing or transporting" of nuclear weapons within the zone region, both by the regional parties and NWS.[13] NWFZ treaties, while varying according to regional needs and environments, normally include denuclearization provisions binding on the regional states, verification and compliance mechanisms, and additional protocols binding NWS to give negative security guarantees not to use or threaten to use nuclear weapons against the zone members. While recognizing that specific NWFZs might have a variety of objectives, the United Nations guidelines identify some of the key objectives in NWFZ establishment as including: strengthening the international non-proliferation regime; strengthening

regional peace and security; strengthening the security of regional states; functioning as important regional confidence-building measures (CBMs); strengthening and complementing other non-proliferation instruments; and providing "a means of expressing and promoting common values in the areas of nuclear disarmament, arms control and non-proliferation".[14]

The NWFZ approach has made gradual but substantive progress since 1967 when the Latin American Tlatelolco Treaty established the first zone in a populated region. Currently over 100 countries and the larger part of the globe, including the whole Southern Hemisphere, are part of NWFZs.

Although not spreading as rapidly or as extensively as might have first been anticipated, the progressive creation of such zones to encompass over half of the globe has certainly vindicated the vision of the Mexican diplomat and principal architect of the Tlatelolco Treaty, Alfonso Garcia Robles, who argued that the zonal approach would contribute to global nuclear-weapon elimination by gradually shrinking the areas for which nuclear weapons were seen as a legitimate part of national or regional security.[15]

This NWFZ strategy may be evaluated from several perspectives: firstly, whether it has enhanced the security of regions themselves, both from the viewpoint of preventing nuclear rivalries and arms races within the zone itself and from the viewpoint of reducing the risk of nuclear threats or blackmail from external nuclear powers; secondly, whether and to what degree the strategy has contributed to wider global disarmament and non-proliferation objectives; thirdly, whether the zonal approach has kept up with the polymorphous nature of weapons proliferation, embracing, as it now does, a witches' brew of weapons of mass destruction (WMD), radiological weapons and their means of delivery; and, fourthly, whether the regional zone strategy is a politically viable and effective one from the viewpoint of creating the necessary support and political will amongst governments, the international community and civil society to further regional and global disarmament and non-proliferation objectives.

Taking first the question of the impact of NWFZ arrangements on the security of the particular region as distinct from wider global security, assessment can be made of the Latin American, South Pacific, South-East Asian and African zones—although in the case of the latter two, established in 1996, there is only a relatively brief time period over which to assess their impact.

The Latin American zone, triggered by—and negotiated in the aftermath of—the 1962 Cuban Missile Crisis, is now almost universally adhered to by both the regional states and the nuclear powers required to sign its protocols. At the time it was signed, the two countries most likely to develop a nuclear capability and rivalry were Brazil and Argentina, with neither country initially permitting the treaty to enter into force for them. However, following the advent of civilian governments in both countries, Brazil and Argentina have since opted to join the zone. Together with bilateral inspection agreements and NPT adherence, the Tlatelolco Treaty is generally acknowledged as playing an important regional role in establishing and maintaining legally binding non-proliferation norms and providing region-wide verification and compliance mechanisms.[16] It can be argued that the Latin American NWFZ arrangements make it more difficult for national governments to defy regional pressures and norms. The region could also be considered to have improved its security from external threats through the non-use/non-threat-of-use/non-stationing guarantees that all five NWS have now provided. This would certainly be a legal constraint on a regional crisis involving nuclear weapons deployment, although it could be argued that the failure to adequately control transit is a major problem, as was illustrated by British deployment of nuclear-capable, if not armed, vessels during the Falklands War. Other regional security advantages that flowed directly or indirectly from the Tlatelolco Treaty include: the provision of forums for promoting regional discussion; monitoring and transparency on nuclear and arms control issues; and providing an impetus to further CBMs in the region, for example, on landmines and small arm transfers and controls.

In the case of the 1985 South Pacific Nuclear Free Zone Treaty (SPNFZ), it might be argued that its advent has made little difference since, unlike Latin America, there are no obvious potential nuclear rivalries in the region, nor is there any major threat from the nuclear powers. It should be noted, however, that historically the Australian government did consider developing nuclear weapons during the 1950s, and declassified official documents indicate that Australian defence officials pressed for the development of an indigenous Australian nuclear-weapon capability right up until 1972, just over a decade before the zone was negotiated.[17] It should be noted also that Australia and New Zealand, like many other developed countries, have the scientific and technical expertise to develop nuclear weapons. Further, Australia has long been concerned about potential security threats to its north, most notably from Indonesia, whose

government has begun to develop a nuclear energy programme, despite the presence of large oil reserves. External nuclear powers have not, of course, made overt military nuclear threats against South Pacific countries, but Russian and Chinese nuclear forces could conceivably target the region—particularly US signals intelligence installations located within it—and, over a period of 50 years, from 1946 to 1996 (when France last carried out tests), the three Western nuclear powers (France, the United Kingdom and the United States) have at various times and locations carried out extensive nuclear weapons testing, generating widespread concern about health and environmental effects across the region.[18] In this context, the Rarotonga Treaty, together with the CTBT, can at least be credited with improving regional security by discouraging a recurrence of nuclear testing by external powers now that all the NWS except the United States have ratified the treaty (France finally doing so in 1996), and by further locking the two nuclear-capable regional states into non-proliferation regimes.[19]

Even more importantly, the SPNFZ has acted as a CBM and regional arms control model in relation to the neighbouring region of South-East Asia.[20] Just one decade after the signing of the Rarotonga Treaty, members of the Association of Southeast Asian Nations (ASEAN) concluded their own NWFZ. While the two zonal developments had their own rationale, the prior negotiation of the SPNFZ showed the feasibility of negotiating such zones in a diplomatic context where not all the NWS were supportive, and created more conducive conditions for the ASEAN zone in the sense of promoting confidence that Australia would not seek nuclear weapons. As one regional analyst has noted, the establishment of zones in both regions would enable Australia and Indonesia to signal "to each other their intention to defuse any nuclear competition that could otherwise arise between them. The signals would be backed by the assurance that it would be difficult for each to go against a regional treaty that they had signed."[21] Thus, the South-East Asian and South Pacific regions can be said to have headed off at least one potential nuclear rivalry by putting in place additional regional zone mechanisms for demonstrating commitment to non-proliferation norms. This is the kind of virtuous arms control spiral that offers an alternative to the vicious circle of nuclear proliferation that, for example, has proved so dangerous in South Asia where India developed nuclear weapons to counter China's nuclear threat only to provoke an equally serious nuclear threat on its western border with Pakistan.

The 1995 Southeast Asia Nuclear-Weapon-Free Zone has not only served to ease potential rivalry with nuclear-capable Australia but also lessened the chances of regional states moving towards nuclear weapons development. Indonesia and the Philippines both have nuclear energy programmes, while Thailand is also considering such a programme.[22] In the past, the region has hosted major NWS bases in the form of the Soviet base at Cam Ranh Bay in Viet Nam and the US base at Subic Bay in the Philippines. There is some evidence too that during the First Indochina War, the United States contemplated using nuclear weapons in Viet Nam during the battle of Dien Bien Phu. Although ultimately rejected, "Operation Vulture", a plan drawn up by US and French officers, called for massive air bombardment of Viet Minh positions and supply lines to relieve the besieged French garrison, including possibly the use of atom bombs. During the period 1992–1995 when the zone was being negotiated, ASEAN members were also becoming increasingly concerned with the likelihood and effects of nuclear proliferation in the adjoining regions of the Korean Peninsula and South Asia, as well as China's increasing nuclear-weapon capabilities and territorial claims in the South China Sea.[23]

The Bangkok Treaty came into force for regional states in 1997, but it has yet to secure NWS agreement to its negative security protocols. The principal concerns centre on NWS, particularly US, objections to the coverage of the treaty, which extends to the exclusive economic zones (EEZs), and the implications for US transit, transport and perceived right to deploy and even use nuclear weapons from international waters within the zone. As such, the treaty has not yet proved successful in achieving all its objectives in terms of security guarantees from external nuclear powers. However, the Southeast Asia NWFZ Commission is continuing to actively negotiate a mutually acceptable agreement on negative security protocols with the NWS,[24] and appears to have already secured Chinese acceptance. The final agreement is likely to bring the negative security agreements more into line with those of the Rarotonga and Tlatelolco Treaties in terms of continuing to permit NWS nuclear- weapons transit in the international spaces of the zone.

Despite the fact that it has yet to achieve all its security aims, the Bangkok Treaty is expected to have a number of beneficial impacts within the region and beyond. One analyst from the region has identified some of the benefits as: the creation of a regional verification system; enhanced transparency on nuclear activities; establishing "a consultative precedent

for the solution of regional problems"; and the positive non-proliferation example for neighbouring regions.[25] In terms of potential conflicts with China over its claims in the South China Sea, some observers believe that the inclusion of the EEZs was aimed at constraining China and other powers from potentially nuclearizing their military presence in the region, and that the treaty's emphasis on dispute-resolution and verification mechanisms serves to strengthen ASEAN's "Declaration on the South China Sea", which calls for renunciation of the use of force.[26] At a wider level, the negotiation and signing of the Bangkok Treaty has served as a basis for ASEAN to voice its opposition to nuclear testing and further proliferation in the Asia Pacific region, especially in South Asia.[27]

In the case of the newest zone, the African Pelindaba Treaty, signed in 1996 but not yet in force, the treaty represents the culmination of a lengthy campaign for African denuclearization pursued by a number of African states that began in the early 1960s, even before the negotiation of the Tlatelolco Treaty.[28] The stimulus at that time was French nuclear testing in the Sahara Desert during 1960–1961, but was reinforced in subsequent years by concerns over the South African Apartheid regime's nuclear energy development programme that commenced in 1948 but was revealed to have progressed to uranium enrichment by 1970 and weapons development by 1977. It was subsequently revealed in 1993 by South African President De Klerk that South Africa had indeed built six nuclear weapons, but had since dismantled them.

The treaty, once it comes into force, will certainly enhance security in the region by complementing and strengthening international treaties (such as the NPT and CTBT) to prevent further nuclear-weapon activities and testing, either by external powers, as occurred in the case of the French testing, or by regional states, as in the case of South Africa. Further, as one of the key negotiators of the treaty has noted, it contains additional security enhancing provisions aimed at protecting regional states from attacks on civilian nuclear installations, misuse of nuclear materials and nuclear-waste dumping. At the same time, it has already received support from NWS in terms of providing negative security guarantees for the zone, although Russia and the United States have signed but not yet ratified the relevant protocol. As Sola Ogunbanwo, chief United Nations expert advisor to the zone, has noted, the main ways in which the treaty is expected to enhance regional security include preventing a nuclear arms race on the continent, protecting the environment, offering assurances against nuclear weapons

use or threat of use by external NWS, and enhancing control over nuclear commerce.[29] It is also expected to have a beneficial effect on the neighbouring Middle East region, particularly since some of the countries that have already signed the Pelindaba Treaty (e.g., Egypt, Libya and Sudan) are also potential parties to a Middle East NWFZ or WMDFZ.

In terms of the wider general functions of NWFZs in addressing global disarmament and non-proliferation objectives, there are several ways in which they appear to be making a contribution. Firstly, they reduce the areas of potential proliferation, thereby making the remaining proliferation problems a little more manageable. Secondly, they reduce the potential fields of application for states already possessing nuclear weapons, thereby making such weapons less relevant. In the absence of legally binding non-use guarantees by the NWS for all non-nuclear-weapon states (NNWS), NWFZs have so far been the only means of securing such guarantees. Thirdly, they provide both normative and legally binding means for ensuring that all regional states adhere to more universal agreements, thereby helping to fill gaps in the regional coverage of some non-proliferation agreements. This has certainly been the case in Latin America, where some of the original holdout states, such as Brazil, Argentina and Cuba, have now signed the NPT and International Atomic Energy Agency (IAEA) safeguards agreements. Finally, NWFZs serve as a further layer of non-proliferation commitments in the event of a collapse of the NPT. Unlike the NPT, they do not have an inherently discriminatory character, and impose comparable obligations on both NWS and NNWS in relation to prohibiting the permanent stationing or deployment of nuclear weapons in the region concerned. The collapse of the NPT is certainly not beyond the bounds of possibility, given the recent supposed withdrawal by North Korea, potential withdrawal by Iran, and long-established dissatisfaction amongst many NNWS that the NWS have not kept their side of the bargain under Article VI, as evident in the little progress made on the 13 steps called for in the final document of the 2000 NPT Review Conference.[30]

On the criteria of whether NWFZs have kept pace with the polymorphous character of proliferation, the experience of the four existing zones in inhabited areas suggests that the NWFZ concept has not changed sufficiently to meet such new threats. Even the most recent zones, such as the African and South-East Asian zones, continue to focus almost exclusively on nuclear weapons. While it can be argued that nuclear weapons are in a class of their own in terms of the potential for mass, regional or even global

destruction, the risks from chemical and biological weapons (CBW), and long-range missile delivery systems (including cruise missiles), are now more keenly appreciated by the international community, particularly in contexts where such weapons might be acquired by non-state actors. Further, potential regional and extra-regional actors may make links between possession of one type of weapon and the threat posed by another. Both Israel and the United States have from time to time indicated reluctance to assent to non-use guarantees in relation to nuclear weapons on the grounds of other unconventional threats (e.g., CBW). This suggests a potential need to revise the NWFZ concept to include all WMD (a WMDFZ), or the simultaneous negotiation of a suite of separate zonal treaties relating to each category of weapon. In terms of existing agreements, there has so far been little consideration of extending their scope.

There is also a problem of insufficient attention given to proliferation threats deriving from non-state actors, particularly terrorist organizations, illicit arms dealers and WMD materials suppliers, individual scientists and technicians motivated by ideology or personal gain, and other black market entrepreneurs, seeking to evade governmental controls. There is an obvious need for major reviews of all the existing treaties to either strengthen the treaties themselves, or to start the process of negotiating complementary regional treaties governing chemical, biological, missile and non-state actor proliferation issues. Indeed, representatives of the US Mission to the Conference on Disarmament (CD) in Geneva have suggested that the United States would be very likely to welcome strengthening of existing treaties in relation to threats from non-state actors.[31] NWFZ treaties, could, for example, be amended to: strengthen mechanisms and resources for detecting and monitoring potential nuclear-weapon and WMD-related activities and transfers by non-state actors within each zone; require domestic legislation to impose penalties and sanctions on such actors; and coordinate regional responses to eliminating the threat posed by non-state-actor proliferation.

It has been argued that WMDFZ arrangements are redundant in the context of the Chemical Weapons Convention (CWC) and BTWC. However, at present neither convention has universal adherence, and the United States and some other countries have opposed the introduction of a more rigorous verification system for the BTWC, either because of perceived adverse effects on their own bioscience industries or because they believe that such a protocol would not be feasible. In this context,

negotiation of WMDFZs may have the beneficial effects of encouraging regional holdouts to adhere simultaneously to the CWC and BTWC, and to generate relevant national legislation.

The fourth aspect in evaluating the existing zone approach is the question of its politically viability in terms of gaining support amongst governments, the international community and civil societies. The approach has certainly proved viable at the United Nations and some regional organizations over a lengthy period of three decades spanning the Cold War and the post-Cold War eras, and many vicissitudes in global arms control policy and processes. The United Nations has successfully developed norms and guidelines for the establishment of NWFZs, and has been a major forum for both gaining international recognition of such zones and for political pressure to gain maximum adherence to the treaties, both from zonal states and the NWS. It has also played an active role in the negotiation of at least one of the zones, the Pelindaba Treaty, providing expert assistance and resources throughout the negotiation process.[32] While the NWS have sometimes been reluctant to sign the relevant treaties (and are still holding out in the case of the Bangkok Treaty), they have generally been prepared to agree in principle to the concept, albeit with some reservations.[33] Many regional governments have found the concept helpful both in terms of improving regional security through avoiding nuclear rivalry and in terms of asserting regional interests in arms control. Since the approach does not necessarily depend on the prior assent of the NWS, although most regions have in fact consulted with the NWS before and during negotiations, the NWFZ approach is not hostage to potential veto by either the NWS or a single member of consensus-based global disarmament forums.

It should also be noted that, unlike some arms control measures, the concept and definition of NWFZs—the notion of the complete absence of nuclear weapons—is relatively simple, unambiguous and easily grasped. It is therefore potentially easier for the concept to win support at the civil society level. While most of the existing NWFZs have been initiated by diplomats and politicians working at the national, regional and international levels (often simultaneously), at least one of the zones was developed in response to grassroots NGO campaigns and supportive public opinion. This was the South Pacific Nuclear Free Zone Treaty, which followed on, and sought in part to address, the concerns of large-scale peace movement campaigns against nuclear-weapon deployment and testing in the region.[34]

The campaigns of peace organizations and international NGOs, like the Nuclear Free and Independent Pacific movement, were successful in having Labour parties in both Australia and New Zealand put the issue of a NWFZ on their agendas, and generating sufficient political will for the negotiations to begin. Although the eventual SPNFZ had neither the rigour nor the comprehensiveness sought by many NGOs and some Pacific Island states, the experience certainly demonstrated the political viability of a disarmament initiative pursued initially at the civil society level.

INITIATIVES TO ESTABLISH NEW NWFZS OR WMDFZS

There are a number of regions for which NWFZs, or other types of zonal arrangement, are currently proposed. These include the Middle East, Central Asia, North-East Asia (or, at least, the Korean Peninsula within that region), South Asia and Central Europe. All these regions are either conflict prone or contain countries that have nuclear weapons or have hosted nuclear weapons in the past.

These proposals and initiatives may be considered according to their stage of development: that is, whether they have reached the point of negotiation, or are at the stage of having been agreed to in principle, or are merely a proposal from a government, research institute or NGO.

CENTRAL ASIA NWFZ INITIATIVE

The most advanced of the present zone proposals is the Central Asia NWFZ, involving the five regional states of Kazakhstan, Kyrghyzstan, Tajikistan, Turkmenistan and Uzbekistan. During the Cold War, Central Asia was host to major Soviet nuclear facilities, including nuclear missiles and tactical weapons (now all withdrawn back to Russia), nuclear test sites (e.g., at Semipalatinsk), nuclear reactors, and uranium mining and processing.[35]

The Central Asia NWFZ concept was first endorsed at a meeting of the five leaders of these states at Almaty in 1997 (following a 1993 proposal from the President of Uzbekistan),[36] and further developed at a meeting of foreign affairs ministers in Tashkent later in the same year. It then became the subject of intensive negotiation at consultative meetings of experts at

Bishkek, Geneva, Tashkent and Sapporo over the period April 1998 to April 2000.[37] These meetings, convened by the United Nations Regional Centre for Peace and Disarmament in Asia and the Pacific, included not only Central Asian representatives but also United Nations experts and representatives of the NWS. A further meeting at Samarkand, Uzbekistan, on 27 September 2002, attended by government experts from both the Central Asian countries and the NWS, agreed on the text of the whole treaty, but the Western NWS sought further consultations and clarifications of aspects of the draft treaty and its protocols.[38] Central Asian states indicated their intention in a December 2002 United Nations General Assembly (57th Session) resolution "to sign the Central Asian Nuclear-Weapon-Free Zone Treaty as soon as possible".[39] The United Nations resolution invited all Central Asian states to "continue their dialogue with the five nuclear-weapon states" on the establishment of the zone. Further consultative meetings of experts from the Central Asian states and the NWS were held in New York in October and December 2002 to discuss the treaty and its protocols. By the end of 2002, Russia and China were ready to sign the treaty but the three Western NWS wanted further consultations.[40] At the May 2003 NPT Preparatory Committee (PrepCom) meeting, the five Central Asian states "reaffirm[ed] their intention to sign a treaty on the establishment of a nuclear-weapon-free zone in Central Asia". Kazakhstan has indicated that further Central Asian internal discussions would be held followed by another round of consultations with the NWS. In December 2004, the United Nations General Assembly (59th Session) reaffirmed by consensus its previous resolution in support of "establishing a nuclear-weapon-free zone in Central Asia",[41] and in late 2004 Nobuyasu Abe, United Nations Under-Secretary-General for Disarmament Affairs, indicated that the United Nations Regional Centre for Peace and Disarmament in Asia and the Pacific was continuing its efforts to assist the negotiation of the Central Asia NWFZ.[42]

According to the Chairman of the Group of Experts that drew up the draft treaty, the text contains similar provisions to the Tlatelolco and Rarotonga Treaties in relation to banning nuclear weapons research, development, production, deployment and stationing, and imposing full-scope IAEA safeguards and NWS negative security guarantees.[43] However, the treaty may contain comparatively weaker provisions than other zones on the issues of transit and temporary transport or deployment of nuclear weapons, and does not include territorial waters, since the Caspian Sea is also bordered by non-zone countries, including Russia, Azerbaijan and

Iran.[44] The integrity of the zone may be compromised by the existence of both US and Russian military bases in the region (for example, the US air base established in 2001 at Kant in Kyrghyzstan, and the new 2003 Russian air and rapid deployment force base also established at Kant)—unless there are binding commitments not to deploy or station nuclear weapons at such bases.

The draft treaty also contains provisions that reflect and address the legacy of past Soviet nuclear weapons testing and uranium mining in the region, including clauses that prohibit the disposal of radioactive waste from other states within the zone, pledge parties to assist each other in cleaning up contaminated areas, and ban the export of nuclear materials to NNWS that have not signed IAEA full-scope safeguards.[45]

One obstacle from the viewpoint of the Western NWS is the potential for conflict with existing security arrangements between some regional states and Russia under the 1992 Tashkent Collective Security Treaty between Russia, Belarus, Armenia, Kazakhstan, Kyrghyzstan and Tajikistan.[46] Article 12 of the draft text apparently would permit all previously concluded treaties to remain in force. This would not necessarily be a major problem if there were no conflict between previous treaties and the new treaty. However, Article 4 of the Tashkent Treaty refers to the possibility of signatories providing each other "all necessary assistance, including military assistance" in response to aggression, a wording that could conceivably be interpreted as covering nuclear or other unconventional means.[47] Certainly, in the case of the SPNFZ, the existence of a security alliance between Australia and the United States did not prevent establishment of the zone, but the Rarotonga Treaty does not include similar wording to Article 12. It is possible, however, that clarifying declarations from Russia and parties to the treaty may serve to address the Western concerns.

Another significant concern of the United States relates to the geographical boundaries of the zone. The draft treaty permits expansion to neighbouring states bordering on the zone. This would potentially allow Iran and Afghanistan to join it at a later date. Iran is usually seen as part of a potential Middle East NWFZ but there is nothing to prevent a country being simultaneously a member of two zones. Egypt, for example, would be an essential member of a Middle East NWFZ but has already joined the African NWFZ. In the case of Iran, its membership in a Central Asia NWFZ,

with the additional verification mechanisms this would entail, would assist in constraining it from acquiring nuclear weapons. Yet, surprisingly, one of the concerns of the present Bush Administration about the zone is the very fact that it might allow Iran to join at a future date.[48] On one level, one might expect that the United States would be happy to see Iran locked into a verified NWFZ. However, on another level the United States might well encounter political problems in entering into binding negative security guarantees with a country that the US security establishment believes is not honouring agreements to which it is already a party, particularly the NPT. In the case of Afghanistan, the United States does not seem to have similar concerns. The issue of Iran's membership, however, need not necessarily be a major obstacle to the conclusion of the treaty. As Jozef Goldblat notes, if no accession clause were included, the parties would still be free to amend it later to include additional countries.[49]

The Central Asia NWFZ, once established, could be expected to enhance the region's security and contribute to wider non-proliferation objectives in a number of ways. As a region that was host to a wide range of Soviet nuclear weapon, nuclear fuel, and nuclear test and research facilities, the proposal would serve to lessen the chance that the remaining facilities, now controlled by the new Central Asian republics, would become centres for re-nuclearization and proliferation in this sensitive region. Kazakhstan, for example, still possesses research reactors at Almaty and Kurchatov, a fabrication unit at Ust-Kamenogorsk, and numerous uranium mines in the southern and north-central regions of the country.[50] Kyrghyzstan possesses uranium mines and the Kara Balta Ore Processing Combine that is continuing to mill uranium from Kazakhstan.[51] Uzbekistan has two small research reactors in the vicinity of Tashkent, together with numerous uranium mines in the east of the country.[52] It would also serve to improve environmental security in the region, both in terms of cleaning up past nuclear test sites and avoiding further use of the region for testing and nuclear-waste dumping. Finally, in a region surrounded by NWS, it would serve, through its negative security provisions, to lessen the chance of nuclear weapons use or threat of use by nuclear powers neighbouring the region, and to diminish the risk of further proliferation in response to nuclear developments in India and Pakistan.

Middle East NWFZ and WMDFZ proposals

The proposal for a Middle East NWFZ has a much longer history than the Central Asia NWFZ proposal, but is far less advanced in terms of prospects for negotiation and actual adoption. In a context of continuing severe conflicts between regional states, particularly between Israel and its Arab neighbours, coupled with widely held assessments that Israel has already acquired nuclear weapons and that several other states in the region have in the past or are now actively seeking nuclear or other WMD capabilities, the desirability of establishing such a zone is widely recognized both by regional states and the world community. Indeed, the United Nations resolution calling for a Middle East NWFZ, first introduced by Egypt and Iran in 1974, has attracted consensus support since 1980—including the qualified endorsement of Israel, which has supported the concept but argued that it cannot proceed until peace settlements are achieved with its neighbours.

Unfortunately, despite a number of innovative expert studies of ways forward commissioned by the United Nations Secretary-General and UNIDIR, no steps have so far been taken towards actual multilateral negotiations on the zone. In particular, the 1996 UNIDIR study *A Zone Free of Weapons of Mass Destruction in the Middle East* developed a carefully staged plan, involving a step-by-step process over a number of years, and protecting the security of all parties at each stage.[53] An obvious difficulty has been the continuing climate of extreme distrust and hostility between the Israelis and Palestinians, although the recent talks between Israel and the Palestinians, Israeli withdrawal from Gaza, and agreement on a ceasefire between the parties, including militant Palestinian groups, has increased the prospects for a settlement of this conflict. A further difficulty is that the Israeli government continues to argue that negotiations on such a zone can only be entertained following peace settlements with all of its Arab and Islamic neighbours. There is also the possible linkage between nuclear weapons and CBW, involving the perception that the nuclear option may be needed as security against chemical or biological attack, particularly in relation to regional states pursuing CBW programmes. Another difficulty has been the absence of a single regional organization involving all regional actors. The regional organization with the largest membership is the League of Arab States, but this, of course, does not include Israel or Iran. The Madrid Conference did establish a Middle East Arms Control and Regional

Security (ACRS) working group in 1991 as a forum to discuss regional arms control initiatives, but so far with few productive outcomes.

In February 2003, UNIDIR and the League of Arab States jointly organized a conference in Cairo on "Building a Weapons of Mass Destruction Free Zone in the Middle East: Global Non-Proliferation Regimes and Regional Experiences" to discuss and explore further possibilities for establishing a Middle East WMDFZ. The conference was attended by delegates from 13 Arab countries (mainly drawn from foreign affairs, defence and atomic energy authority staff), representatives from UNIDIR, the United Nations Department for Disarmament Affairs and the IAEA, and other experts. Conference presentations reviewed the scale of the proliferation problem in the region, noting that some regional states are said to be carrying out research on technologies that could be applicable to nuclear weapons development, and others were thought to be developing or had already deployed chemical and/or biological weapons, as well as long-range missile systems. The presentations also reviewed the history of NWFZ and WMDFZ proposals for the region, noting the various United Nations and IAEA reports on the feasibility of establishing and verifying such a zone. It was also noted that in 1990 consultations agreement was reached between Arab states, Israel and Iran on a number of aspects of establishing such a zone, including: its geographic boundaries; the need for positive security guarantees beyond the usual negative security guarantees and 1968 Security Council resolution 255 guarantees; more far-reaching verification arrangements, including bilateral inspection rights; and initial CBMs.[54]

The specific proposal for a WMDFZ was first made by President Hosni Mubarak of Egypt in 1990, not with the aim of replacing the existing Middle East NWFZ proposal, but rather as an idea that could be "pursued in parallel" with the earlier proposal.[55] The 1995 NPT Review and Extension Conference endorsed this broader WMD concept, calling for a zone that would be free of all WMD and their delivery systems. Israel, however, is not a party to the NPT.

A number of suggestions for furthering the WMDFZ proposal were advanced and discussed at the meeting. One of the most detailed was that proposed by Egypt's Mohammed Kadry Said, who outlined a three-phase plan for establishing such a zone: an initial phase of confidence- and security-building measures coupled with a "no-first-use" pledge; a second

phase of verified capping of existing WMD stocks and a freeze on the production of fissile materials; and a third phase of establishing the WMDFZ itself through the phased elimination of WMD stockpiles and final elimination following the normalization of relations between Israel and its Arab neighbours.[56] Another very concrete proposal was for the establishment of a Middle East global and regional monitoring and verification system analogous to the IAEA–Euratom system in Europe and the Brazil–Argentine Agency for Accounting and Control of Nuclear Materials system in Latin America. This would be a first step towards a NWFZ. If the wider concept of a WMDFZ were pursued, then the need would be to establish a "cooperative integrated monitoring and verification system" covering the whole gamut of nuclear, chemical, biological and missile delivery systems.[57] The IAEA representative further noted the commitment of the IAEA, reaffirmed at annual conferences of the agency, to prepare model safeguards agreements as a step towards a Middle East NWFZ or WMDFZ arrangement.[58] In terms of how a Middle East WMDFZ might be initiated, UNIDIR's Patricia Lewis and Jozef Goldblat emphasized respectively the importance of learning from other regions,[59] and the need to avoid some of the deficiencies in existing zonal arrangements, particularly making withdrawal provisions too permissive rather than requiring a material breach of obligations.[60]

A further related initiative that the League of Arab States is already undertaking is a project to prepare a draft Middle East WMDFZ treaty.[61] The IAEA has offered its assistance in this project.

North-East Asia denuclearization and NWFZ initiatives

North-East Asia is a region that continues to experience severe conflicts and tensions associated with the division of the Korean Peninsula into North and South, and the legacies of both the Second World War (especially the Japanese occupation of the Peninsula) and the Korean War (involving both the United States and China). The risks of WMD proliferation in the region are extremely high. North Korea has recently claimed to have withdrawn from the NPT, declared that it has already acquired nuclear weapons,[62] and possesses medium- and long-range missile delivery systems. While there is uncertainty about North Korea's nuclear capability since it has not yet conducted any overt nuclear tests, some experts believe that it has definitely produced one or two nuclear weapons.[63] South Korea has in the

past considered developing nuclear weapons and has the technical expertise to do so, but currently remains an NPT signatory.[64] Japan, for its part, has not only the technical expertise to develop nuclear weapons, but also a stockpile of weapon-grade plutonium and missile capabilities.[65]

While Japan and South Korea have bilateral security alliances with the United States, the North Korean decision to acquire nuclear weapons—if not reversed by further multilateral negotiations involving North Korea, the United States, China, Russia, Japan and South Korea—may well have a destabilizing effect in and beyond the region, providing both incentives and rationales for South Korea and Japan to acquire nuclear weapons and other WMD.

The only concrete zonal initiative to have so far been agreed in the region is the 1992 "Joint Declaration of the Denuclearization of the Korean Peninsula" signed by both North and South Korea. The declaration committed the parties not to test, produce or deploy nuclear weapons, or undertake reprocessing and enrichment activities, but lacked a stringent verification and compliance system, and did not prevent external powers from stationing nuclear weapons on the peninsula.[66] In the event, even this initial flawed step was nullified by the decision of North Korea to acquire nuclear weapons.

Despite the security interdependence of this region, there is no North-East Asian regional political forum analogous to ASEAN, the African Union, the Organization of American States or the European Union, with regional states preferring to rely on bilateral relationships: North Korea with China, and Japan and South Korea with the United States. This has meant that there have been fewer regional opportunities to discuss and explore the establishment of cooperative security agencies and arrangements, such as the Organization for Security and Co-operation in Europe (OSCE), although since the 1990s the ASEAN Regional Forum (ARF) has begun, in a limited way, to play this role.[67]

However, there have been a number of NGO and academic proposals for NWFZ arrangements in the region. In particular, the Japanese NGO Peace Depot has long argued for the establishment of a North-East Asia NWFZ, and has received funding from the Toyota Foundation to research and develop the proposal more fully.[68] The Peace Depot research project is exploring several interrelated North-East Asian security frameworks,

including the NWFZ concept, a zone for exclusively defensive defence, a regional missile control system and enhanced utilization of ARF. There has also been a "Track II" initiative involving a series of meetings between academics, retired defence officers and diplomatic representatives from the region to explore the concept of a limited NWFZ in North-East Asia.[69] The proposal, first initiated in 1992 through the Center for International Strategy, Technology and Policy at Georgia Institute of Technology, focuses on the idea of establishing a circular or elliptical zone encompassing Japan and the two Koreas and banning the deployment of tactical nuclear weapons anywhere in the zone as a first step towards more comprehensive denuclearization. A further proposal was advanced by Andrew Mack, focusing on a zone that would include: bans on acquisition, testing and stationing of nuclear weapons; negative security guarantees from the NWS; bans on nuclear-waste dumping; and bans on the production or importation of fissionable materials.[70]

The Six Party Talks between North Korea, the United States, China, Russia, Japan and South Korea that began in Beijing in August 2003 offer some potential for generating new regional arms control initiatives that would improve the security of all states in the region. North Korea, with the support of Russia and China, has proposed the concept of a freeze on its nuclear weapons programme in return for US security guarantees, but the Bush Administration continues to be sceptical about the verification aspects of such a freeze.[71] The June 2004 round of talks ended on a slightly more positive note with North Korea indicating that it was prepared to consider a freeze or even a complete end to its nuclear-weapon programme in return for economic aid and security guarantees, and the United States indicating a new willingness to reciprocate in terms of entering into (unspecified) security guarantees and offering economic aid. The US decision to withdraw around a third of its forces stationed in South Korea could be expected to foster an improved negotiating climate.

It should also be noted that, even if the tensions between North and South Korea can be constructively addressed, there remain longer-term possibilities of tension between the two Koreas and Japan. From this viewpoint, a broader NWFZ or WMDFZ would offer a preferable long-term security arrangement than zones restricted to the Korean Peninsula. The proposal to establish a North-East Asia NWFZ, which, as in the case of other NWFZs, would involve negative security guarantees from the existing nuclear powers, would seem to be consistent with both North Korea's

emphasis on obtaining security guarantees from the United States and with recent indications from the Bush Administration that it is prepared to consider multilateral arrangements to provide some form of security guarantee in return for North Korean abandonment of its nuclear weapons programme.

South Asia NWFZ initiative

As the Indian and Pakistani nuclear tests in 1998 demonstrated, the South Asian region is already engaged in a nuclear arms race. As of 2002, India was estimated to possess around 30–35 warheads and had enough fissile material to build up to 95 warheads.[72] Pakistan was thought to possess around 24–48 warheads, and had enough fissile material for up to 52 weapons.[73] Further, both countries possess and are continuing to develop short- and medium-range missile delivery systems that will result in very short warning times for any strike, and are likely to increase the risk of accidental or miscalculated nuclear war.[74] Neither India nor Pakistan is party to the NPT or CTBT. South Asia is also a region where there are many sources and triggers for conflict and war, not least being the dispute over Kashmir (which has already led to two wars and many border crises) and the wider tensions between Hindu and Moslem communities. If a nuclear war were to break out the scale of casualties would be almost unimaginable. One analyst from the region has estimated that even a limited nuclear exchange would kill or injure over two million people and expose over 20 million to radiation.[75] There would also be massive refugee movements, fallout throughout the Northern Hemisphere, long-term ecological damage, and other economic and social effects affecting the whole world.

In addition to the nuclear threats posed by Indian and Pakistani proliferation for the South Asian region itself, there is also the question of what role these countries might play in encouraging the spread of nuclear weapons to other regions. As recently acknowledged by the Pakistani government, the then head of Pakistan's nuclear weapons programme, Dr Abdul Qadeer Khan, actively organized a network of clandestine nuclear assistance to Libya, North Korea and Iran in the form of uranium enrichment technology, equipment and know-how during the late 1980s and 1990s.[76]

There have been long-standing proposals at the United Nations for the establishment of a South Asia NWFZ. From 1974 to 1997 Pakistan sponsored an annual resolution in the General Assembly calling for the creation of such a zone.[77] While the proposal gained support from most of the international community, including the NWS, it was opposed by two regional states, India and Bhutan. India was primarily opposed on the grounds that a zone in South Asia would not address its security concerns about China's nuclear weapons, and also argued that NWFZs delayed the attainment of general and complete disarmament.[78]

Following the 1998 tests, there were widespread expressions of concern and alarm in the international community, and the 2000 NPT Review Conference again called for the establishment of a South Asia NWFZ.[79] However, following the tests, the attitude of both India and Pakistan hardened against the NWFZ proposal, with Pakistan joining India in opposing the NWFZ idea in the First Committee of the United Nations General Assembly (53rd Session) in 1998.[80] Despite these setbacks, however, some regional states, such as Bangladesh, have continued to express strong support for a South Asia NWFZ.[81]

While no progress has been made on the regional zone concept despite widespread international support, there have been continued NGO calls for the establishment of such a zone. The 2000 "Uppsala Declaration on Nuclear-Weapon-Free Zones", representing a wide cross-section of NGOs, including Indian and Pakistani anti-nuclear NGOs, called for a South Asia NWFZ,[82] and, more recently, Achin Vanaik of the Movement in India for Nuclear Disarmament has suggested that as a first step and CBM, India and Pakistan could agree on declaring Kashmir a NWFZ.[83]

Future progress on South Asian denuclearization proposals will depend greatly on civil society initiatives to increase public awareness of the issues within the region itself and on renewed efforts by the major powers and the international community to engage the parties in arms control and non-proliferation discussions. In the case of the United States, non-proliferation strategies appear to have been put on the backburner in return for gaining Pakistani and Indian support for the war on terrorism.[84] However, representatives from the US Mission to the CD in Geneva have indicated that the United States is continuing to pursue non-proliferation approaches with the two South Asian powers through quiet diplomacy and bilateral military assistance in nuclear-weapon safety systems.[85]

One positive development is the recent thaw in Indian-Pakistani relations following the meeting of Prime Minister Atal Bihari Vajpayee and President Pervez Musharraf at the January 2004 meeting of the South Asian Association for Regional Cooperation (SAARC). This led to a further bilateral meeting between the Indian and Pakistani foreign ministers in Islamabad on 17 February 2004 that resulted in an agreement to pursue a "composite dialogue" on a range of issues, including the Kashmir conflict, peace and security, and CBMs on avoiding accidental nuclear war.[86] The positive climate has been further enhanced by the return to power of the Congress Party in the 2004 Indian national elections. The government has pledged to continue the dialogue process with Pakistan. Further talks were held on 19–20 June 2004 between the two foreign ministries, and agreement was reached on both maintaining a moratorium on further nuclear tests and establishing a hotline to "prevent misunderstandings and reduce risks relevant to nuclear issues".[87] Subsequently, on 23 July 2004, the Pakistani President and the Indian Foreign Minister, Natwar Singh, agreed on developing a formal system for early notification of missile tests.[88] Despite these new diplomatic initiatives, both countries are continuing to test new missile systems, including the Pakistani tests of the Ghauri V long-range missile on 2 May 2004 and its Hatf missile on 4 June 2004, and the Indian test of the Brahmos supersonic cruise missile on 13 June 2004.[89]

As Susan Willett proposed in a recent UNIDIR study of the region, the immediate possibilities here might include agreements on a moratorium on weaponization and deployment of nuclear warheads, cooperation on improving the safety of command and control systems, hotlines to minimize the risk of miscalculation in a crisis, a bilateral test-ban agreement, conventional and missile arms control, and limits on arms transfers.[90] Further international and regional pressures from the great powers, especially the United States and the European Union, and from regional neighbours, may yet serve to persuade India and Pakistan that their previous policies of nuclear rivalry and arms competition are likely to reduce rather than enhance their own security and that of their regional neighbours.

Central and Eastern European NWFZ initiatives

During the Cold War, Central Europe was a major theatre of confrontation between the Warsaw Treaty countries and the North Atlantic

Treaty Organization (NATO), with substantial numbers of nuclear-armed missiles, nuclear bombs and tactical nuclear weapons deployed in the region. Following the end of the Cold War, this nuclear presence was substantially reduced, with 150 US nuclear gravity bombs now remaining in NATO European countries.[91] Other US nuclear weapons were withdrawn as a result of the 1987 Intermediate-Range Nuclear Forces (INF) Treaty and the 1991–1992 Presidential Nuclear Initiatives to withdraw ground- and sea-launched nuclear weapons.[92] In terms of Russian nuclear weapons, all Russian tactical and strategic nuclear weapons were returned to Russia from Belarus. It was further agreed that the former territory of East Germany following reunification would be denuclearized, a kind of de facto NWFZ enclave within Central Europe.

Central Europe was the first region for which NWFZ proposals were advanced. In 1958 Polish Foreign Minister Adam Rapacki proposed a denuclearized zone covering East and West Germany, Poland and Czechoslovakia.[93] Although the nuclear presence and tensions in the region have greatly diminished, Belarus and Ukraine, since gaining their independence, have repeatedly argued for the establishment of a Central and Eastern Europe NWFZ to address the risks of re-nuclearization, either through NATO redeployment or through the technical capacity of most states in the region to develop and acquire their own nuclear weapons.[94] However, other Central European states, particularly those who have joined or are seeking to join NATO, have been reluctant to endorse the concept. Originally, opposition to the Rapacki Plan was based ostensibly on the notion that nuclear weapons needed to be based in the region to counter a perceived conventional force superiority of the Warsaw Treaty. This seems less relevant now with the disbandment of the Warsaw Treaty and the end of the Cold War, and current reservations would appear to be more related to NATO's continued doctrinal insistence on the right to deploy nuclear weapons at some future date on the territory of member countries in the region, and concerns by NATO or NATO-aspirant states that entering into a NWFZ arrangement would conflict with NATO requirements.[95]

Bulgaria is similarly calling for the establishment of a NWFZ in the Balkan region.[96] The idea of a Balkan NWFZ has also been canvassed at various times by the Greek government.[97] While Bulgaria and Greece may keep the concept on the regional agenda, there is still no broader regional consensus and movement on the issue.

While there appears to be little movement on the Central and Eastern Europe NWFZ proposals, Jan Prawitz argues that European concerns over the potential redeployment of nuclear weapons have not disappeared, that the issue will remain on regional agendas, and that many of the key conditions for establishing such a zone are already present: the de facto denuclearization of the region; the various US, United Kingdom, OSCE and United Nations Security Council assurances to Ukraine and Belarus; and the fact that NATO has no current plans to deploy nuclear weapons in this region.[98]

BARRIERS TO THE ESTABLISHMENT OF NEW ZONES

There are multiple barriers that NWFZ and WMDFZ initiatives and proposals face. These may be divided broadly into internal barriers within a specific region, and external barriers posed by neighbouring countries or regions, NWS policies, and the wider international security and arms control environment.

One of the most obvious internal barriers is the existence of conflict, rivalry or overt hostility within the region. It might be argued that NWFZs are only feasible in regions where they are least needed. However, there is one example of a NWFZ that has come to embrace two rival nuclear-capable regional states: the Tlatelolco Treaty, which includes both Brazil and Argentina. Further, as the United Nations Disarmament Commission NWFZ guidelines suggest,[99] establishing a NWFZ may of itself be a CBM that is one element in the complex process of trying to resolve regional conflicts. Certainly, the severity of the conflicts in the Middle East and South Asia is a key factor in the lack of progress in reaching NWFZ or WMDFZ arrangements. In the case of the Middle East, Israel has continued to insist that the political conflicts with its Arab neighbours need to be settled before it can enter into NWFZ or WMDFZ negotiations. Israel may well believe that it has the luxury of being able to tackle these problems in a sequential way, or can deal in a pre-emptive way with any other regional proliferator. But, in the longer term, such proliferation will be inevitable in the absence of regional commitments to the non-proliferation system, and the logic of an early beginning to multilateral regional negotiations on a NWFZ or WMDFZ will become ever more compelling.

In the case of South Asia, the conflict is similarly severe, involving both border conflicts and deep communal/religious divisions, but the fact that the region now contains nuclear weapons held by both India and Pakistan means that both sides will need to come to terms with the catastrophic consequences of either side resorting to nuclear weapons in one of their periodic conflicts over Kashmir, or unleashing a nuclear attack through accident or miscalculation, or allowing WMD to fall into the hands of non-state actors. Even assuming a breakthrough on Kashmir and awareness of the need to address risks of nuclear instability, Indian policy on a NWFZ agreement would also have to take account of China's nuclear posture. The 2003 Iraq War, concerns over North Korean proliferation, and preoccupation with the fight against terrorism have all tended to overshadow and divert international attention away from South Asian nuclear dangers, despite the severity of conflicts in this region and the enormity of the stakes.

A related internal barrier is the lack of regional forums in some regions. This is not true for South Asia, where there is a long-standing regional organization in the form of SAARC, but certainly poses barriers to regional initiatives and arms control in the Middle East and North-East Asia. However, even in those areas where there are no formal regional organizations, there is always the possibility of establishing special forums, ad hoc groups or dialogue processes, as in the case of the ACRS working group, or the Kanazawa Process fostered by the United Nations Regional Centre for Peace and Disarmament in Asia and the Pacific.

It could be argued that another internal regional barrier to NWFZ establishment is the pre-existence of WMD. Certainly, it can be assumed that countries that have already acquired WMD will be reluctant to give them up. Yet, there is a counter example in the form of the Pelindaba Treaty, which required, and involved verification of, South Africa's decision to dismantle its nuclear-weapon capability. Also, some newly independent countries, such as Belarus, Kazakhstan and Kyrghyzstan, previously hosted nuclear weapons as former provinces of a nuclear state, but are now seeking to become part of NWFZ arrangements.

A further internal barrier to adopting NWFZs is instabilities or political problems in the national polities required to ratify the treaties. This is currently a major problem preventing the entry into force of the Pelindaba Treaty.[100]

Important external barriers are posed by the policies of the NWS and the bilateral or other relationships that regional states might have with the NWS. Previous security arrangements between regional states and a NWS, involving potential NWS stationing of nuclear weapons in the region, would obviously be a major obstacle. However, if the existing arrangement does not involve any planned stationing of nuclear weapons, then this might not pose an insuperable problem. Certainly, as discussed above, this is an issue in the Central Asia NWFZ negotiations; yet a comparable situation already exists with the Rarotonga Treaty, where Australia and the United States have a long-standing bilateral security arrangement in the form of the Security Treaty Between Australia, New Zealand and the United States of America.

Under United Nations guidelines, there is an obligation to consult with the NWS on both the treaty provisions and the protocols, but this does not necessarily mean that the region needs to wait for full NWS approval before establishing a treaty. The Southeast Asia NWFZ Treaty has been signed and is now in force for regional states, although negotiations are continuing with the NWS on the treaty protocols, which have yet to be accepted by the NWS.

In the case of Central and Eastern European zone proposals, NATO nuclear policies seem to pose a particular barrier to a permanent denuclearization of these regions, suggesting that unless there is a substantive rethinking of NATO's rule of not providing no-first-use guarantees, and unless NATO is prepared to discard operational contingency plans for forward deployment of nuclear weapons in this region, then such proposals will prove difficult to implement.

FACILITATING CONDITIONS

Despite these formidable barriers and obstacles, there are a number of facilitating factors that could work in favour of the establishment of new NWFZs and WMDFZs.

In relation to the current threats to both regional and global non-proliferation regimes, there may be increasing regional and international support, including NWS support, for regional zones as a way of limiting and containing the negative impact of withdrawals from global instruments,

such as the NPT. NWFZs and WMDFZs have the advantage of being less discriminatory in the obligations imposed on NNWS compared to extra-regional NWS, and can continue to offer regional constraints against proliferation even if there is a collapse of the NPT, particularly if they include rigorous withdrawal conditions.

Secondly, despite the general setbacks to global multilateral arms control agreements, such as the CTBT and the verification protocol to the BTWC, there is some likelihood over the longer term that major players, such as the United States, will return to a more multilateral approach. There is some early suggestion of this in US efforts to reach agreement on United Nations involvement in the rebuilding of Iraq. It is likely that the financial constraints associated with unilateral and "coalition of the willing" approaches coupled with the inherent need for international cooperation in dealing with the problem of terrorism will further encourage the United States to return to multilateral approaches. There is also some evidence from statements of key US officials that the US approach is not so much an abandonment of multilateralism but more a policy of selective multilateralism, with US support for multilateral arrangements depending on the degree of consonance between international security interests and US security interests.[101]

The December 2003 decision of Libya to abandon its WMD ambitions must be considered as, in itself, a very positive step that could encourage other potential proliferators to return to multilateral norms and approaches on non-proliferation and disarmament. The Libyan renunciation of the WMD path is also a vindication of the value of a combined approach of diplomacy and sanctions rather than over-reliance on military methods of dealing with proliferation. As Martin Indyk, former US Ambassador to Israel and one of the chief US negotiators with the Libyans, has noted, the negotiations began in May 1999 and even at the first meeting, the Libyans were offering to give up their WMD: "Libyan disarmament was the product of negotiations and sanctions, not the war in Iraq".[102]

The US and Russian shift away from deploying tactical nuclear weapons on surface vessels and aircraft must also be considered a positive development in relation to NWFZs. The United States and other nuclear powers frequently voiced worries in the past about the effects that NWFZs might have on their transit rights in such zones. This concern should be lessened by the reciprocal US and Russian decisions to withdraw tactical

nuclear weapons from naval vessels and aircraft,[103] and by the willingness of most of the existing zones to accommodate NWS transit concerns. Further, in the case of the United States, its steadily increasing capability for force projection throughout the world has meant a reduced reliance on permanent overseas stationing of nuclear weapons. Compared to the substantial benefits associated with reducing the risk of regional WMD proliferation through NWFZs and WMDFZs, the potential disadvantages for the United States, Russia or other NWS in forgoing future overseas stationing of nuclear weapons or permanent deployment in the relevant zones would seem to be a relatively small sacrifice.

Another facilitating factor at the international level is the increased support, resources and technical expertise available through the United Nations. The United Nations has not only developed detailed guidelines on the principles and role of NWFZs through its original 1975 study,[104] United Nations resolutions defining the concept, and the most recent 1999 NWFZ guidelines,[105] but has also demonstrated its experience in successfully facilitating the negotiation of two regional zones, the African NWFZ and the yet to be concluded Central Asia NWFZ. In both cases, it has provided technical expertise and negotiation assistance in the drafting of each treaty. It has further contributed through detailed studies by both the Secretary-General and UNIDIR on NWFZ proposals for specific regions. The UN Regional Centres for Peace and Disarmament have also played an important role in encouraging dialogue on a range of CBMs, including NWFZs.

The international community has also continued to voice widespread support for NWFZ and WMDFZ initiatives in United Nations and multilateral treaty forums. The 2003 NPT PrepCom meeting noted:

> Efforts aimed at establishing new nuclear-weapon-free zones in different regions of the world were welcomed. Some States parties were encouraged by the fact that Central Asian countries had been engaged in consultations and reached a draft agreement to establish a nuclear-weapon-free zone in the region, which would contribute to regional security and the prevention of nuclear terrorism. Hope was expressed that the consultations between the Central Asian States and the nuclear-weapon States would lead to a successful outcome.[106]

At the 2002 United Nations General Assembly (57th Session) there was continued support for consolidation of existing NWFZs and for the establishment of new zones in the Middle East, Central Asia and Mongolia. In the case of these three new zones, there was consensus support. There was also strong support for a joint resolution sponsored by Brazil and New Zealand calling for the whole Southern Hemisphere to be recognized as a NWFZ, although four out the five NWS opposed this on the grounds that it would be contrary to existing international law, especially the Law of the Sea.[107] Also at the United Nations, the New Agenda Coalition continued to work actively in favour of NWFZs, supporting the Central Asia NWFZ initiative, suggesting that this might give impetus to establishment of NWFZs in the Middle East and South Asia, and encouraging members of the existing zones to work together with the proponents of new zones.[108]

Other international forums in recent years have also expressed strong support for specific NWFZs or WMDFZs. The conference "Building a Weapons of Mass Destruction Free Zone in the Middle East" jointly conducted by UNIDIR and the League of Arab States has already been discussed above. Similar support for a WMDFZ in the Middle East was advanced at the 2002 meetings of the Non-Aligned Movement and the Gulf Cooperation Council, while the IAEA called for further steps towards establishing a NWFZ in the region. In the case of the Central Asia NWFZ, the initiative was endorsed by the June 2002 Shanghai Cooperation Organization meeting of Russia, China, Kazakhstan, Kyrghyzstan, Tajikistan and Uzbekistan. The 2000 Uppsala conference "Nuclear Weapon-Free Zones: Crucial Steps Towards A Nuclear-Free World International Seminar on Nuclear Weapon-Free Zones", organized jointly by the Dag Hammarskjöld Foundation, Peace Depot, Gensuikin, and the International Network of Engineers and Scientists Against Proliferation, and involving some 50 scholars, NGOs, diplomats and experts from six continents, argued that NWFZs were crucial steps towards a nuclear-weapon-free world and pledged in the "Uppsala Declaration on Nuclear-Weapon-Free Zones" to work towards coordinating efforts to support new and existing zones and an international conference of all parties to NWFZs.[109]

While this continuing international support for NWFZs and WMDFZs has so far not translated into rapid or dramatic expansion of the existing zones, there are some additional factors that, taken in combination, might yet produce such an outcome.

One of these key factors is the occurrence of a major precipitating event or crisis involving the threat or actual use of WMD. The current build-up of tension over Taiwanese moves to declare independence and the Chinese government's determination to prevent this by force if necessary is causing some concern over a possible dangerous confrontation between China and the United States in the future. Taken in conjunction with new forms of global media and communications and the associated potential for a resurgence of mass peace or anti-war movements throughout the world, such a "trigger" event could well create the conditions for substantial movement on multilateral arms control, including zonal arrangements.

It should be noted here that the Treaty of Tlatelolco was the direct result of such a precipitating event in the form of the Cuban Missile Crisis, which brought the world to the brink of a catastrophic nuclear war between the two major nuclear powers. In the case of the South Pacific, a similar trigger event was French nuclear testing at Moruroa. In the case of other arms control measures, the stationing of Pershing 2 missiles in Europe during the 1980s acted as a precipitating factor for a resurgent anti-nuclear public opinion in Western Europe, which, in turn, provided international pressure and impetus for the 1987 INF Treaty.

In the present context, the unprecedented size and degree of coordination of anti-war protests and demonstrations even before the 2003 Iraq War began, and despite the fact that the war was anticipated to be brief and conventional in nature, suggest that if there were to be another crisis potentially or actually involving WMD, such as a new war over Kashmir in South Asia, or a conflict between North Korea and the United States, then the resulting upsurge of anti-war pressure might well force governments to respond to their domestic constituencies in much the same way as France and Germany responded at the time of the 2003 Iraq War.

Specific precipitating events of this nature are not easily predicted. However, in a context of increasing proliferation of WMD coupled with missile delivery systems in several countries locked in regional conflict or tension with the NWS, it becomes increasingly likely that such events will occur, probably sooner rather than later. The current nuclear impasse involving North Korea and the dispute between China and Taiwan both have the potential for escalation into conflicts involving major nuclear powers. Hopefully such events would not involve escalation to actual WMD use, but it will be vital for the international community to be prepared to

respond constructively in the form of concrete arms control measures that can be negotiated and concluded rapidly to avoid such future threats.

The final facilitating factor that should be mentioned is the present small openings and beginnings in creating multilateral forums for dialogue and discussion even in some of the seemingly most intractable regional conflicts. In the case of the Middle East, there is the new willingness of the Palestinians and Israelis to engage in talks and agree to a ceasefire following the death of Yassar Arafat, while in the case of North-East Asia, there is the opportunity presented by the Six Party Talks. Coupled with the efforts of the United Nations Regional Centre for Peace and Disarmament, ongoing Track II initiatives, and the role of the ARF in promoting CBMs, North-East Asia may well be the most promising region for near-term adoption of regional denuclearization arms control measures. In South Asia too, the new willingness of India and Pakistan to engage in direct talks on both the Kashmir issue and CBMs aimed at reducing nuclear threats is an extremely encouraging development.

PROMOTING NWFZS AND WMDFZS

A range of strategies may be pursued in international, regional and civil society forums for promoting the further expansion of zonal WMD non-proliferation measures in other regions of the world. Some are already being pursued; some are being pursued partially but could be pursued more fully; others have not yet been tried.

Beginning with strategies at the international community level, particularly in the context of the United Nations, there is already an impressive array of NWFZ and WMDFZ initiatives underway. Many of these have been mentioned above, and include such strategies as: norm-setting resolutions and guidelines on the establishment of zones;[110] direct assistance to regional groupings in establishing and verifying NWFZs (e.g., in Africa and Central Asia); General Assembly and IAEA support in annual resolutions for recognition, compliance and implementation of existing and proposed zones; undertaking of studies on zones both generally and for specific regions (e.g., the Middle East); and ongoing contributions by United Nations agencies to public debate and education on zonal approaches. These strategies have already achieved substantive results: it is unlikely that either the African or Central Asian zones would have reached their current

stage without the support, encouragement and experience of the relevant United Nations bodies.

The United Nations should further develop these strategies that it has already been pursuing with a degree of success. There are a number of possibilities here that could take advantage of some of the more favourable factors discussed above.

In the context of the 2005 NPT Review Conference, and the somewhat less certain possibility of the convening of a much-postponed Fourth Special Session on Disarmament, the United Nations and/or sympathetic states (such as the New Agenda Coalition) could seek support for a new United Nations study on NWFZs and WMDFZs in all their aspects. The original 1975 United Nations study was conducted during the Cold War with all the constraints that imposed.[111] A new study conducted at a time of increased concern over regional WMD proliferation might prompt both the NWS and the NNWS to: reassess the advantages and disadvantages of the zonal approach; examine the evolution of the whole NWFZ concept and the merits of extending it to cover all WMD; take account of new thinking on modes of negotiating, implementing and verifying such zones and on the nature of associated security guarantees; examine the new possibilities opened up by recent multilateral and bilateral talks and negotiations in several of the most critical regions; and review the continued applicability of nuclear doctrines dating from the Cold War, not least doctrines involving the first use of nuclear weapons and the use of such weapons against NNWS.

In terms of more specific regional initiatives, there have so far been no in-depth studies of initiatives in South Asia and North-East Asia similar to the ones carried out at the United Nations on the Middle East despite the high risk of use or threat of use of nuclear weapons or other WMD in these two regions. This is understandable in some consensus-based forums, where a regional state might veto conducting such a study. But, in the absence of regional consensus, it may still be feasible to commission such studies through the General Assembly.

A related United Nations initiative could be to commission studies of the likely impact of both limited and escalated use of nuclear weapons and WMD both within a specific region, and for the whole world community. Such studies might be helpful in countries where governments may not

have fully communicated the likely effects of nuclear and other WMD use to their own peoples. They might also serve to concentrate the attention of the wider international community, including the NWS, on the urgency of new regional measures, not only from the viewpoint of regional security but also their own national interests. Such studies might go hand in hand with a more coordinated education campaign on the risks and implications of using nuclear weapons and other WMD.

At the level of promoting dialogue and discussion between regional actors that have not yet reached even agreement in principle on the establishment of a NWFZ, the United Nations could continue to explore avenues for formal and informal discussions, particularly in the Middle East, South Asia and North-East Asia, including the convening of regional discussions of experts, officials and NGOs, and assistance through the office of United Nations Secretary-General in working through the modalities of new arms control arrangements that address the security concerns of all parties.

At the United Nations Security Council, there was much criticism by the United States that the Council was not prepared to properly enforce non-proliferation measures in the case of Iraq despite having endorsed the principle that proliferation is a threat to the whole international community. The proliferation threat would seem to be equally severe in South Asia but there have been few sustained efforts by the international community to bring the parties together. If the present direct talks between India and Pakistan fail to slow their nuclear rivalry, then sustained international pressure through the Security Council will be needed to induce them to forgo the nuclear option. This would almost certainly need an approach similar to the combination of diplomacy and sanctions that worked so well with Libya.

Still looking at possible initiatives within the international community but going beyond the United Nations, there is scope for more vigorous work on NWFZ or WMDFZ establishment by groups of like-minded states. The potential of this approach was amply demonstrated in the successful negotiation of the Ottawa Mine Ban Treaty. After confronting an initial impasse at a meeting of the United Nations Convention on Conventional Weapons in 1996, a group of like-minded countries led by Canada held a series of conferences and working group meetings that led to agreement on a convention in less than 18 months. In terms of promoting NWFZs and

WMDFZs, there are already two relevant groupings of like-minded nations: the New Agenda Coalition and the group of over 100 nations that have already signed the four existing NWFZs. Although this latter group does not as yet have a common forum or secretariat, Brazil has regularly sponsored a resolution at the United Nations General Assembly on a nuclear-weapon-free Southern Hemisphere calling for such cooperation.[112] Similarly, the New Agenda Coalition has called for cooperation between existing zone members in promoting new zones. Further, there is the work of the League of Arab States in promoting and developing the concept of a Middle East WMDFZ. It would seem timely and feasible for these groupings to jointly host an international conference of like-minded governments on NWFZ or WMDFZ establishment. The total constituency of interested governments would presumably be a minimum of 124 states, taking into account the membership of all three groups. Following the 2005 NPT Review Conference, this would provide a major new impetus for expansion of such zones. It would also have a wider communication benefit of signalling to the international community that there are other, more cooperative, ways of tackling WMD than military intervention. There was, in fact, a move in the direction of convening such a conference by Mexico at the United Nations First Committee in late 2003, but the Mexicans withdrew their resolution at the last minute due to unresolved difficulties in financing the conference.[113] Hopefully, these difficulties can be resolved so that such a conference can be convened soon.

A related way forward is at the regional organization level. As at the global level, the existence of holdout states within a region should not delay efforts by other regional states to pursue discussions and dialogue on NWZF and WMDFZ concepts in regional, international and other forums. The previously mentioned 2003 UNIDIR–League of Arab States conference was an example of this. If international support is enlisted, it might just be feasible to counter internal regional pressures by the holdout state or states with the help of positive inducements or carefully targeted sanctions by the international community.[114]

A third way forward is for a greater engagement by civil society in supporting and advocating the establishment of NWFZs. As the 2000 "Uppsala Declaration on Nuclear-Weapon-Free Zones" affirmed, "Peoples and governments everywhere, as well as the United Nations, have a contribution to make to the creation and expansion of nuclear weapon-free zones."[115]

As Mary Kaldor notes, global civil society holds the key to avoiding future wars, particularly if peace and justice-oriented NGOs can forge "alliances with like-minded groups to strengthen their position in the bargaining process with political institutions, companies and other civil society groups of a different persuasion".[116]

In response to precipitating events, such as wars and crises, or even just to the threat of war, there may be large-scale upsurges in civil society protests and movements, as indeed there was at the time of the Cuban Missile Crisis, and, most recently, just before the 2003 Iraq War. In the case of the Cuban Missile Crisis, the widespread anti-nuclear movement at the time was a factor in the negotiation of both the 1963 Partial Test Ban Treaty (PTBT) and the 1967 Tlatelolco Treaty. In the case of the recent upsurge, the protests did not prevent the war occurring but they have certainly contributed to a major international reappraisal of whether the war was justified or counter-productive.

While mass movements may be a critical factor in governments taking notice of and responding to civil society pressures, NGOs and academic institutes have a critical role in terms of translating civil society concerns into concrete policy options that might be taken up governments. In the context of NWFZ or WMDFZ establishment, there have been several important international conferences and NGO/research institute projects launched over the past five years, not least being the 2000 Uppsala conference on "Nuclear Weapon-Free Zones", but there is an urgent need for more such conferences involving NGOs or networking between NGOs and diplomats. One way forward would be greater coordination between potential hosting organizations, which might include regional and international conferences on NWFZ and WMDFZ concepts and initiatives, following the 2005 NPT Review Conference. Such organizations would include both United Nations bodies, such as the Regional Centres for Peace and Disarmament, UNIDIR and the United Nations University, and other peace and security research institutes or structures, such as the International Peace Academy, the Dag Hammarskjöld Foundation, the Council for Security Cooperation in the Asia Pacific, the International Peace Research Institute, Oslo, the Stockholm International Peace Research Institute, the Monterey Institute of International Studies, the Carnegie Endowment for International Peace, the Acronym Institute and the Peace Depot. Important topics for addressing in such conferences would be civil society strategies for pursuing NWFZs and

WMDFZs, concepts and models of zone arrangement, networking aspects, and public education and awareness aspects.

CONCLUSION

Regional zoning approaches to control nuclear weapons and other WMD have made substantive progress since the initial Treaty of Tlatelolco to the point where over half of the Earth's surface is now covered by such zones. While zones have not yet been established in some of the most conflict-prone regions, such as the Middle East, South Asia and North-East Asia, the four existing zones have showed the potential for cooperative approaches to improving regional security, both in the sense of averting nuclear rivalries within a particular region and in the sense of gaining binding negative security guarantees from the NWS.

Further, while needing to take account of new developments in proliferation, particularly the tendency for simultaneous proliferation across a range of WMD and their means of delivery, the zonal approach offers an alternative and less counter-productive response to the global and regional proliferation threats than coercive forms of counter-proliferation—although there may be circumstances where military intervention under the mandate of the United Nations Security Council to prevent or reverse WMD proliferation may well be warranted.

While there are many barriers to the further spread of NWFZs and WMDFZs, not least being the seeming intractability of conflicts in the Middle East and South Asia, there are also some facilitating conditions or factors that could assist in the further expansion of such zones.

One is the fact that the international community is continuing, through a range of forums, to support and press for further NWFZ or WMDFZ establishment, for instance at the 2003 NPT PrepCom meeting, at the 2002 and 2003 General Assemblies (57th and 58th Sessions), in the New Agenda Coalition resolutions at the United Nations, and at the 2003 UNIDIR–League of Arab States conference. Another is the fact that some of the Cold War constraints on NWFZ establishment, such as the deployment and transit of tactical nuclear weapons on ships and planes, have become less salient due to US and Russian withdrawal of such weapons from active duty. There is also the fact that regional agreements, unlike global

agreements, are less subject to veto pressures from the NWS, and that opportunities for dialogue and discussion on arms control issues are improving, if only incrementally, in some of the most conflict-prone regions.

Finally, there is the role of civil society. Just as the Cuban Missile Crisis generated concern and galvanized a worldwide disarmament movement, it is possible, if not likely, that a new precipitating event will similarly generate civil society protest movements focusing on regional and global arms control, either within specific regions or globally. The speed with which such movements can arise in an era of rapid communications and Internet networking between peace organizations was evident in the scale of international protests and demonstrations against the 2003 Iraq War.

While such civil society movements play a crucial role in applying pressure on national governments, and in regional and global forums, the translation of such pressure into operational arms control policy options will depend greatly on approaches worked out in continuing discussion, dialogue and collaboration between peace and human security NGOs, peace and disarmament research centres, national governments, and regional and global organizations.

A number of possible ways forward for enhancing this dialogue and discussion, and searching for new ways of implementing cooperative forms of regional arms control, include: the need for a new United Nations study on NWFZs and WMDFZs to take account of post-Cold War and new proliferation developments; further studies on the establishment of specific NWFZs or WMDFZs; studies of the likely human, environmental and economic impacts of the use of nuclear weapons or other WMD in regional conflicts; diplomatic efforts, whether through the United Nations or by particular states, especially the United States, to promote regional talks and arms control negotiation forums in regions like South Asia where the parties are not even at the first step of holding arms control discussions; further international and regional conferences on NWFZs and WMDFZs involving relevant NGOs, research centres and diplomats; and efforts by like-minded states, like the New Agenda Coalition and the members of existing NWFZs, to convene an international conference on NWFZs and WMDFZs.

In terms of the policies of the major nuclear powers, there may be some scope for renewed leverage by the NNWS and international disarmament movements on the NWS to support NWFZ and WMDFZ

initiatives given the fact that the NWS have all been prepared in the past to support the concept of NWFZs, even if they have been slow, selective and sometimes self-defeating in their approach to specific zones. Such leverage could be exerted through diplomatic campaigns in the United Nations and other international forums, and through regional organizations. Concerted pressure to highlight the non-proliferation benefits of such zones compared to the disadvantages of military and pre-emptive approaches might well prove persuasive in a context where the domestic constituencies of the NWS are becoming increasingly aware of the human and financial costs of military intervention (as in the 2003 Iraq War), not to mention the possibility of counter-productive outcomes in provoking alienated state and non-state actors to actively develop or acquire their own WMD.

Notes

1 Ian Anthony, "Arms Control After The Attacks of 11 September", *SIPRI Yearbook 2002*, SIPRI, Oxford: Oxford University Press, 2002, pp. 482–3. Peter Batchelor, "The 2001 UN Conference on Small Arms: A First Step?", *Disarmament Diplomacy*, no. 60, September 2001, pp. 4–8. In the case of small arms measures, the United States, China and some other delegations opposed international legal instruments on the marking, tracing and brokering of small arms.

2 Sammy Salama and Karen Ruster, "A Preemptive Attack on Iran's Nuclear Facilities: Possible Consequences", Center for Nonproliferation Studies, Monterey Institute for International Studies, 12 August 2004, <cns.miis.edu/pubs/week/040812.htm>.

3 See *Disarmament Diplomacy*, no. 65, July-August 2002, pp. 37–45 for details of the treaty and analysis of its flaws. Jon Wolfsthal of the Carnegie Endowment for International Peace, noted, for example, that "The treaty is toothless and almost pointless. It does not define what it is trying to control. It does not have verification terms. It is almost impossible to violate. … It is not an arms control treaty. It is essentially a signed political statement, confirming statements the Presidents agreed to previously." Ibid., p. 43.

4 *Disarmament Times*, vol. XXV, no. 4, 2002, pp. 4–5.

5 Ibid.

6 Oluyemi Adeniji, *The Treaty of Pelindaba on the African Nuclear-Weapon-Free Zone*, UNIDIR, Geneva: United Nations, 2003, p. 39.

7 Rebecca Johnson, "Iran, Libya, and Pakistan's Nuclear Supermarket", *Disarmament Diplomacy*, no. 75, January-February 2004.

8 For a recent overview of current proliferation of the main categories of WMD, see Joseph Cirincione, *Deadly Arsenals: Tracking Weapons of Mass Destruction*, Washington DC: Carnegie Endowment for International Peace, 2002. In a revealing table, Cirincione identifies 15 states with nuclear, biological or chemical weapons, and/or research programmes relating to such weapons: China, Egypt, France, India, Iran, Iraq, Israel, Libya, North Korea, Pakistan, Russia, Sudan, Syria, the United Kingdom and the United States (p. 17). In terms of missile delivery systems, Cirincione identifies 24 countries possessing only short-range ballistic missiles (less than 1,000 km) and a further seven countries possessing medium-range missiles (1,000–3,000 km), excluding the NWS (p. 14). It is noteworthy that with the exception of Sudan, every one of the 15 countries pursuing a WMD programme also has a short or longer-range missile capability.

9 *Strengthening the Role of Regional Organizations in Treaty Implementation*, UNIDIR Conference Report, Geneva, 10–11 June 2002, p. 3, <www.unidir.org/pdf/activites/pdf2-act13.pdf>.

10 For recent overviews and specific studies of existing NWFZs see: Jozef Goldblat, *Arms Control: The New Guide to Negotiations and Agreements*, London: SAGE/SIPRI/PRIO, 2002, pp. 196–219; Ramesh Thakur (ed.), *Nuclear Weapon-Free Zones*, London: Macmillan and St Martin's Press, 1998; Pericles Gasparini Alves and Daiana Cipollone (eds), *Nuclear-Weapon-Free Zones in the 21st Century*, UNIDIR, Geneva: United Nations, 1997; Adeniji, op. cit.; Bilveer Singh, *ASEAN, the Southeast Asia Nuclear-Weapon-Free Zone and the Challenge of Denuclearization in Southeast Asia: Problems and Prospects*, Strategic and Defence Studies Centre, Research School of Pacific and Asian Studies, Australian National University, Canberra: Australian National University Press, 2000.

11 Burkhard Conrad, *Regional (Non-) Proliferation: the Case of Central Asia*, Conflict Studies Research Centre, Defence Academy, Ministry of Defence, United Kingdom, April 2000, <www.da.mod.uk/CSRC/documents/CentralAsia/K29/file-view>; Goldblat, 2002, op. cit., pp. 212–4; Alibek Dzhekshenkulov, "A Nuclear-Free Zone in Central Asia", *International Affairs* (Moscow), vol. 45, no. 4, 1999, pp. 53–7; Oumirserik Kasenov, "On the Creation of Nuclear-Weapon-Free Zone in Central Asia", *The Nonproliferation Review*, vol. 6, no. 1, 1998, pp. 144–6; Scott Parrish, "Prospects for a Central Asian Nuclear-

Weapon-Free Zone", *The Nonproliferation Review*, vol. 8, no. 1, 2001, pp. 141–8. Murat Laumulin, "Nonproliferation and Kazakstani Security Policy", *The Nonproliferation Review*, vol. 5, no. 3, 1998, pp. 127–9; *UN Disarmament Yearbook*, vol. 27, 2002, p. 147.

12 Goldblat, 2002, op. cit., pp. 214–9.

13 "Establishment of nuclear-weapon-free zones on the basis of arrangements freely arrived at among the States of the region concerned", Annex 1, *Report of the Disarmament Commission*, United Nations General Assembly, 54th Session, UN A/54/42, 6 May 1999, paragraph 33.

14 Ibid., section B.

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23 Amitav Acharya and J. D. Kenneth Boutin, "The Southeast Asia Nuclear Weapon-Free Zone Treaty", *Security Dialogue*, vol. 29, no. 2, June 1998, p. 222.

24 *Disarmament Yearbook*, 2002, op. cit., p. 147.

25 Marty Natalegawa, "De-nuking Southeast Asia", *Pacific Research*, vol. 6, no. 1, February 1993, p. 9; also cited in Singh, op. cit., p. 37.

26 Acharya and Boutin, op. cit., p. 224.

27 Ibid.

28 Adeniji, op. cit., pp. 35–45.

29 Sola Ogunbanwo, "Accelerate the Ratification of the Pelindaba Treaty", *The Nonproliferation Review*, vol. 10, no. 1, Spring 2003, pp. 133–4.

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31 Interview with Ike Reed, First Secretary, and Dr John King, Special Advisor, of the US Mission to the Conference on Disarmament in Geneva, 24 September 2003.

32 The United Nations' contribution to the negotiations is discussed in detail in Adeniji, op. cit.

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ACRONYMS

ACRS	Arms Control and Regional Security (Middle East)
ARF	ASEAN Regional Forum
ASEAN	Association of Southeast Asian Nations
BTWC	Biological and Toxin Weapons Convention
CBM	confidence-building measure
CBW	chemical and biological weapons
CD	Conference on Disarmament
CTBT	Comprehensive Nuclear-Test-Ban Treaty
CWC	Chemical Weapons Convention
EEZ	exclusive economic zone
IAEA	International Atomic Energy Agency
INF	Intermediate-Range Nuclear Forces Treaty
NATO	North Atlantic Treaty Organization
NGO	non-governmental organization
NNWS	non-nuclear-weapon state
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NWFZ	nuclear-weapon-free zone
NWS	nuclear-weapon state
OSCE	Organization for Security and Co-operation in Europe
PrepCom	Preparatory Committee (NPT)
SAARC	South Asian Association for Regional Cooperation
SPNFZ	South Pacific Nuclear Free Zone Treaty
START	Strategic Arms Reduction Treaty
UNIDIR	United Nations Institute for Disarmament Research
WMD	weapons of mass destruction
WMDFZ	weapons of mass destruction free zone