

A row of concrete stepping stones is laid out in a shallow stream, leading from the foreground towards the background. The water is clear, and the surrounding area is lush with green grass and vegetation. The stones are arranged in a slightly curved line, creating a path across the water.

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BASIC

Stepping Stones to Disarmament

Making progress in a polarised international climate

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BASIC

The British American Security Information Council (BASIC) is an independent think tank and registered charity based in Whitehall, London, promoting innovative ideas and international dialogue on nuclear disarmament, arms control, and nonproliferation. Since 1987, we've been at the forefront of global efforts to build trust and cooperation on some of the world's most progressive global peace and security initiatives, advising governments in the United States, United Kingdom, Europe, the Middle East and Russia. Through an approach based on active listening, understanding and empathy, the charity builds bridges across divides and lay new pathways to inclusive security.

BASIC has developed institutional expertise across a number of transatlantic issue areas, including the UK-US nuclear relationship, the UK's Trident programme, the politics of disarmament and arms control in the UK Parliament, NATO nuclear weapons in Europe, the Middle East, the evolving role of responsibility in nuclear governance, and expanding technological threats to SSBN platforms.

Contents

1 The Stepping Stones Approach	01
2 Context Demands Innovation	03
3 Prospective Stepping Stones	07
4 Conclusion	16
Endnotes	17



1 The Stepping Stones Approach

The international debate over nuclear weapons is dominated by well-established and often trenchant positions that appear irreconcilable. At the same time, the key decisions over nuclear postures are determined largely by national security assessments within possessor states, with minimal influence from the wider international community of states.

The degree to which the possession of nuclear weapons confers power within that international community remains controversial. Nevertheless, the belief in the continued value of nuclear weapons in delivering deterrence and strategic stability remains strong within those states that still possess overwhelming influence across all measures within the international community. Whilst limited pressure can be applied from outside, genuine progress on nuclear disarmament will require the involvement of some or all of those possessor states in a cooperative process involving vision, commitment, and patient and inclusive negotiation. And key decision-makers within those states are the political and military leaderships, constituencies only indirectly aware of international negotiations and driven by a variety of competing objectives.

The Stepping Stones Approach seeks to engage all members of the international community in a cooperative and inclusive process that nudges the nuclear possessor states away from arms racing dynamics and in a more positive direction, with the intention of reducing the salience of nuclear weapons in postures, achieving incremental disarmament and progressively building up the capacity for further steps. The emphasis is on the direction of travel and the achievement of concrete steps towards disarmament.

It would be a mistake to see this as a middle-of-the-road **position**. Rather, it is seeking a broad and inclusive approach, focusing on a pragmatic negotiated implementation **process** that can involve a wide variety of

perspectives, from those committed to achieving radical and fast-tracked disarmament to those reluctantly attached to nuclear deterrence as a practice necessary to achieve strategic stability. By seeking early incremental stepping stones in the direction of achieving progress on the established disarmament agenda, it attempts to break the current deadlock frequently characterised by positional statements in support of proposals, but blocked by some possessor states who see the initiative as requiring too big a leap of faith that weakens their strategic position.

Such stepping stones would possess the following characteristics:

- **Dynamic flow.** Each would be seen by some or all of the international community as contributing to an incremental move in support of nuclear disarmament by building trust and confidence, or capacity, or by reducing nuclear salience or risk. It is this dynamic approach that distinguishes the Stepping Stone Approach from other more established practices. These tend to require substantial mutual steps that block nuclear weapons development or deployment and drive disarmament. They rely upon all states involved to see their own benefit in that particular mutual restraint, and are therefore often high bars for movement.
- **No strategic security sacrifice.** All states involved would be able to deliver the stepping stone without requiring them to accept any significant shift in their strategic situation in relation to another state with whom they are in strategic competition. Indeed, it may not be necessary for the state or states involved in taking the step themselves to consider it a significant step themselves, but it could show good will to other members of the international community.
- **No conditions necessary.** Similar to the previous criterion, each step would be possible without requiring a prior improvement in the international security context.
- **Value.** The value of each step therefore is in its signaling credible intent towards agreeing further (undefined or adaptive) stepping stones on the journey as much as its direct contribution to lowering nuclear salience, risk or tensions. Stepping stones are themselves important contributions to creating the environment for nuclear disarmament and ought to feature in the 'Creating the Environment for Nuclear Disarmament' process advocated by the US State Department.
- **Flexible.** Steps could be unilateral, bilateral or multilateral, involve formal or informal agreement, or indeed no agreement at all.

Consider by way of illustration negative security assurances (NSAs). These involve the Nuclear Weapon States (NWS) offering guarantees to Non-Nuclear Weapon States (NNWS) that they will not suffer nuclear attack or threat of nuclear attack. The NWS currently see this objective as a distant goal as they see continued utility to retaining exceptions and resist repeated requests to plug the gaps in their legal guarantees to NNWS within Nuclear Weapon Free Zones (NWFZs). As a result, efforts to begin talks on the issue, most recently led by Germany in the Conference on Disarmament in 2018, have failed to achieve progress, even though some believe it to be relatively low hanging fruit on the disarmament tree. Progress on this agenda would best be approached by pragmatic and cooperative efforts to persuade NWS to reconsider tightening up on the exceptions they make to the NSAs they currently offer and thereby showing a willingness to limit the utility they perceive nuclear weapons may offer in extreme and highly unlikely scenarios, and to inject some political priority into ratifying outstanding NSA protocols to the NWFZs, understanding that these are seen as meaningful to member states in the region.

The Swedish Government launched a new initiative at the 2019 NPT Preparative Committee in April 2019 that seeks to unlock disarmament diplomacy using the Stepping Stones Approach. This briefing outlines some of the thinking that supports this approach. It does not directly reflect the views of the Swedish government, though is strongly influenced by them.



President Clinton signs the Comprehensive Nuclear Test Ban Treaty (CTBT) at the United Nations in New York.

2 Context Demands Innovation

2.1 Diplomatic Context

The broad recognition in the 1960s that disarmament requires nuclear weapon possessor states to recognise their own national interest in any international agreement led to a pragmatic approach to disarmament and non-proliferation. The 1968 Non Proliferation Treaty (NPT) reflected this approach by identifying five NWS and giving them special responsibilities including the obligation to engage in good faith negotiations to achieve early progress on nuclear disarmament. The NPT today retains explicit support from all states except a small handful of non-signatories.

A number of initiatives or steps emerged within this framework that were seen as essential components of a regime that would establish confidence, reduce nuclear risks, and constitute steps on the road to global nuclear disarmament. These included bans on the explosive testing of nuclear weapons, a halt to the production of fissile materials, universal NSAs, a halt to the arms race and deep cuts in nuclear arsenals, as well as a range of other proposals. Principled support amongst states for these steps strengthened with the end of the Cold War and significant progress was made in attempting to universalise the NPT, reduce arsenals and decrease the saliency of nuclear weapons, through strengthening and codifying NSAs in 1995 and agreeing a Comprehensive Test Ban Treaty (CTBT) in 1996. Perhaps the biggest achievement was the withdrawal and destruction of tactical nuclear weapons from Europe under the unilateral but coordinated

Presidential Nuclear Initiatives. The Soviets centralised warheads and bombs from 14 Soviet republics onto Russian territory and the United States withdrew from Europe around 7000 tactical systems.

Nevertheless, since the CTBT was opened for signature a general malaise has settled upon the international community. Whilst reductions in nuclear arsenals continued into the new century, progress on arms control stuttered to a halt and now shows signs of significant reversal in fortunes as states invest in the next generation of nuclear weapon systems, including new types of warheads and delivery system. Awareness in Western capitals of the deterioration in strategic relations with Russia became clear in 2008, but Russians date it back to the US withdrawal from the Anti-Ballistic Missile Treaty in 2002. This has led to the re-emergence of a dangerously threatening nuclear rhetoric from leaderships and ambiguous declaratory policy within published nuclear postures. Multilateral deadlock at the UN Conference on Disarmament has been apparent for over 20 years. The failure to negotiate START-2 was an early warning of what was to come in strategic arms control.

The 2000 and 2010 consensus NPT Final Documents strengthened formal commitments to disarmament. They codified an agenda for action, outlining the necessary measures to achieve progress on nuclear disarmament. It was an implicit recognition that it was not realistic to expect NWS to simply walk away from their nuclear postures in one single step without some intermediary waystations, and that this would also demand some level of coordination and mutual reassurance. Identifying these desirable steps, however, was only a first move and the agenda for action soon floundered.

Individual nuclear-armed states perceive the requirements of each step as too great a sacrifice to their nuclear doctrine with the result that their national security is harmed. Often the fear is that even opening negotiations on the initiative might result in an uncontrollable momentum and diplomatic pressure that forces them to give up their systems.

As a result of the stasis in the agenda, and steps back in the direction of an arms race, the established step-by-step agenda has fallen into disrepute in many circles. Many people view the situation as evidence of failure within the NWS political leaderships, a clear lack of political will and zero intention to implement legal obligations under the NPT itself and articulated in those NPT Final Documents. Communicating this frustration with the lack of progress, 122 states at the UN General Assembly voted in July 2017 to adopt the Treaty on the Prohibition of Nuclear Weapons. The view within NWS capitals is that the deterioration in the security scenario is deeply unfortunate but is systemic and out of their control, and that a step-by-step approach remains the only credible approach towards global nuclear disarmament. Mirroring the debate between Israel and the Arab League over a WMD Free Zone in the Middle East, the latest initiative from the US State Department appears to suggest that the best approach to achieving progress is to focus on the demand-side, and to creating a security environment conducive to disarmament first.

Whilst the non-proliferation regime has until now been remarkable in limiting the spread of nuclear weapons to only three countries in the last 50 years, and there are no countries currently thought to be on the brink of crossing the threshold, there is no room for complacency.¹ We are witnessing far more complex global and regional multipolar strategic relationships that threaten more crisis instability. There could soon emerge new threats to non-proliferation, triggered by emerging technologies that facilitate more accessible acquisition of nuclear weapons (such as laser or chemical enrichment and digital duplication). In the broader political and diplomatic context, there also appears to be a global shift in political attitudes away from multilateralism towards unilateralism, and towards brinkmanship. This combines with a continued sense of tribalism, weakening solidarity and a greater tendency to public righteousness that is inflexible to evidence.

Improvements designed to strengthen arms control and multilateralism, therefore, require a much broader involvement than a small number of elite groups of diplomats in a handful of powerful states, and public

global communication that has some consistency with broader political understandings. This requires greater attention to concepts of international justice, multipolarity and strategic empathy, and forswearing approaches based upon dominance and control as these have frequently been at the root of international conflict and the drivers of the nuclear challenges we find ourselves confronted with.

2.2 Deterrence as a Prime Resistance to Disarmament

The case for multilateral nuclear disarmament is very strong and widely accepted, but scepticism towards it remains entrenched. Appeals to 'do the right thing' fail to translate into persuasive proposals. The principal differences of view lie largely in the urgency, method, sequencing and relationship with other strategic issues. The resistance to disarmament lies at root in the utility attached to the possession of nuclear weapons, such that it is difficult to see significant improvement while possessor states rely for their national security upon strategic stability achieved through the threat of mutual annihilation, and often remain attached to the view that these weapons confer status.

Nuclear deterrence may not be as stable a strategy as is often assumed by many of its advocates. Whilst the scale of any potential nuclear attack must surely deliver some degree of caution on the part of any aggressor that could risk a nuclear response, this is mitigated by doubt in the resolve to launch such an attack. Nuclear weapons have not been used for over seven decades, and a de facto nuclear taboo has established itself, undermining the credibility of nuclear deterrence. This is further undermined if there are other reasons to doubt resolve or the capability to deliver a nuclear response. Hence, states that rely upon nuclear deterrence tend to resist moves that might further deepen doubts over their resolve to use nuclear weapons if the time were to come, yet such moves are seen as necessary steps towards disarmament.

Whilst there have always been efforts to escape the vulnerabilities to nuclear missile attack, by developing overwhelming counter-force arsenals, anti-ballistic missile defences, strong air defences and anti-submarine warfare systems, the offensive nuclear capabilities possessed by the United States and Russia have never really been called into question. What stability that existed between the United States and Soviet Union in the Cold War was assured by the acceptance of mutual vulnerability and that a disarming first-strike would be counter-productive. This confidence arose from large arsenals with overwhelming redundancies and secure second-strike capabilities, and nuclear postures that involved practices such as launch on warning that are frequently associated by others with increased nuclear risks. This confidence has remained at lower levels principally because of reduced tensions, but may become unstable at lower levels. As such there is often (though not always) a direct tension between credible nuclear deterrence posture and proposals aimed at reducing risk or nuclear salience, particularly those that involve assurances to adversaries. This could be exacerbated by emerging technologies that call into question the capability to deliver a nuclear attack.

On the other hand, one of the common blockages to progress in disarmament is the received group-think within defence establishments that underpins posture, with a resistance to proposals from outside that might modify posture with uncertain consequences. Military planners are resistant to proposals that would limit freedom of action, especially in unknown future scenarios. This creates an internal tension within NWS. While the NPT accepts the principle of irreversibility to steps, for example, NWS military planners do not.

2.3 Policy and Deterrence Communities

The polarisation between three communities has a particular impact on blocking progress. These are:

- ° those discussing disarmament (diplomats and focused civil society);
- ° those considering effective nuclear deterrence (including military planners); and
- ° domestic political elites that see nuclear weapons within a much broader political context.

Initiatives that embrace only the first will have limited impact, and frequently deepen divisions. The reasons for this lie in the constraints upon the diplomatic community from states that include a dependence upon nuclear deterrence within their defence postures. The more influential decision-makers in these states sit within the second and third communities, that are far less exposed to NNWS perspectives, and tend to see them as almost irrelevant in their own policy ecosystems. These decision-makers often fail to understand the role of declaratory policy, arms control and disarmament as tools of effective deterrence, and the benefits to be had for security in drawing down arsenals and reducing salience. On the other hand, broader more holistic disarmament initiatives that involve attempts to achieve deep change in the assumptions, cultures and behaviours that underpin nuclear deterrence, are inevitably ambitious, take time, resources and a great deal of patience, not to mention overwhelming political will.

The Stepping Stones Approach is pragmatic, seeking viable improvements, but also involves active engagement with and endorsement from the military planners and political leaderships. It recognises that even such objectives require this broader engagement if they are to be successful.

3 Prospective Stepping Stones

In championing a Stepping Stones Approach to implementing disarmament, the Swedish Government has chosen to group their initial illustrative possible stepping stones into categories of proposals that address four principles which would pave the way for progress. Measures should:

- reduce the salience of nuclear weapons;
- rebuild habits of cooperation in the international community;
- reduce nuclear risks; or
- take steps to enhance transparency on arsenal size, control fissile materials and nuclear technology.

Many of the proposals may well prove to be dead-ends, whilst others not listed could become viable stepping stones on the pathway to progress. The following sections explain some of these stepping stones. References to the Steps are those agreed in NPT Final Documents, whilst the Stepping Stones are potential progressive moves in the direction of those steps.

3.1 Reduce the Salience of Nuclear Weapons

Moves to reduce the salience and utility attached to nuclear weapons within military doctrines are an essential factor in any effective moves to achieve disarmament. Action 5c (2010) committed states, “to further diminish the role and significance of nuclear weapons in all military and security concepts, doctrines and policies.” Unfortunately, recently it appears that the salience of nuclear weapons has been rising in the United States and Russia, with the re-emergence of talk of winning in a nuclear conflict if deterrence were to fail.²

The tension between deterrence and disarmament is acute when considering declaratory policy. Transparency and clarity are important principles for positive international relations, and failing to communicate the circumstances in which a state would contemplate nuclear attack is seen as deeply disrespectful of other states and their security, particularly if those states have foresworn nuclear weapons themselves. It can also add to uncertainty and misperception in crisis. Specifying the circumstances of use and non-use could enhance deterrence in those areas identified as applicable to nuclear deterrence by virtue of emphasising their grave nature. On the other hand, attempts by NWS to offer clarity on the circumstances they may use nuclear weapons have caused diplomatic backlash, especially when these circumstances are seen as illegitimate or back-tracking on previous progress.

Military planners appear to value nuclear ambiguity and the freedom of action in circumstances of future uncertainty. They fear giving clarity to an enemy planning aggression by giving them red lines under which they might feel able to operate with impunity. Defence planners question the credibility of nuclear guarantees, doubting that in moments of crisis they and other actors would feel constrained by a declaratory policy formulated in very different circumstances. This scepticism translates into an attachment to ambiguity and an unwillingness to consider steps that reduce freedom of future action with nuclear weapons. However, the costs to diplomacy, especially in the context of the NPT, and to more stable planning and to international security is often undervalued. Such ambiguity could have a weaker grip if defence planners were to take a more active part in international negotiations and to make greater efforts to explain their position. They may develop other means for finding credible mutual assurance.

NSAs

Step: action 7 (2010) – global legally-binding unconditional NSAs for all NNWS

Stepping stones: unilateral or multilateral modifications of the current exceptions to NSAs

Negative Security Assurances are promises from all five NWS that they will never attack or threaten to attack NNWS with nuclear weapons. Each NWS has issued NSAs since 1995, but each attaches their own exceptions to these, such as limiting NSAs to states they judge to be in compliance with the NPT, to those that are not in a formal alliance with a NWS, or announcing that all promises could be off if they suffer a strategic attack using chemical or biological weapons. While these exceptions may make sense for defence planners, they significantly weaken the assurance offered, consequently harm the diplomatic benefit, and undermine the agreed aim of reducing the saliency of nuclear weapons and the idea that nuclear use against a NNWS should be illegitimate.³ They reveal deeply unhelpful exceptionalist attitudes attached to the possession of nuclear weapons that also hint at the potential use of implied nuclear threat to compel adherence to the NPT.

Unconditional and legally-binding NSAs have been an important and early demand of much of the international community for several decades within the NPT process, but this has not translated into action by the NWS to meet expectations. This sends an unintended signal that NWS undervalue the concerns of the NNWS. Concrete progress was achieved in 1995 when four of the five recognised NWS (and permanent members of the UN Security Council) issued conditional NSAs (China had already issued an unconditional NSA), which was subsequently recognised by UNSC Resolution 984 immediately prior to the NPT Review and Extension Conference. Informal talks were conducted in 2018 within the Conference on Disarmament but were scuppered by a dispute between the US and Indian representatives on whether non-NPT states could issue NSAs. Progress on moving forward the objective of a global legally-binding unconditional NSA regime now appears to be stymied, and there seems little interest within NWS to engage in this effort. One important reason for this is that NWS do not consider it legitimate for international organisations to have any competence or mandate to externally restrict their military doctrines.

It may have been more successful for NNWS to consider support for quiet informal exploratory talks with and between the NWS (including defence planners) on the particular exceptions they offer and whether the cost-benefit to them could merit a tightening or redefinition of their exceptions, in terms of the threats they face. Currently, it appears that progress on NSAs is withheld in any situations in which the defence establishment of the NWS in question judges there may be a chance that their nuclear arsenal could deliver a future deterrent effect, or where NSAs are seen as an incentive to NNWS to maintain compliance with their non-proliferation obligations. But the costs associated with these decisions, both to the international community and specifically to the non-proliferation regime, may be underestimated by NWS decision-makers. It seems likely that defence establishments have little idea the damage their failure to progress NSAs have on their government's relationships around the world, and the health of the non-proliferation regime.

NWS could consider a number of ways to strengthen NSAs previously given that would not negatively impact their security nor require any change in the current security environment.

- Non-compliance with NPT. Currently most NWS limit their NSAs to states they judge to be in compliance with their NPT obligations, implying a potential nuclear threat to those that are not. This further implies the use of nuclear threat to compel compliance, thus communicating that nuclear weapons are tools of global governance. This is deeply unhelpful. The caveat could be restated to explain that states with an illicit nuclear arsenal would lose any NSA guarantees.
- Chemical and biological weapons. The 2010 Nuclear Posture Review noted that the US military could deter any chemical or biological threat by conventional means, but the 2018 NPR reversed this. NSA

exceptions governing CBW have not deterred the use of chemical weapons. Instead the exception could have the perverse effect of legitimising CBW by treating them as a poor state's response to overbearing nuclear weapon threats.

- Emerging technologies. The 2018 NPR caveat that nuclear deterrence may apply to the use of emerging technologies with strategic effect reveals a deeply discouraging logic that NWS envisage nuclear weapons having application beyond deterring nuclear threats, far into the future. NNWS have indefinitely agreed to not develop nuclear weapons, which according to this logic may be essential to deter threats that could emerge in an uncertain future.

Legal NSAs for NWFZs

Step: action 9 (2010), ratification of protocols to all NWFZs

Stepping stone: regular consultations on the matter of protocol ratification, including focus on overcoming the obstacles

There are a number of blockages to NWS issuing protocols, some to do with internal NWS issues such as the legislative hurdles to any ratification process, and some with strategic matters. The negative effects from the failure of NWS to ratify protocols to the NWFZs need to be assessed.

None of the NWS have ratified the Bangkok Treaty. The United States has previously expressed concerns over Myanmar's non-proliferation record. It is commonly interpreted that the protocols restrict states' ability to transit or operate nuclear weapons within the Zone, whilst the United States maintains a deliberate policy to neither confirm nor deny the presence of nuclear weapons on their surface ships, even though they have not carried them for over 20 years. This practice is seen by some regional states as unnecessarily disrespectful of their sovereignty and security. The borders of the Zone have been subject to dispute given China's maritime claims over exclusive economic zones with four Treaty members - the Philippines, Vietnam, Malaysia and Brunei.

Yet, China has indicated a willingness to ratify a protocol to the Treaty, thereby promising never to use bases in South East Asia for nuclear platforms and to confirm it would not introduce nuclear weapons to that region. Consultations between NWS and NNWS involved may show that movement on the protocols is possible. The benefits to regional security could be considerable, yet appear to be underestimated by NWS.

Sole-purpose

Step: step 9 (2000) and action 5c, 5e and 8, 'a diminishing role for nuclear weapons in security policies'

Stepping stones: unilateral or coordinated political declarations of sole purpose

While states continue to possess nuclear weapons, some would see this as including a series of steps towards a mutually binding No-First-Use (NFU) agreement. While a No First Use is considered to be a step too far by most of the NWS, governments may consider smaller stepping stones possible in today's security environment. Progress on declaratory policy and doctrine is important to NNWS, in demonstrating a gradual relinquishment of attachment to nuclear weapons. A number of NNWS see it as deeply hypocritical for NWS to expect NNWS to forgo nuclear weapons, while they continue to play a central role in NWS security doctrines beyond the deterrence of nuclear threat or use.

During the Obama Nuclear Posture Review (published 2010) officials were contemplating a unilateral move to declare the sole purpose of the US nuclear arsenal being to deter the threat or use of nuclear weapons against the United States or its allies. This would not necessarily have formally constrained the actions of the US Government at the point of use, rather it would have been a statement to clarify the purpose of acquisition, one that might affect also choices of nuclear system and perhaps posture, but leave open the option of use in other extreme circumstances.

States may consider unilateral declarations of the “extreme circumstances” in which they would countenance nuclear use, sole-purpose, or sole-use as a basis for generating mutual understanding within the international community. Beyond the value in developing trust and confidence between NWS, such statements are valued by NNWS as signalling commitment of intent.

Political declaration

Step: step 6 (2000), ‘an unequivocal undertaking by the nuclear-weapon states to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States Parties are committed under Article VI’

Stepping stone: a renewed declaration by NWS that a nuclear war cannot be won and should never be fought, an explicit recognition of the risks attached with nuclear weapons and renewed commitment to reduce the salience of nuclear weapons in defence postures.

Political declarations, whilst of limited value when they exist in isolation from concrete moves, may be important in clarifying intent, expressing the limits to nuclear postures and thereby signalling open channels of communication, and building confidence. There is always scope for competing interpretations of nuclear posture, and unless they have information to the contrary, states tend to veer towards a worst-case analysis.

The 1985 Geneva statement by Reagan and Gorbachev against fighting a nuclear war came at a moment of high tension when military planners were considering just such war-fighting scenarios, and was highly influential in reducing tensions and building the groundwork for far greater collaborative movement on the part of both leaders to reduce nuclear risks.

Resistance today to such a political statement demonstrates a lack of good will and a competing attachment to a certain hard-line nuclear deterrent posture. For example, the United States has been criticised that changes to its nuclear posture in the 2018 NPR lower the nuclear threshold and enable warfighting. Washington has defended its modernisation plans saying this is not the case. If this is so, a political declaration would go a long way to convincing NNWS sceptical of the direction of nuclear policy internationally. It has been said that proposing such a declaration today could exacerbate the concern within the international community should a NWS resist joining the declaration and thereby expose its resistance to such goodwill initiatives. But were this to happen it would at least clarify an area for states to collaborate in building such confidence.



Presidents Ronald Reagan and Mikhail Gorbachev. World History Archive, Alamy.

3.2 Rebuild habits of cooperation

The NPT opened for signature in 1968 at a time when relations between the United States and the Soviet Union had been strained, the arms race was in its heyday and the two had amassed over 40,000 deployed warheads. The NPT contained within it extraordinary ambition establishing the foundation of the global non-proliferation regime despite that strategic context. Bilateral arms control agreements between the two superpowers were subsequently concluded in the midst of the Cold War to manage the strategic relationship. Cooperation delivered diplomatic results despite the depth of ideological conflict and the threat of massive nuclear exchange.

In recent years this has been lost. Partly this is in response to the broader deterioration of relationships combined with a failure to firewall arms control from other issues in the manner practiced in earlier times. Cooperation has also fallen victim to a general shift in negotiation tactics between states towards brinksmanship and inflexibility. There is also a deepening suspicion amongst many NNWS that the NWS have no intention of fulfilling their obligations, even were the strategic situation be amenable to disarmament as it was in the 1990s (reductions are not the same as full disarmament). They complain that an attitude that accepts strategic relationships as uncontrollable, a bit like the weather, is to abdicate responsibility. As a result, they have taken the process into their own hands by meeting first to discuss the humanitarian impacts of nuclear use and then negotiating a Treaty on the Prohibition of Nuclear Weapons. The TPNW has been seen as a direct confrontation to the NWS, who have criticised the move as a challenge to the established NPT.

Progress on meeting obligations will require cooperation amongst states within the international community, rather than arm-twisting or engaging in the blame game.



A Kh-47M2 Kinzhal ALBM being carried by a Mikoyan MiG-31K interceptor.

Transparency

Step: step 9 (2000), NWS to be transparent in their “nuclear weapons capabilities and the implementation of agreements pursuant to Article VI”. Action 5 (2010), NWS to report their progress on the agenda to the NPT Preparatory Committee 2014

Stepping stones: NWS to consider early realistic transparency measures

Transparency is important to the NPT process, in both building confidence in NWS intent and actions to disarm as well as increasing understanding amongst states. Transparency and voluntary confidence measures must be a starting

point to any successful disarmament negotiations.

The P5 Process was set up in 2008 as a forum for the NWS to understand and discuss approaches to nuclear disarmament. It has the potential to be a productive forum for discussions on nuclear doctrines, declaratory policies, modernisation, crisis stability, deterrence and disarmament. Following a lapse in meetings, China took efforts to restore the process in early 2019 and has said it wants it to pursue an ambitious agenda. Yet if good work comes from these discussions it is rarely understood by NNWS due to limited engagement beyond the NWS. In 2014, the UK invited NNWS within the NPDI group to participate in some discussions. In late 2018, the United States suggested creating open-ended working groups on nuclear disarmament of 25 to 30 states.⁴ This could be a basis for greater consultation and involvement of NNWS with the P5 Process.

Implementation process

Step: step 6 (2000), ‘an unequivocal undertaking by the nuclear-weapon states to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States Parties are committed under Article VI.’ Accountability to all commitments made at the NPT

Stepping stones: voluntary reporting by NWS on progress in implementing their disarmament commitments building on the experience in 2014, and engagement with this by NNWS.

There is a general feeling that commitments made at the NPT in the 13 Steps and 64 Action Plan have not been honoured. Formal accountability mechanisms would likely fall at the first hurdle if proposed at the NPT. Each NPT Review Cycle involves three annual Preparatory Committees before a Review Conference, giving ample opportunity for NWS to demonstrate greater accountability. At the 2014 PrepCom, NWS made declarations on their progress on commitments made within the 64 point action plan. These statements were problematic in many ways: on the one hand, most NNWS viewed the progress reported as unsatisfactory and on the other hand, NWS felt that constructive engagement by NNWS over issues relating to implementation was unforthcoming. Reports to the NPT are all-too-often left to gather dust as states launch into positional statements.

3.3 Reduce Nuclear Risks

Many people have been warning of increased nuclear risks in recent years. The Doomsday Clock has been set to two minutes to midnight reflecting the likely slippage into a new arms race and there are obvious signs

that the US and Russian leaderships appear more willing to threaten the use of nuclear weapons. Yet there appears to be a complacency surrounding the issue: first, there is little common understanding within the international community about what constitutes nuclear risk; second, arms control and restraint appears under threat. It is obvious the NWS have special responsibilities and ought to be prioritising measures that reduce nuclear risks, and to be accountable to the rest of the international community in doing so. This would include diplomatic reassurance, but would obviously need to go beyond this. There are 'wicked', complex relationships between deterrence, strategic stability and risk reduction measures that need to be assessed cooperatively with all affected parties. One of the core challenges with risk reduction is that many 'traditional' risk reduction proposals are viewed by the defence establishments as potentially undermining nuclear deterrence postures. Political and military leaderships obviously need to be fully engaged in the project to reduce risks, as it is their decisions and postures that have most impact.

Mutual crisis management

Step: not codified, but could be the establishment of nuclear risk reduction and crisis management centres
Stepping stone: re-established mil-mil contact

In today's security environment the greatest risk of nuclear escalation arises from misperception and miscalculation, rather than a 'bolt from blue' military strike.⁵ There is a risk that a conventional crisis between NATO and Russia could spiral. In a chilling interview, the Supreme Commander of NATO Forces in Europe, noted that 'during the Cold War, we understood each other's signals. We talked... I'm concerned that we don't know them as well today'.⁶ In South Asia, communication and understanding between militaries is lacking and tensions have run high since border clashes in February 2019. And in East Asia, uncertainties pervade the management of the DPRK nuclear issue, and the broader US-China deterrence relationship.

One positive step could be to establish regional nuclear risk reduction and crisis management centres to create an environment in which further disarmament steps could be made. In today's media-saturated environment, characterised by fake news, crisis management centres would establish trusted communication channels to avoid mistaken retaliatory attacks. As a first step, states could consider re-establishing or improving military to military contact and trusted hotlines. This would reduce ambiguities and help deepen understanding of nuclear signalling, creating the conditions for more established and institutionalised political channels for risk reduction.

Clarity on nuclear systems

Step: step 9 (2000), 'further reduction of non-strategic nuclear weapons, based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process'
Stepping stone: US-Russia dialogue on the use of dual capable systems

Dual-capable systems such as cruise missiles, that can carry either conventional or nuclear payloads and deployed ambiguously, are seen as flexible by military planners but they enhance the risks of misperception and miscalculation. Yet the United States and Russia appear to be moving in this direction, with nuclear doctrines that contemplate limited nuclear retaliation, including in response to non-nuclear attacks. Creating clear distinctions between conventional and nuclear systems, so that any adversary could say with certainty whether a weapon was nuclear or conventional would ameliorate this risk. But it is likely that proposals to limit dual-capable weaponry will have to accompany a shift to a more recessed nuclear doctrine.

In the meantime, establishing some level of mutual understanding over the purpose of use of dual-capable systems, within a larger conversation on nuclear doctrine, could begin to curb the risks of ambiguity and perhaps loosen the attachment nuclear systems superfluous to a deterrence only second-strike capability.

Cyber vulnerabilities

Step: unidentified at this point, but perhaps a Code of Conduct

Stepping stone: better integrate cyber vulnerabilities into assessments of nuclear risk, and to open broader discussion amongst NWS and with NNWS

A number of emerging and disruptive technologies present grave risks to the strategic stability nuclear deterrence relationships rely upon. While these should be a wake-up call revealing the fragility of nuclear deterrence and a call to find alternative approaches to providing security, it is also incumbent on NWS to protect against these risks, to decrease the likelihood of nuclear use as they continue to engage in nuclear deterrence. The established step-by-step approach codified in NPT final documents has not generally addressed this issue, but if they had they may have talked of establishing a code of conduct or other means to limit the development of offensive cyber tools directed against nuclear command and control systems. The problem is that there are significant incentives to developing them and very challenging obstacles to verifying any code of conduct.

In the meantime, NWS need to better account for the risks to command and control that arise as a direct result of escalating offensive cyber capabilities, and the subsequent impacts upon the reliability of nuclear deterrent postures and systems, and the risks of nuclear exchange. NWS need to be more open with each other and with NNWS about these risks and to discuss measures to mitigate them.

Extending decision times

Step: step 9 (2000), 'Concrete agreed measures to further reduce the operational status of nuclear weapons systems'

Stepping stone: reduce the number of systems on a launch on warning (LOW) operational posture

There have been a number of proposals aimed at lengthening the decision-time for leaderships in a nuclear crisis, though none have been uncontroversial. These include, but are not limited to, installing security switches, removing pre-defined targeting, taking weapons off LOW, and storing warheads separately from the delivery vehicles. Some progress has been made since the Cold War, and the UK, French and Chinese arsenals appear to rely upon assured second strike capabilities, but many of these proposals face strong opposition within US and Russian leaderships, fearful that such efforts will only lead to rapid-response mechanisms deployed earlier in a crisis. De-mating is impossible for patrolling SSBNs.

3.4 Enhance transparency and controls

All nuclear weapons programmes have involved a substantial degree of secrecy written into their DNA. Yet it is generally assumed that the confidence necessary to achieve progress on disarmament requires some degree of transparency and verification over the arsenal and the stocks of fissile materials that support it to confirm a state is not secretly retaining its arsenal as a hedge. Continued secrecy undermines trust between NWS and with the wider international community.

Reporting: plans for arsenals and salience

Step: action 5g (2010), to enhance transparency, the NWS to report on their undertakings to future PrepCom.
Stepping stone: further explanation and transparency over modernisation reporting to NNWS

NWS still retain some degree of opacity over numbers and force structure, and in the US case recently appear to be going in the wrong direction in declaring its overall warhead numbers to be classified. This deepens doubt over the intention ever to relinquish attachment to nuclear deterrence. NWS could improve their public reporting on numbers, modernisation plans, force structure and fissile materials to support the NPT.⁷

In the meantime, NWS could engage in ad-hoc discussions and dialogue within the P5 Process and at NPT meetings. At the 2018 NPT PrepCom and UN First Committee, the United States took the opportunity to explain the thinking behind the 2018 Nuclear Posture Review, this was a welcome first-step, one that could be mirrored by other NWS. The NNWS could also consider how they might make best use of such opportunities to air their concerns.

Reporting: fissile materials

Step: action 15 and 16, negotiation on a fissile material cut off treaty and NWS to declare all fissile material designated as no longer required for military purposes and to dispose of it

Stepping stone: NWS report on fissile material stockpiles

As of January 2017, there was an estimated 1340 tonnes of highly enriched uranium (HEU) and 520 tonnes of plutonium globally.⁸ All NWS are believed to have ended fissile material production for military purposes, though the majority have not publicly declared their stocks. Stocks of fissile material are often used as a hedge and therefore undermines confidence in irreversibility. Whilst both the United States and UK have made public declarations, the UK's last declaration was 2006. The reasons for opacity are relatively weak, and greater transparency would be a significant contribution to confidence in the regime.

CTBT ratification

Step: action 10 (2010), early ratification and entry into force

Stepping stones: declarations supporting a continued moratorium, and regional efforts to support ratification of CTBT

A comprehensive test ban is regarded as essential to successful non-proliferation and disarmament, and featured heavily in the 2000 and 2010 consensus documents. The Treaty has been open for signature almost 25 years and has an extensive global monitoring system, and yet it has not entered into force due to eight states holding out on ratification. Efforts to overcome the obstacles have been substantial but international diplomacy has been unsuccessful. The CTBTO has already taken a stepping stones approach to implementation, with regional discussions to encourage ratification, building up its verification capacity and the normative support for a universal moratorium short of a legally binding treaty. These efforts remain critical.

Disarmament Verification

Step: step 13 (2000), creating robust disarmament verification capabilities that command confidence

Stepping stone: re-engagement with Russia and China, and integrating IPNDV with the P5 Process.

The development of verification technologies and practices has been one of the few areas of positive development within the disarmament regime, though critical gaps remain due to technical challenges. International collaboration has developed in a number of initiatives. Verification requires a whole systems approach. It cannot be viewed as technology in isolation and if it is going to enable further disarmament efforts, political involvement will be essential. It is important that all NWS engage in disarmament verification projects. Russia and China participated in Phase 1 of IPNDV as observers but have declined involvement in Phase 2 of the project. Russia and China should be engaged as a step towards building confidence in disarmament verification.

4 Conclusion

The Stepping Stones Approach is not proposed as a competing alternative to established mechanisms. Rather, it sits alongside them, a pragmatic method aimed at nudging the international community in the right direction towards implementing the disarmament objectives already expressed within NPT consensus documents. This has a certain number of implications.

- This is an inclusive and adaptive approach, one that seeks involvement from diverse perspectives and actors. It is not limited to the NWS, nor to the diplomatic community.
- The involvement of political and military leaderships is essential. This is why the Swedish government is looking to this initiative being led at the Ministerial level. It also needs to draw in the deterrence community, and particularly military planners within the NWS.
- This is not about leaping in at the level of formal negotiation or legally-binding solutions in the first instance. If the Conference on Disarmament is to be involved it ought to be as a forum for exploration rather than negotiation, at least in the earlier stepping stones. Diplomats could consider how best to maximise the use of informal processes – bilateral and multilateral – to build understanding and support for the Approach.
- The NPT is an appropriate place for review and accountability, and works best when states see opportunities for building habits of cooperation and open exploration, building on past successes and learning from failures.
- The Security Council can and should be a source of critical leadership. The NWS, operating within the P5 Process, have differentiated and special responsibilities around disarmament and could consider amongst themselves the possibility of developing their stepping stones proposals, implementing and working towards past commitments. The diversity amongst them in terms of posture and priority is a source of complexity, but it could also help deepen their mutual understanding through dialogue. For example, how is it that the British, French and Chinese can pursue variations of a minimum deterrence posture whilst the United States and Russia feel compelled to have a counter force strategy? What would it take for the British and French to begin on the road towards sole purpose as a position?
- Regional approaches are critical, as it is largely regional security dynamics that drive deterrence. NATO, and potentially the NATO-Russia Council, provides an important venue to consider potential Stepping Stones in the European context. NNWS could look for opportunities to engage NWS through a variety of forums. The processes for discussion can sometimes have as much impact on the chances of success as the content of the proposals themselves.

True disarmament demands processes that respect the complexities within the current political, military and diplomatic systems. This is not a middle-of-the-road position. Rather it is a general observation that change in the face of complexity requires inclusive pluralist approaches aimed at adaptive improvement over time. By developing stepping stones we can change the diplomatic and security environment in a way that opens up possibilities for disarmament that today appear impossible.

Endnotes

[1] India, Pakistan and North Korea. Israel is believed to have acquired nuclear weapons before 1969.

[2] Department of Defence, “Nuclear Posture Review” (2018), last accessed on 18 April 2019 <https://dod.defense.gov/News/SpecialReports/2018NuclearPostureReview.aspx>;

[3] Paul Ingram, ‘Negative Security Assurances: The Test of Commitment to Multilateral Nuclear Disarmament’, *BASIC*, May 2018, <https://www.basicint.org/negative-security-assurances-the-test-of-commitment-to-multilateral-nuclear-disarmament/>

[4] Dr Chris Ford, ‘The P5 Process and Approaches to Nuclear Disarmament: A New Structured Dialogue’, U.S. Department of State, December 2018, <https://www.state.gov/t/isn/rls/rm/2018/288018.htm>

[5] John Gower, “Nuclear Signalling between NATO and Russia”, *European Leadership Network*, October 2018, p. 14.

[6] Robert Burns, ‘US-Russia chill stirs worry about stumbling into conflict’, *AP News*, April 2019, <https://apnews.com/bod2b33596fc4604b2cd4384c9e2bd32>

[7] Hans M. Kristensen, ‘Pentagon Slams Door On Nuclear Weapons Stockpile Transparency’, *Federation of American Scientists*, April 2019, <https://fas.org/blogs/security/2019/04/stockpilenumberssecret/>

[8] Source for figures is the website of the International Panel on Fissile Materials, <http://fissilematerials.org/>

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Whilst the author takes full responsibility for the report, BASIC’s reports are always a team effort. The report is based upon and influenced by original work by the wider BASIC team, including Marion Messmer and Rishi Paul. Marion also laid the report out.

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