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## Open-ended Working Group taking forward multilateral nuclear disarmament negotiations<sup>1</sup>

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Item 5 of the agenda

Taking forward multilateral nuclear disarmament negotiations

### Security and humanitarian implications of relying on nuclear weapons for deterrence, and effective legal alternatives

#### Submitted by Acronym Institute for Disarmament Diplomacy

1. At the 2010 Review Conference of the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT) called "on all nuclear-weapon States to undertake concrete disarmament efforts and affirms that all States need to make special efforts to establish the necessary framework to achieve and maintain a world without nuclear weapons...."<sup>2</sup> Consensus documents – where achieved – from NPT Review Conferences since 1995, as well as Article VI in the founding treaty, make clear that nonproliferation and nuclear disarmament are shared responsibilities, with obligations on nuclear and non-nuclear weapon states.

2. Five nuclear-armed states are parties to the NPT, three of which are depositaries for the Treaty. These five have accepted the treaty's obligations, including Article VI on nuclear disarmament. Lack of implementation of Article VI is raised as a matter of urgent concern at every NPT Review Conference since 1970, including Preparatory Committee meetings since 1995, when the NPT was indefinitely extended.

3. Three nuclear-armed states have not signed or acceded to the NPT, and are not covered by its definitions or provisions. One state signed and ratified the NPT as a non-nuclear-weapon state, but issued its notice to withdraw in 2003. Though the legality of that state's withdrawal continues to be debated, it must be regarded for practical purposes as a nuclear-armed state outside the NPT, as demonstrated when it conducted several nuclear test explosions and declared its possession and intent to continue developing nuclear weapons,

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<sup>1</sup> Established pursuant to resolution 70/33 of the General Assembly of the United Nations.

<sup>2</sup> 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document, Part 1, UN Doc. , at 20.

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4. The belief that nuclear weapons provide deterrence and security appears from numerous statements and documents to be employed by some or all of the nine nuclear-armed states as reasons or justifications for developing, manufacturing, maintaining, deploying and adding to nuclear arsenals. It follows that nuclear deterrence beliefs, assumptions and requirements impede meaningful progress towards multilateral nuclear disarmament by reinforcing the assumptions and value attached to nuclear weapons by some possessor states.
5. Doctrines of extended deterrence that entail operations and other political and practical arrangements for the use and threat of use of nuclear weapons are shared by 28 members of the North Atlantic Treaty Organization (NATO) and a handful of other states through bilateral agreements with one or more nuclear-armed states. These nuclear-dependent/nuclear umbrella states are all parties to the NPT. Together with five of the nuclear-armed states, they endorsed by consensus the 2010 NPT Review Conference's statement of "deep concern at the catastrophic humanitarian consequences of any use of nuclear weapons and reaffirms the need for all States at all times to comply with applicable international law, including international humanitarian law."<sup>3</sup>
6. Through 'extended deterrence', nuclear alliances have blurred the obligations, roles and security interests of states that have joined the NPT as 'non-nuclear-weapon states'. These arrangements involve training and collaboration for military personnel of 'non-nuclear-weapon states' to receive, acquire or – in the event of war, to take control of nuclear weapons belonging to a nuclear-armed ally. They have created additional dangers and threats to the security of states inside and outside such alliances, including enhanced risks of non-state terrorism and unauthorised detonations during nuclear transports, deployments, or times of crisis and instability.
7. Such nuclear alliances have been regarded by some as a necessary cohesive for military cooperation, or as a way for some allies to avoid the costs and consequences of acquiring nuclear weapons of their own. Arguments have also been made that this enabled states with nuclear programmes in the 1960s to forego national acquisition costs and consequences and join the NPT. Notwithstanding the salience of such justifications for some nuclear weapons advocates, the politics and operations of nuclear dependency are increasingly viewed by the majority of NPT states parties as being contrary to the text, objectives, spirit and intentions of the Treaty and nonproliferation regime.
8. While 138 UN Member States voted in favour of the resolution 'Taking forward multilateral nuclear disarmament negotiations'<sup>4</sup> at the UN General Assembly in December 2015, nuclear-armed states and allies that incorporate nuclear deterrence in their security doctrines and policies were disproportionately represented among the 12 states that voted against and the 34 that abstained on Resolution 70/33.
9. This pattern of decision-making tends to be replicated across a range of nuclear-disarmament-related resolutions and efforts in the UN-based multilateral system, including the Conference on Disarmament, where the refusal by one or more nuclear-armed states to join consensus on decisions relating to procedural decisions such as the programme of work, has been the major obstacle to negotiations since 1996, notably blocking progress to negotiate and conclude a fissile materials treaty,
10. These facts indicate that the beliefs, theories and operations associated with nuclear deterrence are a significant factor in the positions that states take regarding effective legal

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<sup>3</sup> 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document, Part I, UN Doc. NPT/CONF.2010/50 (Vol. I), at 19.

<sup>4</sup> Resolution 70/33 of the General Assembly of the United Nations

measures, provisions and norms that will need to be concluded to attain and maintain a world without nuclear weapons.

11. As analysed below, nuclear deterrence doctrines contribute to proliferation, limit nuclear arms reductions and prevent effective measures and meaningful steps being taken for nuclear disarmament and full implementation of the NPT.

12. It is therefore necessary and relevant for the UN Open-ended working group on taking forward multilateral nuclear disarmament negotiations to address the role of nuclear deterrence beliefs, theories and practices.

## Concepts of deterrence

13. Forms of deterrence per se have been part of individual and collective security and defence strategies in most if not all societies from time immemorial. They have carried different connotations, expectations and meanings for different practitioners through history.

14. The majority of UN member states (over 150 out of 193) employ deterrence in a range of forms without any reliance on nuclear weapons, in accordance with rational security and defence doctrines and policies appropriate for their needs. These nations do not possess nuclear weapons themselves or engage in nuclear-armed alliances.

15. Equating the possession and deployment of nuclear weapons with deterrence was driven by certain defence and academic establishments from the 1950s onwards. Though militarily flawed, the association continues to be asserted as a public relations strategy in the nuclear-dependent states to justify – and make more palatable – the growing costs, sizes and numbers of nuclear arsenals and facilities.

16. Nuclear deterrence as a concept has been translated into various kinds of doctrines by different defence establishments, and at different times. Changes in nuclear weapons types and numbers tend to influence the adoption of different deterrence postures, not the other way around.<sup>5</sup>

17. Deterrence was initially based on threatening severe punishment to deter people from offending. Adopted centuries ago as a component of military and security strategies, deterrence was associated with issuing of threats of punishment in the form of violent retaliation in order to convince adversaries to refrain from coercive or aggressive acts against the deterring country or its vital assets and allies. Some theories also identify deterrence effectiveness in terms of abilities to dissuade, deny, compel, contain and defeat adversaries. In their 2011 critique, the retired US nuclear policymakers George P. Shultz, William J. Perry, Henry A. Kissinger and Sam Nunn noted that before nuclear deterrence was developed as a theory and practice in the Cold War, "Deterrence and war strategy were identical".<sup>6</sup>

18. For deterrence to work, decision-makers in states need to understand the red lines they are being warned not to cross. The threats of action in the event that they do cross the red lines must be appropriately understood, sufficiently feared, and credible. This means that a state must be able to convey the warning, the intention and the capability to inflict damage that would outweigh any perceived benefit that a potential aggressor might expect to achieve through coercion or attack. In the past this was thought to require the

<sup>5</sup> Commander Robert Green (Royal Navy, retired), *Security Without Nuclear Deterrence*, Astron Media, NZ, 2010.

<sup>6</sup> George P. Shultz, William J. Perry, Henry A. Kissinger, Sam Nunn, *Deterrence in the Age of Nuclear Proliferation: The doctrine of mutual assured destruction is obsolete in the post-Cold War era*. *Wall Street Journal*, New York, 7 March, 2011.

establishing and projecting of military capabilities that could intimidate an adversary into believing that even if an aggressor were "victorious" the costs would be greater than the projected gains.

19. When deterrence became associated with nuclear weapons, the type(s), deployment, command and control operations as well as leaders' intent and capability to fire had to be operationalised so that they would appear credible.

20. In preparation and effect, nuclear deterrence entails threats to commit mass murder of innocent noncombatants, including children and environmental devastation on a massive scale. If the threatened actions are perceived as significantly harming the state that issues the threats (or its allies), deterrence is less likely to be credible. Nuclear threats that are viewed as suicidal, are not credible for the purposes of deterrence. Similarly, suicidal aggressors (state or non-state) are unlikely to be deterred by nuclear weapons.

21. The public relations rhetoric from nuclear advocates has long portrayed deterrence as a kind of inherent property of nuclear weapons. It's not; deterrence is essentially a communicative relationship and security process between and among potential military and political adversaries, and may be applied to rivalry and disputes about territory, resources, regional power, ideological, religious or economic interests etc. While military threats can be a useful component of deterrence in certain circumstances, they may also result in unintended consequences, including miscalculations.

22. Creating uncertainty and fear in a potential aggressor's mind about the risks and consequences of threatening any vital assets or allies is assumed to induce restraint rather than increased insecurity. There appears to be little evidence on which to base such an assumption. On the contrary, uncertainty may increase the perils of crisis instability in which target states, regimes and actors fail to recognise a deterrent warning – especially if conveyed through a military build-up, exercise or demonstration – and instead perceive such actions as threats to their own interests and security. The immense destructiveness of nuclear weapons and short flight times mean that uncertainty can lead to pre-emptive strikes in a "use them or lose them" fog of war panic.

23. The nuclear deterrence doctrine embraced by NATO allies and most if not all nuclear armed states is the threat to launch weapons that would create massive "counter-value" destruction of cities, thereby causing an adversary's leaders to refrain from any aggressive acts they might be contemplating. Evidence from history and military psychology indicates that military and political leaders have not in general been deterred by adversaries' threats to besiege or annihilate their major cities. Evidence indicates that it would be foolish to rely on threatening cities as a clinching deterrent.<sup>7</sup>

24. Deterrence can be achieved through the assertion, assurance and signalling of various aspects of economic and defence capabilities, power (including ability to coordinate collective economic and political sanctions) and intent, using a variety of different tools: diplomatic, political, and legal, as well as (if deemed necessary) military. In the 21st century, military capabilities are neither the sole component, nor the most important. Dissuasion, denial, compellence<sup>8</sup> and punishment can be effected through other means,

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<sup>7</sup> See Ward Wilson, *Five Myths about Nuclear Weapons*, Houghton Mifflin Harcourt, 2012

<sup>8</sup> Some analysts regard compellence as an aspect of deterrence, while others regard it as a form of blackmail. It is not necessary to resolve the distinction between these perspectives to accept that they are closely related components of what Thomas Schelling called "coercive diplomacy". See Thomas Schelling [https://www.google.co.uk/?gws\\_rd=ssl#q=compellence+vs+deterrence](https://www.google.co.uk/?gws_rd=ssl#q=compellence+vs+deterrence). With regard to the 1962 Cuban Missile Crisis, which is often cited as a 'successful' example of nuclear deterrence, Schelling argued that "President Kennedy's sending of the fleet to sea, in quarantine of Cuba in October 1962 can be considered as an historical example of compellence. Although the blockade had

such as political and economic pressures, diplomatic isolation and the use of sanctions. Such tools of deterrence are more effective if imposed through collective action by neighbours or other UN member states, than by a single entity.

25. While military threats can be a useful component of deterrence in certain circumstances, they may also result in unintended consequences, including miscalculations. One country's deterrent is another's dangerous threat. History shows how differently government leaders and militaries perceive their own and an adversary's actions.

26. Non-deterable and many deterable threats may be neutralised or diverted into less violent, coercive or oppressive avenues through diplomatic, political, international and other actions and means designed to persuade and encourage all sides to seek non-violent and non-coercive means to resolve the causes of potential conflicts rather than resorting to the use of force. That such approaches would be persuasive rather than dissuasive should not blind us to their deterrent value.

27. Stronger implementation of international laws and treaties, including disarmament and weapons prohibition treaties where applicable, will provide enhanced deterrence, including uncertainty in the minds of potential violators (suppliers as well as perpetrators) that they will evade detection, identification and legal charges, convictions and penalties, including for serious crimes against humanity, war crimes and/or treaty violations.

28. It should be noted that for much of the Cold War, cheaper and more accessible weapons of mass destruction (WMD), such as chemical and biological weapons came to be regarded as "poor man's [sic] nukes". However, the drivers for chemical and biological weapons proliferation have in the past 20 years been substantially eroded, in large part due to the way in which the Chemical Weapons Convention (CWC), which entered into force in 1997, helped stigmatise those weapons and embed and oversee their prohibition – also stimulating further credibility and monitoring for the 1972 Biological and Toxin Weapons Convention (BWC), even if formal multilateral verification agreements were not agreed in the 2000s.

29. Treaty regimes such as the BWC and CWC, combined with the broadening role, powers and recognition of the International Criminal Court (ICC) could be utilised more fully to deter proliferators, suppliers and users of inhumane weapons, especially against non-combatant populations. Such legal and diplomatic tools are not currently available for deterring nuclear proliferation because the possession, deployment and use of nuclear weapons has not yet been prohibited under universally-applicable and nondiscriminatory international law.

30. Signalling certain kinds of threats or capabilities for deterrence purposes also causes arms build-ups and escalatory actions and reactions that can lead to rather than prevent war. History is full of examples of miscommunication leading to miscalculation, leading to worse outcomes than the original threat that was supposed to be deterred.

31. As with all military and political strategies, deterrence doesn't always operate as anticipated, and is known to fail at least some of the time. Depending on the deterrence tools and threats utilised, a failure can either turn out to be surmountable or it may lead to conflict and war.

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some quality of deterrent stage setting, it was essentially an overt act (with a degree of irrevocability in commitment) that forced the Russians to act to avoid a US-USSR collision."

## Nuclear deterrence : unclear, shifting doctrines and contradictions

32. The deterrence doctrine known as mutually assured destruction (MAD) is credited by some with having stabilised the US-Soviet relationship in the cold war. On the contrary, according to George Shultz, William Perry, Henry Kissinger and Sam Nunn, US defence leaders "made serious efforts to give the president more flexible options for nuclear use short of global annihilation. They never solved the problem, and it was always recognized that Washington and Moscow both held the keys to unpredictable and potentially catastrophic escalations."<sup>9</sup>

33. One foreseeable cause of failure is when the protagonists in a deterrent relationship misunderstand or miscalculate the intentions and capabilities that are being signalled and deployed, whether through over-estimation, under-estimation or through human or technical errors. As noted by Shultz, Perry, Kissinger and Nunn in 2007, relying on nuclear weapons for deterrence is "increasingly hazardous and decreasingly effective".<sup>10</sup> In later articles they noted further problems, describing nuclear deterrence as "precarious" and "psychological, depending on calculations for which there is no historical experience".<sup>11</sup> General Lee Butler, Commander in Chief of the US Strategic Command 1992-94, described nuclear deterrence as "a dialogue between the blind and the deaf... [that] carried a demon seed, born of an irresolvable contradiction."<sup>12</sup>

34. Due to the overwhelming mass-destructive risks in nuclear weapons, nuclear deterrence mistakes or miscalculations are most likely to prompt an adversary to take desperate risks or pre-emptive actions that could provoke nuclear use and war instead of deterring. And since overwhelming nuclear destruction is the primary nuclear deterrence threat being signalled to a potential aggressor, any failure that led to a nuclear detonation would cause a humanitarian and environmental catastrophe.

35. The oft-heard substitution of the term 'deterrent' for 'nuclear weapons' is not based on hard evidence, but serves to close off meaningful inquiry into whether nuclear weapons do deter, as illustrated by the tautology that renders meaningless the question 'does the deterrent deter?'. The intent of this linguistic spin strategy is to foster a psychological and emotional locking together of the concepts of nuclear weapons, deterrence, insurance and security. It conveys nothing about the real world, where life and death may depend on whether there is an actual or credible connection in the minds of adversaries who are supposed to be deterred. Naming a cat 'dog' does not, after all, confer the ability to bark.

36. After the Cold War, NATO-led discussions on "tailored deterrence" allowed for a broader and more nuanced analysis of the role, needs and tools for deterrence. This called for tailoring communications and capabilities to specific actors and situations across a spectrum. Efforts to develop "tailored deterrence" then stumbled on the issue of if, when and how to utilise nuclear weapons without provoking the escalation that the sides want to deter, especially in times of crisis or deteriorating political relations. Though now out of favour, the discussions about 'tailored deterrence' should have legitimised the recognition

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<sup>9</sup> George P. Shultz, William J. Perry, Henry A. Kissinger, Sam Nunn, Deterrence in the Age of Nuclear Proliferation: The doctrine of mutual assured destruction is obsolete in the post-Cold War era. *Wall Street Journal*, New York, 7 March, 2011.

<sup>10</sup> George P. Shultz, William J. Perry, Henry A. Kissinger, Sam Nunn and others, 'A World Free of Nuclear Weapons', *Wall Street Journal*, New York, 4 January, 2007.  
[http://www.nti.org/media/pdfs/NSP\\_op-eds\\_final\\_.pdf?\\_=1360883065](http://www.nti.org/media/pdfs/NSP_op-eds_final_.pdf?_=1360883065)

<sup>11</sup> George P. Shultz, William J. Perry, Henry A. Kissinger, Sam Nunn, Deterrence in the Age of Nuclear Proliferation: The doctrine of mutual assured destruction is obsolete in the post-Cold War era. *Wall Street Journal*, New York, 7 March, 2011.

<sup>12</sup> General Lee Butler, public speech given in Wellington, New Zealand, 1 October 1997.

of how a spectrum of tools can contribute to deterring the 21st century's range of potential threats and adversaries, and prompted deeper thinking within nuclear-dependent states about how to meet the security objectives assigned to nuclear deterrence with non-nuclear tools and approaches.

37. While some governments now restrict their justifications for nuclear weapons to deterring nuclear threats and attacks, many operations associated with extended deterrence, pre-emption and massive retaliation are associated with doctrines of nuclear first use. This continues to be salient in most if not all nuclear doctrines, as a means to deter conventional attacks. This version of deterrence relies on the belief that threatening to escalate a conventionally armed conflict by being the first to launch a nuclear attack will prevent the conventional conflict. There is no evidence that this would be the case. On the contrary, wargame scenarios indicate that the first use of nuclear weapons is most likely to precipitate a nuclear exchange, which would have global consequences even if the ensuing nuclear war were regionally limited.

38. Voluntary "negative security assurances" declarations by some of the nuclear-armed states in conjunction with the UN Security Council and NPT do not rule out the first use of nuclear weapons, and provide some caveats to the general commitment they make not to use nuclear weapons on non-nuclear countries, including caveats regarding nuclear threats and attacks on non-nuclear countries if they are in alliance with a nuclear-armed state.

39. Some governments still toy with the notion that "tactical" nuclear weapons could be used to deter or end a conventional conflict without escalating into nuclear war. The classification of tactical (aka "non-strategic") nuclear weapons is misleading. The terms are applied nowadays to nuclear weapons that are smaller than intercontinental ballistic missiles, with a shorter range for limited or regional "theatre" war. Most if not all battlefield nuclear weapons were withdrawn and eliminated at the end of the Cold War.

40. Realistically, the use of any kind of nuclear weapon would be strategic in impact, regardless of its size or range. Nuclear policy-makers in some nuclear-armed states are actively considering the development, deployment (and in some cases redeployment) of highly destabilising theatre and tactical-warfighting nuclear weapons, including nuclear warheads capable of being fired with dual-use delivery means, such as cruise missiles.

41. The retention and enhancement of air-launched nuclear free fall bombs in Europe, as well as potential new developments in weapons deemed to be tactical or non-strategic, contribute to the destabilising impression that smaller, more portable nuclear bombs are more usable as deterrents. These rationales and deployments, combined with the vulnerability of the smaller, portable 'tactical' weapons to terrorist acquisition or attack, heighten the risks of nuclear detonations in the future.

### **Implications of nuclear deterrence doctrines on non-proliferation, arms control and international security**

42. Although the NPT enshrines a nuclear disarmament obligation in Article VI, a serious limit is placed on nuclear arms reductions by the theory and belief that to be credible nuclear deterrence requires arsenal sizes and operations that can convince adversaries that the ability to retaliate would be retained even after suffering a pre-emptive nuclear attack.

43. There is growing evidence that the promulgation of nuclear deterrence doctrines serves as a proliferation driver. George Shultz, William Perry, Henry Kissinger and Sam Nunn also noted that "continued reliance on nuclear weapons as the principal element for deterrence is encouraging, or at least excusing, the spread of these weapons, and will

inevitably erode the essential cooperation necessary to avoid proliferation, protect nuclear materials and deal effectively with new threats."<sup>13</sup>

44. Nuclear deterrence arguments and operations undermine security, driving some to seek 'equalisation', for example, by massively building up other military capabilities, including cyber and space assets. In computer wargame trials conducted by the Pentagon, the use of weapons to neutralise the satellites on which most nuclear weapons rely for targetting and in-flight guidance led inexorably to the use of nuclear weapons and nuclear war on the ground. It was analysed that uncertainty arising from losing space-based "eyes and ears" caused miscalculations and led not to deterrence, but to rushed, panicky 'use them or lose them' decisions being made, with devastating consequences.

45. By contrast with biological and chemical weapons since they were prohibited under the BWC and CWC, the asserted 'promise' of deterrence through the acquisition and deployment of nuclear weapons has continued to play a significant role in driving proliferation decisions in today's nuclear-armed states, inside as well as outside the NPT.

46. For the 'nuclear-weapon states' defined in the NPT, the deterrence association continues to be both a factor and excuse for not moving more quickly towards compliance with the nuclear disarmament obligations in Article VI. Even where reductions have been undertaken by some nuclear-weapon states since the end of the Cold War, these have been offset by other NPT-undermining activities, including the development of enhanced nuclear weapons through arsenal 'modernisation' programmes, and the institutionalising of collaboration on warhead research and sharing of design technologies and facilities between some nuclear-armed states.<sup>14</sup>

47. In addition to the 1957 NATO Communiqué, the United States has concluded bilateral agreements relating to extended nuclear deterrence with a number of states parties to the NPT that acceded as 'non-nuclear'. Some if not all of these include provisions for some level of nuclear-related information exchange, nuclear defence planning and training for nuclear weapons deployments and delivery, the transfer of non-nuclear components for nuclear weapons systems (including for delivery). For five states defined as non-nuclear-weapon states under the NPT, the bilateral agreements include hosting/siting nuclear weapons on their territory, with the consideration that control of these weapons may be transferred in time of war.<sup>15</sup>

48. In NPT and UN contexts over many years, governments that have chosen to give up or never to acquire nuclear weapons capabilities argue that nuclear weapons pose continuous threats to their security through their production, deployment, transporting, proliferation, accident, threat of use, miscalculation and intentional or inadvertent uses.<sup>16</sup>

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<sup>13</sup> George P. Shultz, William J. Perry, Henry A. Kissinger, Sam Nunn, Deterrence in the Age of Nuclear Proliferation: The doctrine of mutual assured destruction is obsolete in the post-Cold War era. *Wall Street Journal*, New York, 7 March, 2011.

<sup>14</sup> Publicly known examples include the 2010 Teutates Treaty between France and the UK, meant to institutionalise nuclear collaboration on warhead research and share design technologies and facilities, and the ongoing nuclear collaboration and missile transfers between the UK and the United States under their much-renewed 1958 Mutual Defence Agreement for Cooperation on the Uses of Atomic Energy for Mutual Defense Purposes. Less is known about collaboration between some of the other nuclear armed states, though much is speculated.

<sup>15</sup> For a recent discussion focussing on one relevant nuclear dependent 'umbrella' state, see Onur Guven and Sico van der Meer, *A treaty banning nuclear weapons and its implications for the Netherlands*, Clingendael Policy Brief, May 2015.

<sup>16</sup> See [www.acronym.org.uk](http://www.acronym.org.uk) for over 20 years of documents and analysis on these meetings and debates.



49. Since 2010, a growing number of non-nuclear governments have been raising concerns about the humanitarian consequences of nuclear weapons and the risks posed by the existence and deployment of nuclear weapons for their own national, regional and international security. Many argue that when a handful of states incorporate reliance on nuclear weapons into their security, deterrence and defence doctrines, they make it harder for others to build their security on alternative diplomatic, legal and political tools for deterring potential adversaries and threats.<sup>17</sup>

## **Security and humanitarian impacts arising from nuclear deterrence**

50. The uncertainties and risks of miscommunication and miscalculation inherent in deterrence are multiplied by nuclear-based deterrence, greatly increasing the costs and risk of any 'deterrence failure'.

51. Incorporating nuclear weapons into deterrence concepts and operations creates unnecessary and potentially grave risks and threats, including from the transporting and deployment of nuclear warheads and weapons systems, miscommunication and miscalculation, and the vulnerability of stockpiles and transported weapons to hostile state or non-state actions.

52. The foreseeable consequence of a nuclear deterrence failure or miscalculation includes the terrible humanitarian consequences that would follow the detonation of one or more nuclear weapons, with likely escalation from one mistaken or intentional nuclear detonation to nuclear 'exchange' and nuclear war, with widespread radioactive contamination and catastrophic global impacts on climate and food production.<sup>18</sup>

53. Advocates of nuclear deterrence tend to treat it as a failsafe insurance policy, as if deterrence is an inherent attribute or property of nuclear weapons. On the contrary, nuclear deterrence may fail. And this risk poses unacceptable humanitarian risks and consequences, far greater than the foreseeable consequences if conventional means of defence and deterrence fail.

54. Equating and relying on nuclear weapons for deterrence has skewed thinking in certain nuclear-armed countries about the objectives, processes and mechanisms involved in effective deterrence. Nuclear deterrence doctrines tend to reduce security, deterrence and defence planning into issues about size, firepower and configurations of nuclear and other military forces. Depending on the country concerned, this leads to military-industrial investment and profiteering to persuade and pressure allies and political leaders into spending money on maintaining, modernising or increasing nuclear arsenals.

55. Concepts of 'necessary' and 'minimum' deterrence have come to mean whatever force configuration and arsenal size that nuclear-armed establishments, militaries and political leaders decide they want to pay for. The smoke and mirrors aspect of deterrence

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<sup>17</sup> See, for example, statements and working papers at successive NPT meetings since 1995, and the papers and proceedings from the three International Conferences on the Humanitarian Impacts of Nuclear Weapons held in Oslo (March 2013), Nayarit, Mexico (February 2014) and Vienna (December 2014), available from the governments of Norway, Mexico and Austria respectively, as well as civil society websites such as [www.icanw.org](http://www.icanw.org), [www.reachingcriticalwill.org](http://www.reachingcriticalwill.org), [www.unidir.org](http://www.unidir.org), [www.ilpi.org](http://www.ilpi.org), and [www.icrc.org](http://www.icrc.org)

<sup>18</sup> See Ira Helfand, "Nuclear Famine: Two Billion People at Risk", IPPNW, 2013 (updated from 2012); Owen B. Toon, Richard P. Turco, Alan Robock, Charles Badeen, Luke Oman and Georgiy L. Stenchikov, "Atmospheric effects and societal consequences of regional scale nuclear conflicts and acts of individual nuclear terrorism"; also Alan Robock, Luke Oman, Georgiy L. Stenchikov, Owen B. Toon, Charles Badeen and Richard P. Turco, "Climate consequences of regional nuclear conflicts", *Atm. Chem. Phys.* 7 (2007).

makes it difficult for other responsible military and political policy-makers to question what they are told about deterrence 'requirements'.

56. Whatever their role might have been in the 20th century, nuclear weapons are practically irrelevant for preventing and dealing with the security challenges of the 21st century. There is a significant risk that they impede and complicate the restructuring of national priorities and international relations necessary for resolving deeper security problems, from climate destruction to conflicts based on cultural, religious, regional or resource rivalries. The prioritising of funds and resources for manufacturing, developing and deploying nuclear weapons has humanitarian and social implications, with a gendered impact that disproportionately harms the lives of women and girls.

57. Driven by special interest groups, doctrines of deterrence have been overly focussed on issues relating to force structures and nuclear operations, such as whether or not to incorporate first use or assured second strike; single, dual or 'triad' nuclear force configurations, hair-trigger or other kinds of alert postures, and whether warhead and delivery systems must be mated, de-mated, continuously-armed, for example 'continuous-at-sea deterrent' (CASD) patrols, forward deployed, dispersed or undetectable, etc. These are much less relevant for real and effective deterrence than their proponents would like policy-makers to believe.

58. Recent geostrategic events and deteriorating relationships are causing military and political leaders in some states to propose that more or different nuclear capabilities are necessary to deter identified and unidentified adversaries. The security implications have therefore become sharper than during the first 20 years after the Cold War ended: the prohibition of nuclear weapons or a reinvigoration of nuclear arsenals and increased salience in military doctrines, with heightened risks of intended or unintended uses of nuclear weapons.

59. The belief that deterrence can be a useful tool for defence is not contested. At issue is whether nuclear weapons are a necessary, useful, viable and legitimate component of deterrence, and whether the foreseeable humanitarian risks and consequences of a failure of nuclear deterrence will be less survivable than the risks and consequences of deterrence failures that do not involve nuclear weapons.

60. Nuclear deterrence cannot be reasonably sustained if the risks and consequences of failure are more catastrophic for human, national and international security than dealing in other ways with the perceived threat that a deterrence posture is meant to address.

61. The central conundrum is that if nuclear weapons are used operationally – actually fired (and cities as well as military targets are generally on war-plans developed in conjunction with doctrines of deterrence) – then deterrence has failed, and the adverse consequences will far outweigh any gains – for everyone.

62. In conjunction with this comes an increased awareness (for some) that incentives and rewards are as (and often more) useful than threats and coercive tools for influencing the behaviour of belligerent adversaries; and that restraint (self denial) is more effective in the long term if states and leaders have made informed choices through educative and reframing approaches rather than being coerced or threatened.

### **Effective legal measures for security without nuclear weapons**

63. This working paper has presented arguments that nuclear deterrence is not a failsafe insurance policy, and that nuclear weapons are not necessary for states to have confidence in exercising deterrence as part of their security policies. For many decades, nuclear

deterrence doctrines have proved to be a major factor in driving horizontal and vertical proliferation and impeding nuclear arms reductions and disarmament.

64. Recognising that the use of nuclear weapons for deterrence does not affect the probability of failure at some point in the future, the foreseeable consequences of such a failure is likely to be far more widespread and terrible than failure of other means of deterrence, and would likely result in the detonation of one or more nuclear weapons, with catastrophic humanitarian impacts.

65. At the first session of the Open-ended Working Group on Taking forward multilateral nuclear disarmament negotiations, held in Geneva on 22-23 February 2016, Acronym Institute director Dr Rebecca Johnson identified five possible pathways for making progress on multilateral nuclear disarmament:

(a) efforts to encourage progress on long-standing commitments ('steps' or 'building blocks') for unilateral, bilateral, plurilateral and multilateral actions, with emphasis on encouraging fulfillment of the action points that have been identified and agreed by NPT states parties in 1995, 2000 and 2010;

(b) a new, next-step 'nuclear ban treaty' (NBT) under international humanitarian law that would inter alia prohibit the use, deployment, development, manufacture, stockpiling, possession, and related activities, and require (but not negotiate detailed mechanisms for) their complete elimination, intended to reinforce the NPT and CTBT and contribute to International Humanitarian Law;

(c) a framework convention or framework of separate mutually reinforcing instruments, such as proposed by the UN Secretary-General in 2008;

(d) bringing further nuclear-weapon free zones (NWFZ) into force;

(e) a fully comprehensive nuclear weapons convention (NWC), such as the model NWC developed by NGOs in the 1990s, an updated version of which was circulated by Malaysia and Costa Rica to the UN General Assembly in 2007.<sup>19</sup>

66. This working paper from the Acronym Institute endorses the recognition by many representatives of governments and civil society, that these pathways are not mutually exclusive, did not require linear sequencing, and should be treated as mutually reinforcing pathways to the longer term goal of attaining and maintaining peace and security in a world without nuclear weapons.

67. In the OEWG discussions in February 2016, it was underlined that a legal measure cannot be effective if it doesn't get negotiated. When considering these five candidate pathways, there needs to be analysis of the strategies and conditions that would be necessary for each proposal to be successfully negotiated and achieved in the present geopolitical, structural and diplomatic environment.

68. This assessment requires a realistic and forward-looking analysis of geostrategic, political and diplomatic conditions, taking into account potential obstacles and ways round them. The analysis needs to include: consideration of existing and potential fora and mechanisms to undertake, negotiate, conclude and implement the required measures; which

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<sup>19</sup> "Effective legal measures: Possible pathways towards a nuclear-weapon-free world" Working Paper and notes for Presentation by Rebecca Johnson, director of the Acronym Institute for Disarmament Diplomacy, in Panel I on 'substantively addressing concrete effective legal measures, legal provisions and norms that will need to be concluded to attain and maintain a world without nuclear weapons', Open-ended Working Group on Taking forward multilateral nuclear disarmament negotiations, Palais des Nations, Geneva, 22 February 2016.

approach is most likely to influence and affect (directly or indirectly) the nuclear armed states' behaviour, including their perceived benefits and reliance on the doctrines and policies they have put in place for nuclear deterrence and use; the intended and foreseeable role and relationship of different measures with the desired goal, timing and pathways, as well as the likely interaction between different measures that could accelerate or impede progress; the power and roles of different stakeholders, for example, nuclear-armed states and their nuclear-dependent allies, nuclear free states, domestic and transnational civil society actors, and the roles these stakeholders currently play. The OEWG also needs to consider how these factors may change as a process of negotiations gets underway, taking into account issues of security, humanitarian impacts and risks of failing to make effective progress.

69. The refusal of various nuclear-armed states to participate as invited UN Member States in the Open-ended Working Group on Taking forward multilateral nuclear disarmament negotiations, as well as the 20-year impasse in the Conference on Disarmament, which has been regrettably facilitated by its veto-based rule of consensus, indicate that over 70 years after the first detonations and uses of nuclear weapons, nuclear-armed states are hiding behind structural vetoes.

70. It appears from this that as long as nuclear-armed states and their allies uphold the primacy of nuclear deterrence doctrines and operations in their defence policies, they will seek to delay indefinitely most if not all practical next steps and effective legal measures and pathways for nuclear disarmament. Their postures do not mean they should continue to be facilitated to prevent and obstruct multilateral nuclear disarmament negotiations.

71. Taking this into account and drawing lessons from the past 70 years of proliferation, as well as arms control and disarmament efforts, the most viable and practical legal measure for UN Member States to pursue as a near-term next step will be a nuclear ban treaty that will prohibit activities associated with using and preparing to use nuclear weapons.

72. Until the hold of nuclear deterrence doctrines on the defence policies of certain governments is lessened, the only practical way to make progress on multilateral nuclear disarmament negotiations is in a multilateral forum that is open to all and blockable by none. Such a forum should invite and engage with nuclear armed states and remain open to them to join negotiations as they progress, even if they do not participate at the beginning. Rules of procedure should treat all states as equal and provide no states with a veto to block procedural or substantive decisions. Concluded treaties, instruments or agreements should be presented to the UN General Assembly for adoption before being opened to signature. Governments will then determine on the basis of their own considerations whether and when to sign, ratify and accede to the agreements, subject to their domestic processes and will of their people.

73. As noted in academic discourse, the role of civil society is vital when states seek to take any significant measures from wishlist to negotiating forum.<sup>20</sup>

74. The very process of starting and conducting negotiations often open up new ways to view what is possible and achievable. Multilateral treaties do not have to be comprehensive; they may be partial, as with the Partial Test Ban Treaty (PTBT) or limited in scope, as with fissile material ban proposals. Initial steps, such as the proposed nuclear ban treaty, are likely to change the calculus of nuclear weapons decision-making in the nuclear armed and

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<sup>20</sup> For example, Rebecca Johnson, *Unfinished Business: The negotiation of the CTBT and the end of nuclear testing* (UNIDIR 2009); and Mordechai Melamud, Paul Meerts, and I. William Zartman (eds.), *Banning the Bang or the Bomb?* (CUP, 2014).

nuclear dependent states, and would be likely to kickstart other progressive approaches and lead to further processes that integrate comprehensive and incremental measures.

75. A multilaterally negotiated, globally applicable and non-discriminatory nuclear prohibition treaty banning the use, deployment, production, possession, transporting, testing and stockpiling of nuclear weapons, underscoring also the requirement to accomplish the total elimination of nuclear weapons appears to be the most viable next step, and would constitute an important and desirable tool for legal and political deterrence in the future.

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