

## THE NUCLEAR ORDER UNDER STRESS• ∞

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*The arms race, particularly in its nuclear aspect, runs counter to efforts to achieve further relaxation of international tension, to establish international relations based on peaceful coexistence and trust between all States, and to develop broad international co-operation and understanding.*

(Final Document, United Nations General Assembly First Special Session on Disarmament, 1978)

### ABSTRACT

*The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) has been labelled the cornerstone of the global nuclear non-proliferation regime and an essential foundation for the pursuit of nuclear disarmament<sup>1</sup>. However, through its reaffirmation of the inalienable right to peaceful uses of nuclear energy, the treaty encompasses the main elements of the nuclear phenomenon, the most pressing ones being the need to rid humanity of nuclear weapons while preventing the emergence of new nuclear-armed states. As such, the NPT constitutes a beacon for the advancement of international peace and security<sup>2</sup> understood not just as the mere absence of war and conflict, but an underlying global condition enabling cooperation for the economic, social and cultural development of humankind<sup>3</sup>. Disturbingly, the deterioration of the international political environment due to great -and regional- power competition and the increased pugnacity displayed by*

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- This article was conceived and developed before the Russian invasion of Ukraine. This act of aggression has had multiple consequences, including in the nuclear dimension due to Moscow's threat of escalation. The threat stems from the enhanced level of nuclear alert and preparedness ordered by President Vladimir Putin. Consequently, the author has tried to incorporate this new and substantial fact in the lines of analysis and political/diplomatic formulations originally intended. In fact, he is convinced that the spectre of a nuclear exchange awakened by the Kremlin's nuclear rhetoric should impel the international community to double-down in its efforts to conjure nuclear dangers.

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1 United Nations, Website of the Office for Disarmament Affairs: Entry page for the NPT [Treaty on the Non-Proliferation of Nuclear Weapons \(NPT\) – UNODA](#)

2 United Nations Charter, Article 1, number 1.

3 Ibid, Article 1, number 3.

*some states to pursue their national interests have raised the risk of nuclear confrontation and increased the danger of further nuclear and conventional proliferation, putting the nuclear order at risk. We posit that such risk and dangers require diplomatic action from non-nuclear weapon states (NNWS) concerting efforts in every multilateral fora but, particularly, the United Nations.*

**Key words:** Nuclear non-proliferation; nuclear disarmament; nuclear risk; multilateral diplomacy.

## EL ORDEN NUCLEAR BAJO ESTRÉS

### RESUMEN

*El Tratado sobre la no proliferación de las armas nucleares (TNP) ha sido calificado como la piedra angular del régimen mundial de no proliferación nuclear y una base esencial para la búsqueda del desarme nuclear. Sin embargo, mediante su reafirmación del derecho inalienable a los usos pacíficos de la energía nuclear, el tratado abarca los principales elementos del fenómeno nuclear, siendo los más apremiantes la necesidad de librar a la humanidad de las armas nucleares mientras se previene el surgimiento de nuevos estados con armas nucleares. Como tal, el TNP constituye un faro para el avance de la paz y la seguridad internacionales entendidas no solo como la mera ausencia de guerra y conflicto, sino como una condición global subyacente que permite la cooperación para el desarrollo económico, social y cultural de la humanidad. De manera inquietante, el deterioro del entorno político internacional debido a la competencia entre grandes -y regionales- potencias y la creciente pugnacidad mostrada por algunos estados para perseguir sus intereses nacionales han aumentado el riesgo de confrontación nuclear y aumentado el peligro de una mayor proliferación nuclear y convencional, poniendo el orden nuclear en peligro. Postulamos que tales riesgos y peligros requieren una acción diplomática de los estados que no poseen armas nucleares (NNWS) y esfuerzos concertados en todos los foros multilaterales, pero, en particular, en las Naciones Unidas.*

**Palabras clave:** No proliferación nuclear; desarme nuclear; riesgo nuclear; diplomacia multilateral.

## A ORDEM NUCLEAR SOB ESTRESSE

### RESUMO

*O Tratado de Não-Proliferação de Armas Nucleares (TNP) foi rotulado como a pedra angular do regime global de não-proliferação nuclear e uma base essencial para a busca do desarmamento nuclear. ener-*

*gia, o tratado abrange os principais elementos do fenômeno nuclear, sendo os mais prementes a necessidade de livrar a humanidade das armas nucleares, evitando o surgimento de novos estados com armas nucleares. Como tal, o TNP constitui um farol para o avanço da paz e segurança internacional entendida não apenas como a mera ausência de guerra e conflito, mas uma condição global subjacente que permite a cooperação para o desenvolvimento econômico, social e cultural da humanidade. Perturbadoramente, a deterioração do ambiente político internacional devido à grande competição de poder - e regional - e a crescente luta por alguns Estados para perseguir seus interesses nacionais aumentaram o risco de confronto nuclear e aumentaram o perigo de uma maior proliferação nuclear e convencional, colocando a ordem nuclear em risco. Postulamos que tais riscos e perigos exigem ação diplomática dos Estados não-armas nucleares (NNWS) concertando esforços em todos os fóruns multilaterais, mas, particularmente, nas Nações Unidas.*

**Palavras-chave:** Não proliferação nuclear; desarmamento nuclear; risco nuclear; diplomacia multilateral.

## Introduction

When last December Omicron, the latest variant of the COVID-19 virus triggered a further postponement of the **Tenth Review Conference of the Treaty on the Non-proliferation of Nuclear Weapons** (NPT), programmed to take place at the United Nations headquarters in New York city in January, 2022 and now forecast for August this year, some voices suggested that this new delay –the third, so far– could have *unintended good consequences*<sup>4</sup>. Originally, the X Review Conference should have taken place in april 2020, on the 50<sup>th</sup> anniversary of a Treaty generally regarded as the corner stone of the global nuclear non-proliferation and disarmament regime. Unfortunately, the pandemic not only imposed the first rescheduling of the NPT Review Conference but intensified the confrontation between Beijing and Washington, further exacerbating an already tense international security environment. In the intervening months, tensions over Taiwan and the Ukraine -today under assault from the Russian Federation- have raised the spectre of conflict amongst great powers, including nuclear escalation<sup>5 6 7</sup>.

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- 4 KWONG, Jamie. “Rescuing a fraying non-proliferation regime”, Carnegie Endowment for International Peace, january 13, 2022. [Rescuing a Fraying Nuclear Nonproliferation Regime - Carnegie Endowment for International Peace](#)
  - 5 BRANDS, Hal and BECKLEY, Michael. “Washington Is Preparing for the Wrong War With China: A Conflict Would Be Long and Messy”. Foreign Affairs, december 16, 2021. [Washington Is Preparing for the Wrong War With China | Foreign Affairs](#)
  - 6 TERTRAIS, Bruno. “China crosses the Rubicon: a scenario for war over Taiwan”, Fondation pour la recherche stratégique, Paris, october 22, 2021. [202137.pdf \(frstrategie.org\)](#)
  - 7 ERATH, John. “In Ukraine, Putin tries his hand at nuclear blackmail...” The Bulletin of the Atomic Scientists”, december 17, 2021. [In Ukraine, Putin tries his hand at nuclear blackmail. Here are seven ways to thwart him. - Bulletin of the Atomic Scientists \(thebulletin.org\)](#)

The extra time provided by the latest postponement could help NPT State Parties to address some of their divisions over priorities<sup>8</sup>. In particular, the non-nuclear Weapon State Parties (NNWS), that relinquished their right to develop and possess nuclear arms pursuant to Articles I – III of the Treaty remain deeply unsatisfied by the lack of progress in the fulfilment of Article VI, providing for *negotiations in good faith on effective measures relating to the cessation of the nuclear arms race at an early date and to nuclear disarmament under strict and effective international control*<sup>9</sup>.

Article VI contains the nuclear disarmament pillar of the NPT's grand bargain, the other two pillars being non- proliferation (Articles I – III) and peaceful uses of nuclear energy (Article IV).

At the time of the Non-Proliferation Treaty's inception, during the Cold War, the acquisition of nuclear weapons was a national security option seriously considered by several countries<sup>10</sup>, including some deeply involved in current nuclear disarmament efforts, like Sweden<sup>11</sup>. The NPT -opened to signature in 1968 and entered into force in March, 1970- effectively stalled military nuclear programmes, but important States remained outside its framework, notably India, Pakistan, and Israel (all of them later developing nuclear arsenals). Eventually, North Korea -originally an NPT State Party- would also follow the nuclear path, motivated by imperatives of deterrence but chiefly regime preservation. These four states are nuclear weapon possessors but are not *recognised* as such by the NPT community<sup>12</sup>.

**An ongoing nuclear expansion.** Thirty years after the end of the Cold War, the non-proliferation regime is under stress.

The disarmament component of the NPT's grand bargain is in jeopardy, among other reasons because all the nuclear weapon State Parties (NWS) recognised by the NPT<sup>13</sup>: China, France, the Russian Federation, the United Kingdom and the United States (coincidentally, the United Nations Security Council permanent members, or P-5) are actively implementing modernisation and expansion nuclear programmes, comprising warheads,

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8 KWONG, Jamie. Loc. Cit.

9 Treaty on the Non Proliferation of Nuclear Weapons, Article VI. United Nations Office for Disarmament Affairs [Treaty on the Non-Proliferation of Nuclear Weapons \(NPT\) – UNODA](#)

10 In the third presidential debate of the Kennedy-Nixon 1960's campaign, Senator (later) President John F. Kennedy affirmed: "There are indications because of new inventions, *that 10, 15, or 20 nations will have a nuclear capacity, including Red China, by the end of the Presidential office in 1964.* This is extremely serious. . . I think the fate not only of our own civilization, but I think the fate of world and the future of the human race, is involved in preventing a nuclear war." (our italics) [JFK on Nuclear Weapons and Non-Proliferation - Carnegie Endowment for International Peace](#)

11 SUCIU, Peter. "Sweden: Armed with Nuclear Weapons? It Could Have Happened". The National Interest, april 27, 2020. [Sweden: Armed with Nuclear Weapons? It Could Have Happened. | The National Interest](#)

12 As of January, 2022, the Treaty for the Non-Proliferation of Nuclear Weapons comprise 191 State Parties, thus being one of the most universal instruments in the world order.

13 Article IX, number 3 states that: *For the purposes of this Treaty, a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967.*

delivery systems<sup>14</sup> (or vehicles) and ancillary systems (related, among others, to command, control, communications and intelligence, or C3I). In its latest Yearbook, the respected Stockholm International Peace Research Institute (SIPRI), posits that global reductions in the number of operational warheads, originated in the dismantling of retired warheads – undertaken mainly by Russia and the United States– seem to be diminishing and warhead numbers could be rising again. The United States and Russia *have extensive and expensive programmes under way to replace and modernize their nuclear warheads, missile and aircraft delivery systems, and nuclear weapon production facilities. The nuclear arsenals of the other nuclear-armed states are considerably smaller, but all are either developing or deploying new weapon systems or have announced their intention to do so*<sup>15</sup>.

And all this, at an enormous cost, as denounced by the Center for International Policy:

The Pentagon and the Department of Energy are ramping up at three-decades-long plan to build a new generation of nuclear-armed bombers, submarines and missiles, along with new warheads to go with them. The price tag for operating existing weapons and building new ones could reach a staggering US\$2 trillion. The Congressional Budget Office (CBO) has estimated that in the next decade alone, the cost of nuclear weapons deployment, development, and procurement could reach US\$634 billion. The major beneficiaries of these expenditures will be the prime contractors for new nuclear delivery vehicles and the operators of the National Nuclear Security Administration’s (NNSA) nuclear weapons complex<sup>16</sup>. (Our underlining).

Nuclear proliferation has two dimensions: **horizontal**, meaning an increase in the number of states possessing nuclear weapons and **vertical**, signifying quantitative and/or qualitative growth of nuclear weapons capabilities by the NWS themselves.

According to the Arms Control Association, a U.S. think tank, vertical proliferation has increased tensions among the world’s nuclear-armed states and as a result *the risk of nuclear use is growing, and hundreds of billions of dollars are being spent to replace and upgrade nuclear arsenals. To varying degrees, the nuclear-armed states are engaged in a qualitative arms race*<sup>17</sup>. (Note the use of “nuclear-armed states”, to include not just the nuclear weapon states recognised by the NPT but also the four nuclear weapon possessors mentioned above, who are also pursuing nuclear upgrading). It is obvious that these ver-

14 *Delivery systems propel or transport munitions to their targets. They are an integral part of most weapon systems...* TULLIU, Steve and SCHMALBERGER, Thomas. *Coming to terms with security: a Lexicon for Arms Control, Disarmament and Confidence-Building*, UNIDIR (United Nations Institute for Disarmament Research), Geneva, 2003.

15 SIPRI Yearbook 2021. *Armaments, Disarmament and International Security*, Chapter 10. *World nuclear forces. Overview*. [SIPRI Yearbook 2021, Chapter 10, World Nuclear Forces](#)

16 HARTUNG, William. *Profiteers of Armageddon: Producers of the next generation of nuclear weapons*. Center for International Policy, Issue Brief, October 2021, Washington, D.C. [3ba8a1\\_3ad999bcc8f-f4a289f985db52bb88196.pdf \(usfiles.com\)](#)

17 KIMBALL, Daryll G. “Towards a successful NPT Review Conference”, *Arms Control Today*, November 2021. [Toward a Successful NPT Review | Arms Control Association](#)

tical proliferation endeavours radically contradict the expectations of the vast majority of NPT State Parties, observing their nonproliferation obligations under the Treaty.

Sadly, the rationale for these onerous programmes lies upon the very existence of nuclear weapons. Addressing China's accelerated nuclear expansion and the response such developments impose on U.S. nuclear policies Ambassador (Ret.) Rose Gottemoeller, former Under Secretary of State and Assistant Secretary of State for Arms Control re-affirmed that the U.S. must not *fail to modernize our nuclear forces. The program of record for nuclear modernization first put in place by President Obama continued to develop momentum during the Trump presidency, as we began to exchange new weapon systems for old. (...) It still true that, for as long nuclear weapons exist, the United States must maintain a safe, secure and effective nuclear arsenal*<sup>18</sup>. This is also the position maintained by NATO, as reaffirmed in the July, 2021 Brussels Summit: *40. Allies' goal is to continue to bolster deterrence as a core element of our collective defence and to contribute to the indivisible security of the Alliance. As long as nuclear weapons exist, NATO will remain a nuclear alliance*<sup>19</sup>. (My underlining).

The perverse dynamics of nuclear competition was perfectly understood by the NPT negotiators. Preambular paragraphs eight and eleven make it explicit the Parties *intention to achieve at the earliest possible date the cessation of the nuclear arms race and to undertake effective measures in the direction of nuclear disarmament PP8), and their willingness to further the easing of international tension and the strengthening of trust between States in order to facilitate the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery... (PP11). From the Treaty's text flows the unassailable conclusion that the remedy to the inherent, existential danger posed by nuclear weapons to humanity is their complete elimination.*

Amongst all NWS, **China** is considered to be the one expanding its nuclear forces at an unprecedented speed. Tong Zhao, a senior fellow in the Nuclear Policy Program at the Carnegie Endowment for International Peace, based in Beijing explained it in these terms, last August:

China's nuclear arsenal appears to be expanding substantially for the first time in years. Over the past few decades China had maintained only about 20 silo-based intercontinental ballistic missiles (ICBM's). But recent evidence from independent U.S. experts shows that the country is likely constructing more than 200 new missile silos. China's current programme to modernize and update its nuclear weapons is moving at an unprecedented speed and scale. This expansion is poised to change China's traditionally small and mostly land-based arsenal across the board. Besides silo-based ICBMs China also is building more

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18 GOTTEMOELLER, Rose. "China's nuclear build-up: The great distraction", The Hill, September 13, 2021. [China's nuclear build-up: The great distraction | TheHill](#)

19 North Atlantic Treaty Organization (NATO). "Brussels Summit Communiqué Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Brussels 14 June 2021". [NATO - News\\_Brussels Summit Communiqué.pdf](#)

road-mobile ICBMs and strategic nuclear submarines, even as it introduces air-based nuclear capabilities<sup>20</sup>.

This view is supported by other sources and experts, including SIPRI<sup>21 22</sup>.

For the U.S. Department of Defense: *(t)he accelerating pace of the PRC's nuclear expansion may enable the PRC to have up to 700 deliverable nuclear warheads by 2027. The PRC likely intends to have at least 1,000 warheads by 2030, exceeding the pace and size the DoD projected in 2020*<sup>23</sup>. Such an expansion would entail the quadrupling of China's nuclear warhead stockpile by 2030. Suitably, the number of delivery systems in China's inventory is also increasing in all categories: 50% in intercontinental ballistic missiles (ICBMs) and intermediate-range ballistic missiles (IRBMs), 66% in short-range ballistic missiles (SRBMs) and 300% in medium-range ballistic missiles (MRBMs)<sup>24</sup>.

One particular development eliciting the attention of security analysts in the U.S. and the world was the testing by China of a presumed hypersonic, fractional orbital bombardment system (FOBS), last August. The impression created by this test moved General Mark A. Milley, Chairman of the Joint Chiefs of Staff, to consider it *very close to a Sputnik moment* (recalling the shock in the U.S. public after the successful launching of the first Soviet satellite, in 1957). FOBS are not new, the Soviet Union deployed it (the R-360 ballistic missile system) during the Cold War<sup>25</sup>, their purpose being to avoid U.S. defences designed to intercept incoming ballistic missiles. Such feat would be achieved by launching the intercontinental missiles to follow a trajectory over the South Pole, thus approaching the continental U.S. from an unexpected direction. Since U.S. early warning radars and defences were facing north, *the route that Soviet ICBMs would have taken*, North American defences (comprising both U.S. and Canada, prominent member of NATO) would be taken by surprise<sup>26</sup>.

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- 20 ZHAO, Tong. What's driving China's nuclear buildup?, Carnegie Endowment for International Peace, august 5, 2021. [What's Driving China's Nuclear Buildup? - Carnegie Endowment for International Peace](#)
- 21 SIPRI. Loc. Cit. *China is in the middle of a significant modernization and expansion of its nuclear arsenal and India and Pakistan also appear to be increasing the size of their nuclear weapon inventories.*
- 22 DENMARK, Abraham and TALMADGE, Caitlin. Why China wants more and better nukes: How Beijing's nuclear build-up threatens stability. Foreign Affairs, november 19, 2021 [Why China Wants More and Better Nukes | Foreign Affairs](#)
- 23 United States office of the Secretary of Defense, Military and security developments involving the People's Republic of China, 2021, p. VIII, [DOD 2021 Report on Military and Security Developments Involving the People's Republic of China \(defense.gov\)](#)
- 24 CHILDS, Nick and WALDWYN, Tom. "Pentagon report claims Chinese nuclear expansion and conventional improvements", International Institute for Security Studies (IISS), London, Military Blog, november 12, 2021. [Pentagon report claims Chinese nuclear expansion and conventional improvements \(iiss.org\)](#)
- 25 WRIGHT, Timothy. "Is China gliding to a FOBS capability?", IISS (International Institute of Strategic Studies) Analysis, october 22, 2021 [Is China gliding toward a FOBS capability? \(iiss.org\)](#)
- 26 LEWIS, Jeffrey. "China's orbital bombardment system is big, bad news -but not a breakthrough: An attempt to evade missile defenses threatens to worsen a costly arms race", Foreign Policy, october 19, 2021. [China's Hypersonic Orbital Weapon Is Scary but Not New \(foreignpolicy.com\)](#) Jeffrey Lewis is a reputed specialist, working at the James Martin Center for Nonproliferation Studies at the Middlebury Institute of International Studies at Monterey, California; his article contains a succinct yet deep presentation of FOBS aimed at preventing an arms race.

Tong Zhao returned to the issue of China's nuclear build-up in an op-ed published by *The New York Times* last November, explaining such unprecedented nuclear expansion in President's Xi Jinping's *deepening concern that China's inferior nuclear capability could embolden U.S. hostility and undermine Beijing's rise at a critical moment in great power competition*. China, in this view, is attempting to force Washington to *drop the perceived strategic assault and accept a "mutual vulnerability" relationship- in which neither country would have the capability or will to threaten nuclear war without risking its own destruction*<sup>27</sup>.

Formulated in such terms, nuclear "mutual vulnerability" strongly resembles nuclear deterrence, the central element of strategic stability during the Cold War.

**Nuclear deterrence** has been defined by the UN Institute for Disarmament Research as the *(t)hreat of use of nuclear weapons to dissuade armed (usually nuclear) attack*<sup>28</sup>. *Nuclear deterrence is the objective of both countervalue and counterforce doctrines. The concept emerged in the United States in the late 1940s as a response to the perceived threat posed by Soviet conventional forces initially, and conventional and nuclear forces subsequently.*

Countervalue is defined as the *(n)uclear doctrine that provides for the retaliatory use of nuclear weapons to destroy or severely incapacitate an adversary's population and industrial centres. It aims to achieve nuclear deterrence by promising to punish any nuclear (or possibly other kinds of) attack with a devastating response. Within the context of two nuclear armed States, it requires a second-strike capability*<sup>29</sup>. Counterforce, in its turn, limits the retaliatory use of nuclear weapons to *destroy or significantly impair an adversary's nuclear forces and related facilities (rather than population or industrial centers)*<sup>30</sup>. It seems clear, however, that the immense destructive power of nuclear weapons make collateral damage -harming non-combatants and civilian infrastructure- almost inevitable, particularly when military facilities under nuclear attack are located in the proximity of urban centres. Furthermore, nuclear explosions generate environmental damage, affecting wide geographical areas<sup>31</sup>.

A key factor in the nuclear deterrence construct is the "second-strike capability", which presupposes that each contender retains enough nuclear strategic weapons to deliver a devastating retaliatory blow after suffering a nuclear "first-strike". It is the certainty -in the sense of subjective certitude- shared by each contender that they retain such (surviving) retaliatory capability and the determination to use it, that keeps strategic stability. Conversely, every development impairing the "second strike capability", such as missile

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27 ZHAO, Tong, "Why is China building-up its nuclear arsenal?", *The New York Times*, november 15, 2021 [Opinion | The U.S. and China Need to Talk About Mutual Nuclear Vulnerability - The New York Times \(ny-times.com\)](https://www.nytimes.com/opinion/2021/11/15/why-is-china-building-up-its-nuclear-arsenal/)

28 TULLIU, Steve and SCHMALBERGER, Thomas. Op. Cit. p. 109.

29 Ibid. p. 105.

30 Ibid.

31 ICRC (International Committee of the Red Cross). "Humanitarian impacts and risks of use of nuclear weapons", august 29, 2020. ICRC web portal. [Humanitarian impacts and risks of use of nuclear weapons ICRC.pdf](https://www.icrc.org/eng/resources/documents/publication/20200829-humanitarian-impacts-and-risks-of-use-of-nuclear-weapons.pdf)



defences, debilitates strategic stability<sup>32</sup>. This kind of “stability” –basically, a nuclear stalemate that lessens the probability of war– reminds Winston Churchill’s words about nuclear deterrence in his last speech before relinquishing the premiership, in March 1955, when he told the House of Commons that if both Cold War blocs enjoyed comparable levels of destructive capacity, then by a “*sublime irony...safety will be the sturdy child of terror, and survival the twin brother of annihilation*”. The same -black- irony permeates the notion of *mutual assured destruction*, or MAD.

China has already reached the level of nuclear development providing her with a second-strike capacity. Harvard Professor Graham Allison –a forefront scholar in the great power competition between Washington and Beijing– asserts that *(t)oday China has also developed a nuclear arsenal so robust that it creates a 21st century version of MAD with the United States. (...) The central implication for U.S. strategy towards China from the U.S.-Soviet competition is therefore as uncomfortable to accept as it is impossible to deny: once two states have invulnerable nuclear arsenals, hot war is no longer a justifiable option. Both nations must integrate this brute fact in their foreign policies*<sup>33</sup> (my underlining).

Accordingly, the White House is now actively trying to engage China in a nuclear/strategic stability dialogue. The idea is to address nuclear capabilities focusing first on the avoidance of accidental conflict; second, a better understanding of each other’s nuclear doctrine and, finally the need to prevent the escalatory consequences of attacks in cyberspace and outer space (aimed at neutralizing C3I capabilities):

The United States has no nuclear hotline to Beijing. The two countries have never had an in-depth, serious conversation about American missile defenses in the Pacific, or China’s experiments to blind U.S. satellites in time of conflict. (...) And Chinese officials have consistently rejected the idea of entering arms control talks, shutting down such suggestions by noting –accurately– that the United States and Russia each have deployed five times more nuclear warheads than Beijing possesses. (...) President Biden is seeking to change all that.

President Biden’s aides are driven by concern that a new arms race is heating up over hypersonic weapons, space arms and cyberweapons, all of which could unleash a costly and destabilizing spiral of move and countermove. The fear is that an attack that blinded space satellites or command-and-control systems could quickly escalate, in ways that were not imaginable in the nuclear competitions of the Cold War. China’s capabilities could also pose a threat to President Biden’s hopes

32 LABBÉ, Alfredo. “Revitalizando el multilateralismo para contener los riesgos nucleares”, Stimson Center, august 2019. [REVITALIZANDO EL MULTILATERALISMO PARA CONTENER LOS RIESGOS NUCLEARE. pdf \(stimson.org\)](https://www.stimson.org/revitalizando-el-multilateralismo-para-contener-los-riesgos-nucleares)

33 ALLISON, Graham. “Destined for war: can America and China escape Thucydides’s trap?”, Houghton Mifflin Harcourt, Boston – New York, 2017, p. 208.

of reducing the role of nuclear weapons in American defenses<sup>34</sup>. (My underlining).

A wider dialogue amongst the major nuclear powers is essential to restore not only strategic stability in their bilateral relations but to lower the temperature in a heated confrontation encompassing the West and China, but also Russia and the West. Those concomitant confrontations enervate international security and preclude much needed cooperation to tackle global threats such as climate change or the COVID pandemic. An important positive outcome from the June 2021, Geneva summit between Presidents Biden and Putin was the launching of much needed strategic stability conversations, (which have been indefinitely suspended after the invasion of Ukraine).

The brief Presidential Joint Statement released in last June captured the gravity of the problem at hand:

We (...) note the United States and Russia have demonstrated that, even in periods of tension, they are able to make progress on our shared goals of ensuring predictability in the strategic sphere, reducing the risk of armed conflicts and the threat of nuclear war. (...) The recent extension of the New START Treaty exemplifies our commitment to nuclear arms control. (...) Today, we **reaffirm the principle that a nuclear war cannot be won and must never be fought**. Consistent with these goals, the United States and Russia will embark together on an integrated bilateral Strategic Stability Dialogue in the near future that will be deliberate and robust. (...) Through this Dialogue, we seek to lay the groundwork for future arms control and risk reduction measures. (My emphasis and underlining).

Perhaps the most significant point in the U.S.–Russian Joint Statement<sup>35</sup> is the re-affirmation of the principle that *a nuclear war cannot be won and must never be fought*. Such principle (more a grim statement of fact, really) was formulated in 1985 by Ronald Reagan and Mikhail Gorbachev at their summit in Geneva, amidst renewed nuclear tension over strategic forces but, particularly, the deployment of intermediate-range ballistic missiles in Europe and the Strategic Defense Initiative. The latter was the signature Reagan Administration defensive system memorably labelled “Star Wars”, conceived around the development of a futuristic anti-ballistic missile defence, comprising ground and space-based detection and interceptor systems, capable of neutralizing a massive Soviet first strike. The Reagan – Gorbachev summit marked a positive turning point in U.S.–USSR relations, leading to an effective ease of tensions marked by the successful negotiation of the 1987 INF treaty, which eliminated all Intermediate-Range Ballistic Missiles and cruise missiles with a range from 500 to 5.500 kilometres (but scrapped by the Trump Administration in 2019).

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34 SANGER, David E. and BROAD, William, “As China speeds up nuclear arms race, the U.S. wants to talk”, The New York Times, november 28, 2021. [As China Speeds Up Nuclear Arms Race, the U.S. Wants to Talk - The New York Times \(nytimes.com\)](https://www.nytimes.com/2021/11/28/us/politics/as-china-speeds-up-nuclear-arms-race-the-u-s-wants-to-talk.html)

35 THE WHITE HOUSE Briefing Room. “U.S- - Russia Joint Statement on Strategic Stability”, june 16, 2021. [U.S.-Russia Presidential Joint Statement on Strategic Stability | The White House](https://www.whitehouse.gov/briefing-rooms/2021/06/16/us-russia-joint-statement-on-strategic-stability/)

While some critical analysts pointed to the reaffirmation of the principle as a minimal agreement (*the only agreement the United States and Russia were able to reach at this point*), others see it as a minimal *first step* toward further, concrete measures<sup>36</sup>. This approach is substantiated by the third paragraph, announcing *an integrated bilateral Strategic Stability Dialogue (...) that will be deliberate and robust*. Moreover, such dialogue seeks to *lay the ground for future arms control and risk reduction measures*.

On the contrary, the November 16, 2021 virtual summit between China's and U.S.' leaders raised only mild expectations of a comparable level of engagement in spite of President's Biden suggestion for strategic stability talks. This move was described by the White House as a *tentative first effort toward a far larger agenda*, similar to the nuclear weapons dialogue initiated by the Soviet Union and the United States in the 1950', at the dawn of the Cold War. This effort seeks to avoid miscommunication and accidental war (any kind of war) and is consistent with the U.S. call to develop "guardrails" –or "rules of the road" – along the great power competition<sup>37</sup>.

In Tong Zhao's view, a mutual Beijing - Washington commitment to the principle that a nuclear war cannot be won and must never be fought would be welcome, insofar as it *would help stabilize the most important bilateral relationship in the world* (and, also) *give Beijing reassurance that the United States was willing to accept peaceful coexistence and refrain from challenging China's core interests. (Within reason). (...) Reducing the threat of nuclear holocaust also could open opportunities for substantive arms control negotiations on new missile systems and counter-space weapons*<sup>38</sup>. It remains to be seen if the U.S. could accommodate every Chinese "core interest", but dialogue is crucially important.

The ratification of the Reagan – Gorbachev principle came only in January 3 -a kind of New Year's resolution- and not only in the context of Sino-American engagement but from all the "P-5's", the first time they embraced it collectively. In a Joint Statement the Leaders of the five Nuclear-Weapon States committed to prevent nuclear war, avoid arms races, prevent further nuclear proliferation and address "nuclear threats", including the unauthorized or accidental use of nuclear weapons<sup>39</sup>:

We affirm that a nuclear war cannot be won and must never be fought.  
 (...) nuclear weapons—for as long as they continue to exist—should serve defensive purposes, deter aggression, and prevent war. We believe strongly that the further spread of such weapons must be prevented.

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- 36 TOSAKI, Hirofumi. "Joint Statement on Strategic Stability: managing the U.S.-Russia relationship under strategic competition", The Japan Institute of International Affairs, JIIA Strategic Comments, July 21, 2021. [ENG\\_strategic\\_comment\\_Tosaki.pdf \(jia.or.jp\)](#)
- 37 SANGER, David E. and BROAD, William J. Loc. Cit.
- 38 ZHAO, Tong. "Why is China building-up its nuclear arsenal?", The New York Times, November 15, 2021. [Opinion | The U.S. and China Need to Talk About Mutual Nuclear Vulnerability - The New York Times \(ny-times.com\)](#)
- 39 THE WHITE HOUSE. Briefing Room, January 3, 2022. [Joint Statement of the Leaders of the Five Nuclear-Weapon States on Preventing Nuclear War and Avoiding Arms Races | The White House](#)

We reaffirm the importance of addressing nuclear threats (...). We remain committed to our Nuclear Non-Proliferation Treaty (NPT) obligations, including our Article VI obligation (...). We each intend to maintain and further strengthen our national measures to prevent unauthorized or unintended use of nuclear weapons. We reiterate the validity of our previous statements on de-targeting, reaffirming that none of our nuclear weapons are targeted at each other or at any other State.

We underline our desire to work with all states to create a security environment more conducive to progress on disarmament with the ultimate goal of a world without nuclear weapons with undiminished security for all. (...) We intend to continue seeking bilateral and multilateral diplomatic approaches to avoid military confrontations, strengthen stability and predictability, increase mutual understanding and confidence, and prevent an arms race (...). We are resolved to pursue constructive dialogue with mutual respect and acknowledgment of each other's security interests and concerns. (Our underlining).

The Joint Statement published in the eve of the -later postponed- Tenth NPT Review Conference, was intended to renew the Nuclear-Weapon States commitments to the spirit and letter of the Treaty at a juncture marked by scepticism about their willingness to advance nuclear disarmament. In diplomacy words matter, and the great powers' formal avowal *to preserving and complying with our bilateral and multilateral non-proliferation, disarmament, and arms control agreements and commitments, formulated at the level of Heads of State*, do carry legal weight, and may generate legal obligations, as established by the International Court of Justice<sup>40</sup>. From a political perspective, such joint statement no doubt constitutes both a confidence-building measure vis-à-vis the Non Nuclear-Weapon States, awaiting progress in the nuclear disarmament pillar, and an incentive for a successful X Review Conference. (It is a sad irony that a couple of months after such lofty declaration, the West and Russia are at loggerheads over Moscow's invasion of the Ukraine, risking war).

And on January 21, Japan and the United States gave another political boost to the NPT delivering a *Joint Statement on the Treaty on the Non-Proliferation of Nuclear Weapons*<sup>41</sup> which deepens even further a commitment to the grand bargain. Of great consequence is the recognition by both great powers but, especially, the United States, of *the importance of implementing commitments contained in the final documents from the 1995, 2000 and 2010 Review Conferences*. Such recognition contributes to consolidate the principle that the NPT review process is a continuum, where commitments agreed –by consensus– in previous review conferences are at least politically binding for all State Parties, setting building blocks for future progress towards nuclear disarmament. This is a principle persistently defended by countries from the global south.

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40 UNITED NATIONS INTERNATIONAL LAW COMMISSION. "Guiding Principles applicable to unilateral declarations of States capable of creating legal obligations, with commentaries thereto", 2006 Guiding Principles applicable to unilateral declarations of States capable of creating legal obligations, with commentaries thereto, 2006

41 JAPAN, MOFA. "Joint Statement on the Treaty on the Non-Proliferation of Nuclear Weapons", January 21, 2022 100292283.pdf (mofa.go.jp)

Moreover, in paragraph 5 of the Japan – U.S. Joint Statement, the American side *deeply appreciate(d) Japan’s long leadership in building the global non-proliferation regime and welcome(d) its current role in the Non-Proliferation and Disarmament Initiative (NPTI), the Stockholm Initiative (SI), the Group of Eminent Persons for Substantive Advancement of Nuclear Disarmament, and the 1.5 track meeting for Substantive Advancement of Nuclear Disarmament.* These are initiatives created either by Japan or by like-minded countries -with strong Japanese participation- to promote nuclear disarmament.

The Non-Proliferation and Disarmament Initiative (NPTI), in particular, established in September 2010 to support the implementation of the VIII Review Conference’s Plan of Action comprise today Australia, Canada, Chile, Germany, Japan, Mexico, the Netherlands, Nigeria, Philippines, Poland, the United Arab Emirates and Turkey. It contains a wide arch of political and geographical representation, including NATO and Non-Aligned Movement (NAM) members, and all of the five United Nations recognised regional groups: African, Asian, Eastern European, Latin America and the Caribbean (GRULAC) and Western European and Other Countries Group (WEOG). Such political diversity adds credibility to its efforts, displaying collective leadership and bridge-building capacity in the multilateral setting where the NPT review process operates. Like-minded groups expand the multilateral agency required to build consensus.

**The nuclear temptation.** The P-5’s strong belief that further proliferation of nuclear weapons must be prevented is most welcome at this time, when the Faustian illusion that nuclear weapons enhance national security has returned, to haunt States with regional (and even global) power aspirations. As Toby Dalton and Ariel Levite posit in Foreign Affairs,

The global system to prevent nuclear proliferation and promote disarmament is beginning to fray. Although the nonproliferation regime has held together for more than half a century, more countries are acquiring sensitive nuclear material and technology through illicit acquisition and preferential trade. In May 2021, for instance, the International Atomic Energy Agency (IAEA) reported that Iran had accumulated 10 kilogrammes of highly enriched uranium and severely restricted access to its nuclear sites. And in October 2021, Australia, the United Kingdom and the United States announced a new strategic partnership that will make Australia the first ever nonnuclear state to receive highly enriched fuel for nuclear powered submarines. It is unlikely Australia would divert this uranium to make bombs, but it establishes a dangerous precedent<sup>42</sup>.

This author addressed what he called the *nuclear temptation* in an article -in Spanish- for the Stimson Center dated August 2019<sup>43</sup>. There, I discussed suggestions formulated in Germany during Donald Trump’s presidency in favour of a national nuclear deterrent, driven by uncertainties regarding the United States readiness to display the *nuclear um-*

42 DALTON, Toby and LEVITE, Ariel. “The Nonproliferation regime is breaking”, Foreign Affairs, January 13, 2022. [The Nonproliferation Regime Is Breaking | Foreign Affairs](#)

43 LABBÉ, Alfredo, Op. Cit, Footnote 15.

*brella*. Also discussed, were the persistence of South Korean voices asking for an indigenous nuclear capacity.

On december 14, 2021 Foreign Affairs published an article suggestively titled: “Will more States acquire nuclear weapons (in the next ten years)?”<sup>44</sup>. The article consigned the answers of a group of fifty renowned disarmament and nonproliferation specialists, comprising politicians, diplomats, academics and civil society advocates. From that group, twenty either agreed or strongly agreed to the assertion -including former U.S. Defense Secretary William J. Perry and respected Stanford and Harvard *dons* Scott Sagan and Stephen Waltz- while eight remained “neutral”. The states most cited as nuclear weapons candidates were Iran, South Korea, Japan and Saudi Arabia. Saudi Arabia is mentioned in connection with Iran: should Teheran obtain the bomb, Riyadh would feel pressed to emulate its competitor for regional hegemony. (The Ukrainian crisis will further stimulate the pro-nuclear voices everywhere, given Moscow’s persistent nuclear sabre-rattling following the dismal performance of the Russian military and the growing support NATO countries are providing to Kyiv).

**Australia.** The acute deterioration of Sino-Australian relations lead last September to a momentous military development, with deep potential consequences for the Indo-Pacific: the announcement by President Joe Biden and Prime Ministers Boris Johnson and Scott Morrison of a new *enhanced trilateral security partnership* between Australia, the United Kingdom and the United States whose signature project will be the collaboration for the procurement of nuclear-powered submarines por the Royal Australian Navy<sup>45</sup>, although the deal also incorporates cooperation on cyber capabilities, AI, quantum technologies and additional undersea capabilities<sup>46</sup>.

Nuclear-powered submarines are not nuclear-weapon systems: the vessels will be armed with conventional weapons (although they could be fitted with nuclear cruise missiles), but the significantly expanded range plus operational capacities such as speed and submerged spans added by nuclear propulsion shall enhance significantly the strategic reach and deterrent value of the Australian Navy. The partnership, baptized with the awkward acronym AUKUS, incorporates for the first time an NPT Non-Nuclear-Weapon State to the restricted group operating nuclear-powered submarines, the other being China, France, India, Russia, the United Kingdom and the United States.

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44 FOREIGN AFFAIRS Editorial Team. “Will more States acquire nuclear weapons? Foreign Affairs asks the experts”. Foreign Affairs, december 14, 2021. [Will More States Acquire Nuclear Weapons? | Foreign Affairs](#) A powerful dissenting appreciation came from the Director of the James Martin Center for Nonproliferation Studies at the Middlebury Institute for International Studies, Monterey, California, Dr. William Potter, who stated *For the most past seven decades, academic experts, Intelligence analysts, and public commentators have forecast rampant Proliferation, which has failed to materialize. (...) Although the risk of proliferation is real and is increased by diminished confidence in U.S. security guarantees, disincentives remain strong and are likely to dissuade most States that may be reconsidering their nuclear options.*

45 THE ECONOMIST. “Australia is getting nuclear subs, with American and British help”, september 15, 2021. [Australia is getting nuclear subs, with American and British help | The Economist](#)

46 THE WHITE HOUSE Briefing Room. “Readout of AUKUS Joint Steering Group Meetings”, december 19, 2021. [Readout of AUKUS Joint Steering Group Meetings \\_ The White House.pdf](#)

We must remember however, that Brazil continues implementing a protracted programme to build a nuclear-powered submarine, the “Álvaro Alberto”<sup>47</sup> with French technical assistance, in the context of a larger contract comprising conventional submarines. The Brazilian vessel is scheduled for launching in 2030. (The Brazilian case was specifically discussed in our article for the Stimson Center<sup>48</sup>).

Although the Australian nuclear-powered submarine deal gave rise to non-proliferation concerns<sup>49</sup> -U.S. and U.K. nuclear-submarine reactors use weapons grade, highly enriched Uranium which could be employed for nuclear warheads- the three States reaffirmed their commitment to the NPT non-proliferation regime in a statement following the inaugural meetings of the AUKUS Trilateral Joint Steering Groups, last December:

The participants also discussed how they will work to ensure that the submarine program upholds their longstanding leadership in global non-proliferation, including through continued close consultation with the International Atomic Energy Agency. The participants underscored that the three countries remain steadfast in support of the nuclear non-proliferation regime and its cornerstone, the Nuclear Nonproliferation Treaty. They reaffirmed that the three governments will comply with their respective non-proliferation obligations and commitments and that they intend to implement the strongest possible non-proliferation standards.

Of great importance is the statement’s indication that, in order to *implement* (their) *strongest possible non-proliferation standards*, AUKUS is closely consulting with the International Atomic Energy Agency, the organisation implementing the NPT’s verification mechanisms enshrined in article III and detailed in IAEA normative communications.

Reactions to the “new alliance on the block” varied from a flat Chinese rejection (the spokesman for the Ministry of Foreign Affairs, Zhao Lijan denouncing it as *utterly irresponsible conduct* that would *seriously damage regional peace and stability, exacerbate an arms race and harm international nuclear non-proliferation efforts*<sup>50</sup>) to a warm welcome from

47 VAVASSEUR, Xavier. “Brazil’s Nuclear-Powered Submarine Project SN-BR Making Progress”, Naval News, december 6, 2021 [Brazil’s Nuclear-Powered Submarine Project SN-BR Making Progress - Naval News.pdf](#)

48 LABBE, Alfredo. Loc. Cit.

49 THE ECONOMIST”. “What does the Australian submarine deal mean for non-proliferation?”, september 17th, 2021, [What does the Australian submarine deal mean for non-proliferation? | The Economist](#) The main cause for concern, according to this respected source, was not Australia, but the fact that *the spread of nuclear-submarine technology and fuel for propulsion reactors sets a dangerous precedent that will be exploited by others. Countries that do want nuclear weapons, or simply want to keep the option open, might see submarines as a convenient excuse for making or acquiring bomb-usable HEU (highly-enriched Uranium), out of sight of pesky inspectors. (...)Iran (...) has toyed with the idea in the past. South Korea, which faces a North Korean nuclear threat, and where opinion polls show plurality support for building nuclear weapons, has explored nuclear subs off and on since the early 1990s. Brazil is actually building one, the Álvaro Alberto, as part of a partnership with France.*

50 THE NEW YORK TIMES. “Why Australia bet the House on lasting American power in Asia”, september 16, 2021. [Why Australia Bet the House on Lasting American Power in Asia - The New York Times \(nytimes.com\)](#)

Japan and Taiwan (a presidential spokesman in Taipei praising AUKUS as part of a *positive and necessary trend for peace and stability in the region*<sup>51</sup>).

Importantly, India also sees the new defence mechanism with positive eyes. C. Raja Mohan, Director of the Institute of South Asian Studies at the National University of Singapore wrote for Foreign Policy that *(f)rom New Delhi's perspective, the new coalition signals a strong political resolve in Washington to confront the growing security challenges from Beijing. In ending the long-standing taboo on transferring military nuclear propulsion technology even to its allies, the U.S. is acknowledging that deterring China requires outside-the-box-thinking*<sup>52</sup>. The geopolitical impact of AUKUS lies not in the scope of this paper, but the point we stress is the increased role of nuclear-related technologies in the strategic planning of NPT NNWS in the Indo-Pacific.

In the case of Australia, prominent security specialists have even suggested the option of acquiring an indigenous nuclear capacity<sup>53 54</sup>, but -as clearly affirmed in the AUKUS Trilateral Joint Steering Groups statement- Canberra has decided to remain firmly in the Non-Proliferation fold.

In the case of **South Korea**, the strategic imperative to balance the expanding nuclear, missile and conventional capabilities of its aggressive northern neighbour has convinced many of her citizens –between fifty and seventy percent according to the International Institute of Strategic Studies<sup>55</sup>– of the perceived need to attain a local nuclear deterrent either by convincing the United States to re-deploy tactical nuclear weapons in their territory (withdrawn in 1991), or by developing an indigenous nuclear arsenal. Two of the primary conservative candidates in the last presidential campaign advocated in favour of re-hosting U.S. nuclear weapons<sup>56</sup> (they lost the primary). Such sentiments are shared by politicians in a wide ideological spectrum, convinced that Pyongyang *will never agree to give up its nukes, so Seoul needs a nuclear deterrent of its own*<sup>57</sup>. Conversely, other analysts underline, citing the danger of escalation brought by a South Korean nuclear capability:

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51 THE ECONOMIST. "Australia is getting nuclear subs, with American and British help", september 15, 2021. [Australia is getting nuclear subs, with American and British help | The Economist](#)

52 FOREIGN POLICY. "India welcomes AUKUS pact as China deterrent", september 16, 2021, [AUKUS Pact Welcomed by India as China Deterrent \(foreignpolicy.com\)](#)

53 ALEXANDER, Harriet, "Nuclear arsenal must be on Australia's agenda", The Sydney Morning Herald, july 1st, 2019 [Nuclear arsenal must be on Australia's agenda, argues defence expert \(smh.com.au\)](#)

54 LYON, Rod. "Should Australia build its own nuclear arsenal", The Strategist, october 24, 2019 [Should Australia build its own nuclear arsenal? | The Strategist \(aspistrategist.org.au\)](#) *Australia is a party to the Nuclear Non-Proliferation Treaty, and it is not a repentant state. (Repentant states are those that signed the treaty but later came to regret their hastiness). That's because the NPT generally represents the last major occasion on which states were asked to choose their own nuclear identity. India, Pakistan and Israel did not show such hastiness and went the nuclear way.*

55 IISS, Strategic Comments. "The arms race on the Korean Peninsula", october 21<sup>st</sup>, 2021 [The arms race on the Korean Peninsula \(iiss.org\)](#)

56 SOENDERGAARD Larsen, Morten. "Talk of a nuclear deterrent in South Korea", Foreign Policy, september 8, 2021, [South Korea Talks of Nukes \(foreignpolicy.com\)](#)

57 Ibid.



(...) although mutual possession of nuclear weapons may reduce the chances of *nuclear* war, it may, at the same time, make conventional wars and militarized crises more likely, as well as incentivize greater risk taking at lower levels. (...) For instance, a nuclear-armed South Korea could be emboldened to respond more aggressively to North Korean provocations with proactive deterrence or “quid pro quo plus” military operations, the inherent escalation risks of which are intended to dissuade North Korea in the first place. Facing perceived “use or lose” pressures, North Korea may be quicker to cross certain escalation thresholds, such as the use of long-range rocket systems, as it seeks escalation dominance. The potential for these action-reaction dynamics to spiral into a race up the escalation ladder is clear. To be certain, this potential is already present, but it seems likely to worsen if South Korea possessed nuclear weapons. (...) South Korean proliferation could, then, make conflict more likely at worst and fail to deter it at best<sup>58</sup>.

The Republic of Korea has compounded its phenomenal economic and technological development—including an advanced nuclear industry contributing about 29% of the electricity grid—with a formidable conventional military force which now boasts submarines armed with submarine-launched cruise missiles (SLBM; the first, successful test performed early in October 2021).

Thus, South Korea *is the only country to develop SLBMs without first developing nuclear weapons*. All the other seven states deploying them are nuclear-weapon possessors<sup>59</sup>. The SLBM tested is a variant of the short-range Hyunmoo 4-4 missile, with a range of over 500 kilometres. It will arm the nine vessels of the KSS-III, AIP (air independent propulsion) “Dosan Ahn Chango” Class conventional submarines, displacing 3.500 long tonnes. Each submarine shall embark 6 to 10 cells for SLBM launching, thus providing Seoul with a sort of conventional “second-strike” capability against the North. Obviously, conventional missiles can be converted to deliver nuclear weapons.

Other South Korean military achievements include the development of supersonic anti-ship and long-range air-to-surface missiles to arm the KF-21 “Boramae”, the first fighter jet designed in the country (in collaboration with the U.S. aviation giant Lockheed Martin, providing technical support. The KF-21 is a “4.5 generation” fighter with a lesser performance compared to the U.S. F-35 but exceeding those of the French “Rafale” and the British “Typhoon”).

Furthermore, Washington removed the last range and payload limitations to Seoul ballistic missile programme: a political decision opening the way to eventual South Korean Medium and even Long-range Ballistic Missiles. The ROK currently deploys a Short-Range Ballistic Missile, the Hyunmoo-4, with a range of 800 kilometres, *placing all of North Korea*

58 SUKIN, Lauren and DALTON, Toby. “Why South Korea shouldn’t build its own nuclear bombs”, War on the Rocks, Texas National Security Review, october 26, 2021, [Why South Korea Shouldn’t Build Its Own Nuclear Bombs - War on the Rocks](#)

59 SOENDERGAARD Larsen, Morten. Loc. Cit.

*within reach*<sup>60</sup>. In fact, and in spite of his policies of rapprochement to the North, President Moon Jae-in's government has increased South Korea's military spending by an average 7% during his term, in the context of *an escalating arms race in the peninsula*<sup>61</sup>.

According to the ROK Joint Chiefs of Staff, these new missile systems will strengthen the country's 'tailored deterrence' against North Korea's nuclear and missile threats. South Korea is also developing and indigenous missile-defence system, independent satellite-surveillance and reconnaissance capabilities, enhanced cyber defences, uninhabited aerial vehicles, AI and robotics. These projects align with an export push in the form of a 'Buy Korea Defence' plan created to support the development of a more robust domestic defence industry. South Korea is currently one of the top ten global arms exporters<sup>62</sup>. (Our underlining)

The last development in this defence push, last December, was the ROK's National Assembly funding for the first South Korean aircraft carrier, project CVX, a 45,000-tonne vessel, with an embarked wing flying of 20 U.S. F-35 and assorted helicopters<sup>63</sup>. But South Korea is also seeking nuclear-powered submarines having so far found a persistent refusal from Washington. However, the AUKUS precedent could very well change the situation opening the way not only for South but also for Japan to acquire such prized weapon system. It is a tragedy that so many resources are and will keep being diverted to arms at such a critical juncture for humanity, facing global health and climate change threats.

**Japan** enjoys the nuclear technological and industrial capabilities, plus the know-how and experience accumulated in decades of power generation, to become a NW possessor in short time if so decides.

That move would require a substantial reform of its "pacifist" constitution and her withdrawal from the NPT, invoking the *extraordinary events (...that) have jeopardised (its) supreme interests* (Article X, Nº 1). While the Indo-Pacific is rife with tensions affecting the "supreme" security interests of its major players -including an ongoing nuclear arms race- Japan's long and most distinguished record of multilateral and bilateral engagement in disarmament diplomacy (exemplified by the current Primer Minister and former Minister of Foreign Affairs, Fumio Kishida, a native from Hiroshima) plus the renewed commitment to nuclear non-proliferation and disarmament consigned in the January 21st Joint Statement on the Treaty on the Non-Proliferation of Nuclear Weapons<sup>64</sup>, lead me to believe that Tokyo will remain impervious to the nuclear temptation.

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60 IISS. Loc. Cit.

61 Ibid.

62 Ibid. According to the authors, South Korea may find conventional alternatives to nuclear weapons, such as conventional counterforce capabilities and strategies. *A conventional counterforce Strategy relies on accurate, secure and sufficiently impactful conventional forces for damage-limiting first-strikes and secure and punitive second strikes.* (Formulated in this way, "conventional counterforce" borrows from the classical nuclear deterrence doctrine).

63 LEE, Juho. "South Korea's CVX Aircraft Carrier Project Secures Last Minute Funding", Naval News, december 3, 2021 [South Korea's CVX Aircraft Carrier Project Secures Last Minute Funding - Naval News.pdf](#)

64 JAPAN, MOFA. "Joint Statement on the Treaty on the Non-Proliferation of Nuclear Weapons", january 21, 2022 [100292283.pdf \(mofa.go.jp\)](#)

In any case, such positive nuclear posture coexists with formidable conventional capabilities developed by Japan in recent years, responding to the growing challenges posed by the security environment in her region. Japan's conventional build-up combined with a sustained increase in military spending (approaching 2% of GDP), endows Tokyo with a conventional deterrence which could be further expanded to incorporate pre-emptive capabilities; last November, addressing a unit of the Japanese army (formally known as Japan Ground Self-Defence Force) Prime Minister Kishida announced the consideration of new capabilities, such as *enemy base strike*; Such bold move -involving the destruction of missile launchers in hostile territory- comes as a reaction to fast growing North Korean missile stockpiles which could overwhelm Japanese missile defences but also to hypersonic weapons and *trajectory shifting missiles*<sup>65</sup>.

This shift in doctrine is to be considered in the context of a revision of Japan's Medium-Term Programme ordered by the Prime Minister.

**Nuclear weapon risks.** As we have seen, vertical proliferation among the Nuclear-Weapon States, disproving or at the very least delaying Article VI disarmament commitments, and the possibility of a new wave of proliferation stemming from pressures to enhance security by acquiring nuclear weapons, endanger the nuclear order.

But there are other nuclear weapon risks, raising the possibility of unintended, accidental or unauthorised use of nuclear weapons (or war) or emanating from the illusion of a purportedly "limited" use of nuclear weapons. While the first type of risk is inherent to nuclear-weapon systems, the second reflects the dangerous assumption that nuclear use, or nuclear escalation can be "controlled" once unleashed.

The Geneva based United Nations Institute for Disarmament Research (UNIDIR), one the most respected institutional think tanks in the field published in 2017 an insightful paper titled *Understanding nuclear weapon risks*<sup>66</sup> covering some of the most salient risks: nuclear deterrence, the quest for "useable" nuclear weapons, nuclear-armed cruise missiles, nuclear command and control accidents, cyber threats, the safety of nuclear weapons and materials and the security threats posed by non-state actors, that is terrorists acquisition of a nuclear weapon or nuclear materials.

Their assessment is presided by the sobering recognition that *(t)he threat of a nuclear weapon detonation event in 2017 is arguably at its highest in the 26 years since the collapse of the Soviet Union. (...) Brinkmanship between the Russian Federation and the West over disputes in Ukraine and Syria underline the heightened possibility of a nuclear*

65 SHARP, Andrew. "Kishida tells troops: Capacity to strike enemy bases is option", NIKKEI, Politics, november 27, 2021. As a powerful and unprecedented message, the prime minister posed atop the turret of a tank, with the uniform and combat gear of a five-star General. Kishida tells troops: Capacity to strike enemy bases is option - Nikkei Asia According to author, the "pacifist" Constitution precludes pre-emptive strikes, so the base strikes now being considered would take place after it has been determined that Japan is being attacked. This formulation lends some space for interpretation, however. For instance, once it has been established the Japan is under missile attack, all other launchers ready (or in a position) to pound Japan could be destroyed before they fire their missiles.

66 BORRIE, John, CAUGHLEY, Tim and WAN, Wilfred (Editors). "Understanding Nuclear Weapon Risks", UNIDIR Resources, march 30, 2017. Understanding Nuclear Weapon Risks | UNIDIR

*detonation in the current landscape*<sup>67</sup>. Such conclusion looks even more plausible at the time of this writing, when the Russian aggression against Ukraine threatens European stability to an extent not witnessed since the Cold War.

When discussing the main findings, the UNIDIR researchers posit that *(t)he substantial levels of investment in nuclear weapons and nuclear weapons systems and their modernization have enhanced rather than decreased the likelihood of an intentional or inadvertent detonation event*.

This is one of our own initial propositions, intimately associated to the greater role that nuclear weapons are playing -in practice if not in discourse- in the security doctrines of the states engaged in “great power competition”.

But not just them, as shown by the nuclear deterrence policies of India and Pakistan, whose military programmes clearly expose the enhanced role of nuclear weapon systems<sup>68</sup>. The United Kingdom’s 2021 Integrated Review of Security, Defence, Development and Foreign Policy, raised the ceiling for its nuclear inventory to 260 warheads, an increase of 35 warheads with respect of the 2015 Strategic Defence and Security Review<sup>69</sup>. North Korea is the more blatant example of irresponsible nuclear development, exacerbating the possibility of a *detonation event*.

As implied before, **nuclear deterrence** itself presents the greater risk.

UNIDIR’s paper chapter 2 states that *(n)uclear deterrence is inherently risky, both deliberately so and as a function of imperfect systems and human failings. Deterrence theory evolved to prevent NATO-Soviet conflict in a Mutually Assured Destruction (MAD) world. In that bipolar stand-off, success depended on repeated circumstances of good fortune. Today’s geopolitical complexities and expanded club of nuclear actors exacerbate the inherent dangers of nuclear deterrence*<sup>70</sup>.

Deterrence rests upon subjective, complementary convictions held by the contenders locked up in a deterrence relationship about their mutual capabilities for nuclear retaliation. But, for deterrence to work, contenders ought to be certain not only about their opponent’s capability for retaliation but also about their willingness to unleash it in case of nuclear attack. Having a *second-strike capability* is not sufficient in itself; each contender must believe the other will deliver such strike. For Fitzpatrick and Barnett nuclear deterrence *raises the retaliatory response to an existential level*<sup>71</sup>. Or, as Jeffrey Lewis puts it vivid words: *The whole idea of nuclear deterrence is that if one party starts a nuclear war, every-*

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67 Note the use of *nuclear weapon detonation*, a more neutral term covering not only “use” in the classical nuclear parlance but any kind of explosion, even an accidental one.

68 SIPRI, Op. Cit. *In the past, the limited ranges of many of India’s initial nuclear systems meant that their only role was to deter Pakistan. India now appears to place increased emphasis on China, with the development of longer-range missiles capable of targeting all of China*. Regarding Pakistan, SIPRI states that *Pakistan is pursuing the development and deployment of new nuclear weapons and delivery systems as part of its ‘full spectrum deterrence posture’ in relation to India*.

69 Ibid.

70 FITZPATRICK, Mark and BARNETT, Marc. “Risk and Nuclear Deterrence”, in UNIDIR. Op. Cit. p. 23.

71 Ibid.

*body dies*<sup>72</sup>. Winston Churchill's rhetorical dash *safety will be the sturdy child of terror, and survival the twin brother of annihilation* was not, and is not off the mark.

One of the main problems generated by the construct of nuclear deterrence is its reliance on human, hence fallible perceptions: leaders need to be credible, and credibility requires resolve (or maybe more crucial, the perception of resolve from the contender). But *how can a state credibly threaten to impose a sanction (a nuclear attack) that, if imposed, would result in its own destruction?*<sup>73</sup>.

The imperative to show resolve expands the danger of flare-ups and conflict escalation while imposing on each opponent exacerbated –military, political and psychological– levels of alert and readiness, including through drills and constant modernisation which open the way for dangerous misperceptions. In fact, the Cold War was a period *marked by a series of near misses and false alarms fuelled by miscalculations, misinformation and misunderstandings in which luck played a defining role in avoiding nuclear conflict*<sup>74</sup>. As a believer, this author is more inclined to attribute the avoidance of a nuclear catastrophe to the Divine Providence rather than good luck.

Probably the most dangerous tenet of nuclear deterrence is ***launch-on-warning***, that is, the triggering of the retaliatory response following a first strike when the early-warning systems signal such incoming strike. The alternative would be *launch-on-detonation*, following the confirmation of an attack. But by then it would be too late, for the incoming nuclear onslaught would obliterate your command-and-control centres, your ICBM sites and your air and naval bases, making the first strike of your opponent a successful gamble. Therefore, you must use your nuclear capabilities, or you will lose them. And, again, the certainty about your determination to counterstrike in such way is vital to deter your adversary: first strike needs to be equated to suicide (remember: *the whole idea of nuclear deterrence is that if one party starts a nuclear war, everybody dies*). That is why the decision to launch a counterattack must be taken in less than 20/15 minutes counted from the early warning.

72 LEWIS, Jeffrey. Loc. Cit.

73 POWELL, R. "Nuclear deterrence theory, nuclear proliferation, and national missile defense", International Security, vol. 27, nº 4, 2003, cited by FITZPATRICK and BARNETT. Loc. Cit.

74 FITZPATRICK and BARNETT, Op. Cit. p. 24. The authors explain that: *(t)he Cuban Missile Crisis (...), is often seen as a positive example of deterrence theory in practice. But rather than a pure case of backing down in the face of stern American resolve, Moscow's decision to remove nuclear missiles from Cuba was also a quid pro quo for the United States' removal of nuclear systems from Turkey. And respective shows of resolve during the 13-day crisis nearly led to nuclear war. In order to protect Soviet operations on the ground, the Kremlin deployed four nuclear-armed submarines to Cuba and authorized launch of their 15-kiloton nuclear torpedoes if under attack. When the United States ships that were blockading Cuba used "practice depth charges" to force the submarines to surface (...), the captain of one of them, believing to be under attack, prepared to launch a nuclear torpedo. All three senior officers on board had to concur with such a decision, however, and the refusal of one of them to do so prevented a nuclear exchange (Our underlining).*

Ambassador Thomas Graham Jr., an authoritative voice in nuclear diplomacy<sup>75</sup> portrays it vividly in a grappling article published last September by *Just Security*<sup>76</sup>:

The (U.S. and the USSR) claimed they would use (their vast nuclear arsenals) as weapons only in a second-strike, launch-under-attack mode. But this claim was not true. Both sides had established launch-on-warning policies, which meant that a country initiates general nuclear war if its early-warning technology indicated that strategic nuclear missiles launched by the other superpower were on the way. Pursuant to U.S. early-warning technology, the United States would expect to detect Soviet strategic nuclear missiles coming over the North Pole about 20 minutes before they arrived and exploded on the territory of the United States. Pursuant to established policy, when the first warning was received, an emergency call among the senior national security advisors to the president would be initiated to discuss the situation for the first 10 minutes. If during this discussion the threat was verified and confirmed, the president would then be notified wherever he was — fishing in Idaho or soundly sleeping in his bed. The president would be briefed in person on the situation, and he would be told that he had six minutes to decide whether to launch the U.S. strategic nuclear forces and initiate general nuclear war in response to this attack.

Had a president decided to use the country's strategic nuclear forces in response to the warning, the final minutes of the 20 were to be utilized to get the launch order to U.S. missile sites. In theory, this would enable U.S. missiles to be launched before the Soviet missiles arrived and possibly destroyed the U.S. forces. It is generally believed that each time the U.S. practiced this procedure during the 45 years of the Cold War, the president always said "launch" at the end of the practice scenario. President Ronald Reagan strongly denounced this reckless practice in his memoirs. "We had many contingency plans for responding to a nuclear attack. But everything would happen so fast that I wondered how much planning or reason could be applied in such a crisis...Six minutes to decide how to respond to a blip on a radar scope and decide whether to unleash Armageddon! How could anyone apply reason at a time like that?" (Our underlining)

This, of course, created a serious risk of a nuclear war taking place by miscalculation or accident. Indeed, during the Cold War, there were at least four well-documented such incidents, two on each side.

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75 Ambassador Graham served as General Counsel for the United States Arms Control and Disarmament Agency and Presidential Special Representative for Arms Control, Non-proliferation and Disarmament during the Clinton Administration.

76 GRAHAM, Ambassador Thomas. "The role of nuclear weapons: why Biden should declare a policy of no first use", september 29, 2021. [Justsecurity.org](https://www.justsecurity.org), [The Role of Nuclear Weapons: Why Biden Should Declare a Policy of No First Use](https://www.justsecurity.org/2021/09/29/the-role-of-nuclear-weapons-why-biden-should-declare-a-policy-of-no-first-use/) ([justsecurity.org](https://www.justsecurity.org))

Two well documented incidents occurred in the last decade of the Cold War, in 1983, at a time of renewed tension between Washington and Moscow<sup>77</sup>. The strain was fuelled among other factors by the Reagan's Administration launching of the futuristic Strategic Defence Initiative (nicknamed the "Stars War"), and the President's provocative rhetorical dubbing of the Soviet Union as "the evil empire". At the Kremlin, the former KGB boss, Yuri Andropov was taking the helm from Leonid Brezhnev. In such juncture, the U.S. was deploying medium range ballistic missiles in Western Europe, particularly the Pershing II, which could reach Soviet vital centres in very short time. By November, the Soviet leadership had become genuinely concerned about what their intelligence understood as preparations for a U.S. nuclear first strike; the Kremlin feared that the nuclear imbalance between the USSR and United States should not increase to a point of intolerable American advantage, and if that red line was crossed, Moscow should launch a pre-emptive (desperate) first strike. The KGB even developed a specific computer programme to gauge such level of imbalance<sup>78</sup>.

Soviet perceptions (in fact, misperceptions) were exacerbated by a NATO battle exercise, named "Able Archer 83", *designed to practice the release of nuclear weapons during wartime conditions*<sup>79</sup>. The exercise's triggering scenario was a Warsaw Pact conventional attack on Yugoslavia, Finland, Norway and (West) Germany and even air attacks on Britain<sup>80</sup>. In a typical outline of escalation, "Able Archer 83" contemplated an initial, "limited" nuclear response to the hypothetical offensive. When the initial limited nuclear attacks failed to stop the Soviet advance, the nuclear response increased before the exercise ended<sup>81</sup>. "Able Archer" included intensive deployment of troops and weapon systems, plus an increase in communications and the displacement of NATO leaders, all of which was interpreted in Moscow as credible preparations for a nuclear first strike<sup>82</sup>. The risk of a spark igniting a nuclear holocaust was extremely dangerous<sup>83</sup>.

Prior to the exercise, on the night of September 25, 1983<sup>84</sup>, a new Soviet satellite-based early-warning system signalled to the Shermukov-15 centre the launching of one, and later five U.S. ballistic missiles against the USSR. The officer in charge, Lieutenant Colonel Stanislav Petrov, unconvinced about the reliability of a novel system, rejected the satellite report as erroneous and conveyed a "false alarm" notice to headquarters. *If the senior officer had not violated his orders, given the anxieties of the times, general nuclear war would almost certainly have followed. He was the right man in the right place at the*

77 LEWIS, P. M., WILLIAMS, Heather, PELOPIDAS, Benoît & AGHLANI, Sasan. "Too close for comfort: Cases of near Nuclear use and options for policy", april 2014, CHATHAM HOUSE. [20140428TooCloseforComfortNuclearUseLewisWilliamsPelopidasAghlani.pdf \(chathamhouse.org\)](https://www.chathamhouse.org/2014/04/too-close-for-comfort-nuclear-use-lewis-williams-pelopidas-aghlani)

78 GRAHAM Jr., Amb. Thomas. Loc. Cit.

79 JONES, Nate. "Countdown to declassification: finding answers to a 1983 nuclear war scare", Bulletin of the Atomic Scientists, SAGE, 2013 [Countdown to declassification: Finding answers to a 1983 nuclear war scare - Nate Jones, 2013 \(sagepub.com\)](https://www.sagepub.com/journalsPermissions.nav)

80 Ibid

81 Ibid.

82 LEWIS, P. M., WILLIAMS, Heather, PELOPIDAS, Benoît & AGHLANI, Sasan. Loc. Cit.

83 Ibid.

84 Ibid.

*right time*<sup>85</sup>. A documentary film on the incident, titled “The man who saved the world” is available in You Tube: “The man who saved the world” - YouTube

**Cyber threats** constitute another layer of significant nuclear risk, related to the heavy dependence of nuclear weapon systems *on digital technologies for launching, targeting, command and control and other functions...*<sup>86</sup>. This dependence opens vulnerability to *digital interference, which are called cyber-attacks*<sup>87</sup>. And this, in its turn, bears on the delicate balance of mutual perceptions lying at the heart of nuclear deterrence and strategic stability.

In the event of crisis escalation—such as over events in Ukraine (please, note that these lines were written in 2017), the Middle East, or Asia—the assumption is that weapons systems will perform as planned. But this is not a safe assumption. Any cyber interference with one or more parts of strategic weapons systems would undo the precarious balance of perceived deterrence and stability, and create confusion and uncertainty as to its origin, which could lead to inaccurate, inadequate, and hasty responses and the possibility of conventional and nuclear war. (...) Cyber vulnerability in nuclear weapons systems is all about connectivity and data integrity. Reliable, trustworthy, and accurate data is vital for targeting, command, and control. The security of data and the security of channels that transmit and receive that data are therefore critical for the reliability of all modern nuclear and conventional weapons systems<sup>88</sup>. (Our underlining).

We have no space to develop this -very technical- aspect in any detail, but the possibility of tampering or interfering with digital technology systems that constitute the “eyes and ears” of the nuclear powers can trigger unintended escalation, or even a retaliatory response from a capital interpreting a major, crippling cyber offensive as the prelude of a nuclear first strike.

There is also the prospect of non-state actors, such as a terrorist group (or even a rogue “insider”) aiming at provoking a crisis amongst nuclear powers through cyber manipulation.

A similar risk is related to the growing dependence of nuclear powers from **space assets**, linked to -or becoming the main component of- the early warning networks, essential to deterrence preservation. *As military situational awareness, observation, and connectivity rely heavily on space-based satellites and are wholly dependent on cyber technologies, vulnerabilities in those systems pose enormous risks with regard to misjudged and irreversible missile launch and thus—particularly in times of heightened tensions—regional or even global war*<sup>89</sup>.

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85 GRAHAM Jr., Amb. Thomas. Loc. Cit.

86 LEWIS, Patricia and UNAL, Beyza. “Cyber threats and nuclear weapons systems”, in UNIDIR. Op. Cit. p. 61.

87 Ibid.

88 Ibid

89 Ibid.



**“Usable” nuclear weapons.** However, the greater risk nowadays is posed by the – delusional– idea that nuclear weapons, configured for the challenges of present-day battlefields, could be used without risking Armageddon. Such a proposal was forwarded by Elbridge Colby, former U.S. Deputy Assistant Secretary of Defense for Strategy and Force Development in 2017–18. Writing for *Foreign Affairs* in 2018, he signalled that *Washington should step up its efforts to develop low-yield tactical nuclear weapons and associated strategies that could help blunt or defeat a Russian or Chinese attack on U.S. allies without provoking a nuclear apocalypse. Demonstrating to potential opponents that the United States has this ability is the best way to avoid ever having to put it into practice*<sup>90</sup>.

The desire for low-yield, accurate nuclear warheads points to conventional battlefield scenarios where these weapons could achieve tactical supremacy while avoiding nuclear escalation. But the nuclear powers have never faced such situation: this is clearly uncharted strategic territory, so any prospects about the outcome of this purported/desired “limited”, or tactical use is based mainly on speculation or wishful thinking. There is simply no guarantee that any use of nuclear weapons would not lead to a larger, catastrophic exchange. A sobering animated simulation of the prospects of escalation was uploaded to YouTube by a team from the Princeton University Nuclear Futures Lab, and is still available at <https://www.youtube.com/watch?v=2jy3JU-ORpo>.

The use of tactical weapons by the Russian Federation in the Ukraine has been the subject of many recent analysis. One of them suggested the “hurting stalemate” besetting the Russian offensive as a potential driver for such use<sup>91</sup>. The anticipated Russian *blitzkrieg* over Ukraine has turned into a grinding attrition conflict, even after Moscow curtailed its strategic objectives, following a disastrous operation to capture Kyiv. The use of tactical nuclear weapons could break the fierce Ukrainian defence and force a termination of the war in Russian terms.

So far, the Kremlin’s nuclear “sabre-rattling” has remained rhetorical – in the context of the parallel information/propaganda war waged by belligerents and we can only pray it

90 COLBY, Elbridge. “If you want peace, prepare for nuclear war: a strategy for the new great-power rivalry”. *FOREIGN AFFAIRS*, Volume 97, Number 6, November/December 2018, p. 31 *The Pentagon’s 2018 Nuclear Posture Review (...)* committed to modernizing its air-delivered tactical bombs and developing low-yield nuclear warheads for submarine-launched ballistic missiles. ***But the United States should go further and specifically develop or adapt a modest number of nuclear weapons and delivery systems that could damage key Russian or Chinese conventional targets, especially those needed for an invasion of the Baltics or Taiwan: entrenched ground forces, manoeuvre troops, naval flotillas, and invasion fleets. The new weapons would need lower yields than most of those in the current arsenal, which have been optimized to destroy hardened silos sheltering enemy missiles, not to stop conventional forces. These weapons would not replace U.S. conventional forces. They would, however, help offset any advantages that Russia and China derive from their own nuclear arsenals. Risking a confrontation with a similarly well-equipped United States would mean courting defeat or near-suicidal escalation.*** <https://www.foreignaffairs.com/articles/china/2018-10-15/if-you-want-peace-prepare-nuclear-war> (Destacado nuestro).

91 GIOVANNINI, Francesa. “A hurting stalemate? The risks of nuclear weapon use in the Ukraine crisis”. *The Bulletin of the Atomic Scientists*, march 3, 2022. [A hurting stalemate? The risks of nuclear weapon use in the Ukraine crisis - Bulletin of the Atomic Scientists \(thebulletin.org\)](https://thebulletin.org)

remains that way. But the danger is real and observers such as Michael Hirsh find in it the drive to *reawaken the world to much-needed arms control*<sup>92</sup>.

This is a conclusion we wholeheartedly embrace. It has been under dire historical circumstances that progress in arms control and disarmament has been achieved -through bold diplomacy. Today Europe have seen decades of complacency shattered by cold aggression, as stated by the United Nations General Assembly in its seminal Resolution A/ES-11/1<sup>93</sup> adopted on March 1<sup>st</sup>. And while the first priority is to end hostilities causing untold human suffering, intensive multilateral and bilateral diplomacy should follow suit to re-engage in security-building, resuming dialogue amongst nuclear powers and seizing consecrated arenas such as the NPT Review process to confront the pressing nuclear risk. This is an endeavour summoning all nations, where middle powers -such as Chile- can and must exercise their measure of multilateral leadership using all the diplomatic resources at their disposal, including like-minded settings such as the NPTI.

### What to do? A view from the South

Since 1990, when it fully recovered its democracy, Chile has been consolidating an international security foreign policy based on the paradigms of human security and collective security<sup>94</sup>. While faithfully adhering to the collective security mechanisms enshrined in the United Nations Charter, we have come to understand -and uphold- security as an indivisible, global public good benefiting international community as a whole. This is not an “idealistic” position emanating from ideological posturing, but the result of a sobering assessment of our national capabilities as a middle, regional power. Lesser powers cannot advance and protect their national interests through a “hard power” approach, even when possessing military capabilities for self-defence, including limited deterrence.

In the XXI century, middle and small powers must resort to international cooperation within the legal and operational framework provided by the multilateral system, constantly pursuing the *broad concept of peace*<sup>95</sup> underpinning the work of the United Nations, purposed by its Charter as the ***centre for harmonizing the actions of nations in the attainment of (...) international co-operation in solving international problems of an economic, social, cultural or humanitarian character...***<sup>96</sup>. This broad concept of peace goes beyond the mere

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92 HIRSH, Michael. “Is Putin resurrecting the balance of terror?”. Foreign Policy, march 1, 2022. [Is Russia's Vladimir Putin Resurrecting the Balance of Terror? \(foreignpolicy.com\)](https://foreignpolicy.com)

93 UNITED NATIONS. General Assembly, Resolution A/ES-11/1, “Aggression against Ukraine”, 1st march 2022, thirteenth Preambular Paragraph: *Recognizing that the military operations of the Russian Federation inside the sovereign territory of Ukraine are on a scale that the international community has not seen in Europe in decades and that urgent action is needed to save this generation from the scourge of war.*

94 Human security: approach to national and international security that gives primacy to human beings and their complex social and economic interactions. The concept of human security represents a departure from orthodox security studies, which focus on the security of the state. The subjects of the human security approach are individuals, and its end goal is the protection of people from traditional (i.e., military) and nontraditional threats such as poverty and disease. Encyclopedia Britannica online [human security | political science | Britannica](https://www.britannica.com)

95 GAREIS, Seven Bernhard, and VARWICK, Johannes. “The United Nations: an introduction”, Palgrave Macmillan, 2005, New York. p. viii.

96 United Nations Charter: Article 1, The purposes of the United Nations, numbers 4 and 3 (our emphasis).

*prevention of war to include the improvement of the humanitarian and social condition of humankind, the strengthening of international law, and concerns regarding sustainable development*<sup>97</sup>. It is this understanding of the multilateral system -of which the United Nations is both the head and the centre- that leads to a conception of security informed by the paradigm of Human Security, a paradigm which I even regard as implicit in the Charter. Now, a conception of security *giving primacy to human beings* is naturally incompatible with the very existence of weapons with the capability of wiping life from the surface of our planet.

These sentiments -actively promoted by states from the *global south*, and particularly Latin America and the Caribbean, coalescing around the Tlatelolco Treaty- permeate the Final Document<sup>98</sup> of the Tenth Special Session (the first devoted to Disarmament) of the United Nations General Assembly (UNGA), celebrated in New York from 23 may to 30 june 1978<sup>99</sup>. In its Introduction, the Final Document of what is known in disarmament circles as the “SSOD-I” states:

The attainment of the objective of security, which is an inseparable element of peace, has always been one of the most profound aspirations of humanity. States have for a long time sought to maintain their security through the possession of arms. Admittedly, their survival has, in certain cases, **effectively depended on whether they could count on appropriate means of defence**<sup>100</sup>. Yet the accumulation of weapons, particularly nuclear weapons, today **constitutes much more a threat than a protection for the future of mankind (...)**

**Mankind today is confronted with an unprecedented threat of self-extinction arising from the massive and competitive accumulation of the most destructive weapons ever produced. Existing arsenals of nuclear weapons alone are more than sufficient to destroy all life on earth.** Failure of efforts to halt and reverse the arms race, in particular the nuclear arms race, increases the danger of the proliferation of nuclear weapons. Yet the arms race continues. Military budgets are constantly growing, with enormous consumption of human and material resources. **The increase in weapons, especially nuclear weapons, far from helping to strengthen international security, on the contrary weakens it**<sup>101</sup>. (Emphasis added).

97 GAREIS and VARWICK. Op. Cit. p. viii. *It is because of this concept of peace that the goals of the UN Charter comprise a much broader field of responsibility than the mere possibility of using military force against an aggressor. Other areas include the resolution of disputes by peaceful means, the search for co-operative solutions for economic, social, cultural and humanitarian problems, and the encouragement of behaviour that accords with the principles of international law. This ambitious catalogue of goals makes it quite clear that the UN does not understand itself as a mere means to the fulfillment of a specific task, but rather envisions a qualitative change in international relations in general.* Ibid. p. viii (Our emphasis).

98 United Nations, General Assembly (UNGA). Document (A/S-10/2). [Final document of the Tenth Special Session of the General Assembly. \(un.org\)](#)

99 The First Conference of Heads of State and Government of the Non-Aligned Movement (NO-AL), Belgrade, 1961, contains the proposal to convene such Special Session.

100 How true this affirmation stands after the Russian aggression against Ukraine.

101 UNGA, Document (A/S-10/2), paragraphs 1 and 11. [Final document of the Tenth Special Session of the General Assembly. \(un.org\)](#)

These words, formulated by the “parliament of the world” and adopted by consensus (thus carrying full politically binding authority) retain their sombre momentousness today, forty-four years later, when the spectre of nuclear weapons use has been awakened by the Russian invasion of the Ukraine. As we have exposed in the previous pages, the nuclear arms race has reignited, not yet with the frenzy displayed in the '70 and the '80, but with a qualitative vigour stimulated by the technological impetus of the fourth industrial revolution.

The renewed nuclear dangers require concerted diplomatic action from the vast majority of states convinced that nuclear weapons pose an existential threat to humanity. In the words of the SSOD I Final Document, their objective must be the implementation of *effective measures (...) to remove the threat of nuclear weapons, to halt and reverse the nuclear arms race until the total elimination of nuclear weapons and their delivery systems has been achieved, and to prevent the proliferation of nuclear weapons. At the same time, other measures designed to prevent the outbreak of nuclear war and to lessen the danger of the threat or use of nuclear weapons should be taken*<sup>102</sup>.

The X Review Conference of the NPT, now convened for August 2022, constitutes the main multilateral forum where like-minded State Parties should exercise their diplomatic leadership in the short term. As at the time of the Treaty's inception, the most urgent priorities today are the containment of a new nuclear arms race, the arrest of further nuclear proliferation and the prevention of nuclear risks. In spite of all difficulties arising from the deteriorating security environment, States Parties must -at the very least- preserve the integrity of the Treaty and reaffirm the *acquis* of the Review Process as contained in the Final Documents of the Sixth (2000) and Eight (2010) Review Conferences, particularly the plan of action of the latter<sup>103</sup>.

In 2010 all NPT State Parties reaffirmed *the unequivocal undertaking of 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* while, at the same time, expressing their *deep concern at the catastrophic humanitarian consequences of any use of nuclear weapons* (reaffirming) *the need for all States at all times to comply with applicable international law, including international humanitarian law*<sup>104</sup>. These are politically binding undertakings -adopted by consensus- committing both nuclear and non-nuclear weapon states. Disarmament provisions contained in article VI remain fully in force and, as we have seen, the NWS reaffirmed their commitment to them last January (see footnote 39).

In the current security environment, a measure of strategic patience may be required to advance the 2010 Action Plan without renouncing to its ambition: crisis has always spurred diplomatic energy, as proven by the disarmament and arms control initiatives flourishing after the 1962 Cuban missile crisis. One of them was the Tlatelolco Treaty, creating the first nuclear-weapon free zone in a densely populated region of the world, and demonstrating the potential for global diplomatic leadership that exists in the South.

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102 Ibid. paragraph 20.

103 NPT, Sixth Review Conference, 2010. Document NPT/CONF.2010/50 (Vol. I).

104 Ibid. p. 19, Conclusions and recommendations for follow-on actions. A. Principles and objectives: paragraphs ii. and v.

**The concept of “General and Complete” Disarmament.** The NPT’s Article VI is drafted in a way pointing to concerted political action leading to the broad concept of peace envisaged in the United Nations charter: *Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control* (emphasis added).

The negotiations in good faith prescribed to terminate the nuclear arms race and achieve nuclear disarmament are set in the context of “general and complete disarmament” (GCD), a construct elaborated as the “ultimate strategic goal of the United Nations”<sup>105</sup>. General and complete disarmament is certainly not a utopic goal to eliminate all weapons, but an imperfect -and thus misinterpreted- formulation to capture the idea of achieving, **progressively**, a state of undiminished security for all, **at the lowest possible level of armaments**<sup>106</sup>. This idea finds its origin in the famous “Fourteen Points” posited by President Woodrow Wilson to frame peace after World War I. It was incorporated in article 8 of the Covenant of the League of Nations<sup>107</sup> and has inspired the peace and security work of the United Nations for decades<sup>108</sup>.

In such environment of **undiminished security for all**, United Nations member states would nevertheless retain military capabilities to ensure their *inherent right of individual or collective self-defence*, recognised by article 51 of the UN Charter. Moreover, Member States should **maintain armed forces** for combined international enforcement operations to comply with their obligation to contribute to those coercive actions authorised by the UN Security Council to maintain international peace and security and redress acts of aggression, as provided by articles 42, 43 and 45 of the Charter.

Article 42: Should the Security Council consider that measures provided for in Article 41 would be inadequate or have proved to be inadequate, **it may take such action by air, sea, or land forces** as may be necessary to maintain or restore international peace and security. Such action may include demonstrations, blockade, and **other operations by air, sea, or land forces of Members** of the United Nations.

Article 43, 1: All Members of the United Nations, in order to contribute to the maintenance of international peace and security, **undertake to make available to the Security Council**, on its call and in accordance with a special agreement or agreements, **armed forces**, assistance, and facilities, including rights of passage, necessary for the purpose of maintaining international peace and security.

105 UNODA, United Nations Office of Disarmament Affairs Occasional Papers. N° 28: “Rethinking General and Complete Disarmament”, october 2016, Foreword by the Under-Secretary-General, High Representative for Disarmament Affairs.

106 UNGA, Final Document of the First Special Session dedicated to Disarmament (SSOD-I). Document (A/S-10/2), paragraphs 22, 29 and 49. [Final document of the Tenth Special Session of the General Assembly. \(un.org\)](#)

107 UNODA. Op. Cit. p. 3.

108 UNGA. Op. Cit. paragraphs 109, 110, 111.

Article 45: In order to enable the United Nations to take urgent **military measures**, Members shall hold **immediately available national air-force contingents for combined international enforcement action**. The strength and degree of readiness of these contingents and plans for their combined action shall be determined within the limits laid down in the special agreement or agreements referred to in Article 43, by the Security Council... (Emphasis added).

It is obvious that these *air, sea, or land forces* envisaged by Chapter VII of the Charter ought to be **maintained** in a state of readiness underpinned by timely and adequate procurement of lawful means of defence, plus the level of expertise and training which can be ensured only by professional armed forces furnished by Member States. But General and Complete Disarmament also implies that these national armed forces -kept to preserve self-defence and collective security- should never deploy weapon-systems forbidden by Disarmament and International Humanitarian Law (such as weapons of mass destruction or inhumane weapons) and observe contingent and equipment levels compatible with an environment of cooperative security and global stability, where arms races have no place.

All states have incentives to promote GCD as a universal security paradigm but, especially, nations from the South, disproportionately affected by global scourges such as climate change, pandemics and famine which require massive financial remedies. As we have seen, nuclear modernisation and expansion programmes consume vast resources which could be better employed, for instance, in the implementation of Sustainable Development Goals.

The 2018 UN Secretary General's Agenda for Disarmament, titled "Securing our common future"<sup>109</sup>, states that "**General and complete disarmament**", **a term coined nearly a century ago, remains the ultimate objective of the United Nations in the field of disarmament. It is now critical for the international community to reconceptualize this fundamental goal so that disarmament actions, making use of all the measures available in the tool box, clearly contribute to human, national and collective security in the 21st Century**

Following this powerful line of advocacy, the Centre for International Studies and Diplomacy at the SOAS<sup>110</sup> of the University of London and the Geneva Centre for Security Policy -with the blessing of the Holy See- have proposed to include GCD as a prominent substantive issue in any Final Document or report emerging from the (Tenth) NPT Review Conference, dedicating specific time to the elaboration of approaches for GCD. Furthermore, the Preparatory Committee to the 2025 Review Conference should devote at least one meeting of its sessions before the 2025 (Eleventh) Review Conference to the relationship of the NPT to GCD. Such proposal have been formulated in the context of "The Strategic Concept for the Removal of Arms and Proliferation" (or SCRAP initiative), offering the *weapons equivalent of the UN Framework on Climate Change*<sup>111</sup>.

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109 UNITED NATIONS Secretary General. "Securing our Common Future": an Agenda for Disarmament. Office for Disarmament Affairs, 2018 [\\*sg-disarmament-agenda-pubs-page.pdf](#)

110 School for Oriental and African Studies, University of London.

111 SCRAP Weapons: Strategic Concept for the Removal of Arms and Proliferation – Realising Global Disarmament, webpage [FAQ – SCRAP Weapons – Strategic Concept for the Removal of Arms and Proliferation](#)

In my view, and without prejudice to its attachment to and work with the NPDI and other like-minded groups such as the De-Alerting Coalition<sup>112</sup>, Chile ought to associate itself to these initiatives, consistent with its foreign policy and the activity displayed in all disarmament and non-proliferation fora, including the NPT review process, from 1990 and even before.

**Nuclear risks and the X NPT Review Conference.** The concept of nuclear risk has been present in the disarmament multilateral discussion for years, but now it has acquired pressing relevance. As we have seen in this essay, there is growing momentum for both horizontal and vertical proliferation, while disruptive technologies multiply the possibility of nuclear miscalculation or malicious interference. The invasion of Ukraine, complete with the Kremlin’s reiterated nuclear sabre-rattling to deter a decisive Western intervention, has exacerbated the possibility of tactical or “limited” use: an irresponsible way of opening a Pandora’s box of untold humanitarian consequences, even leading to the demise of humankind, as poignantly warned by Ambassador Sérgio Duarte, former UN Under-Secretary-General and High Representative for Disarmament<sup>113</sup>.

The need to spotlight the consideration of nuclear risk at the X Review Conference has been promoted, among others, by **the NPDI** and a more recent, like-minded group of States Parties to the NPT coalescing in the “Stockholm Initiative for Nuclear Disarmament”<sup>114</sup>. In their latest set of recommendations for the Review Conference, NPDI members propose a series of measures intended to curtail nuclear risks, such as:

Sustained efforts to enhance **transparency on nuclear arsenals**; Pursuit of early conflict prevention and **resolution** in relation to nuclear threats; Intensified dialogue, both among nuclear-weapon States and between nuclear-weapon States and non-nuclear-weapon States, **on risk perceptions, nuclear doctrines, and forces postures**; Declaratory restraint and efforts to reduce perceived ambiguity and entanglement **between nuclear and conventional weapons**; Negative security assurances; **De-alerting** and reductions in the operational status of nuclear weapons systems; Notification and data exchange agreements; **Minimizing vulnerabilities related to potentially disruptive new technologies and**

112 A multilateral grouping comprising Chile, Malaysia, New Zealand, Nigeria, Switzerland and Sweden, created to advance the reduction of the operational status (degree of alert) of nuclear weapons. The aim is taking strategic nuclear weapons from “hair trigger” level –or launch-on-warning- which is inherently prone to an accidental nuclear exchange as a result of miscalculation, accident or intentional interference with nuclear-weapon command and control systems.

113 DUARTE, Sérgio. “The end of (human) history?”. IDN-InDepthNews, 8 April 2022. *The abrupt shift in international relations caused by Russia’s aggression to Ukraine as a response to what it sees as a threat posed by the eastward expansion of NATO shook the whole world and complacency gave way to fear and anxiety. Suddenly, the use of nuclear weapons seemed a real and present danger, not only for those directly engaged in the hostilities, but for the whole world. The prospect of escalation brought the fear that even the use of relatively low-yield tactical atomic devices in the battlefield would spark an inevitable chain of events with ever more powerful explosions culminating in the utter extermination of combatants and the civil population everywhere.* (Emphasis added). [The End Of \(Human\) History? - IDN-InDepthNews | Analysis That Matters](#)

114 GOVERNMENT OFFICES OF SWEDEN. The Stockholm Initiative for Nuclear Disarmament, 23 december 2021. [Stockholm Initiative for Nuclear Disarmament - Government.se](#)

**cybercapacities; Enhanced military-to-military contacts and the establishment of crisis-proof communication lines** and risk-reduction centres; **Prevention of unintended or accidental use;** Further investigation of operational uncertainties, pathways to nuclear use, **sharing of best practices and de-escalation pathways**<sup>115</sup>.

The **Stockholm Initiative**, comprising Argentina, Canada, Ethiopia, Finland, Germany, Indonesia, Japan, Jordan, Kazakhstan, the Netherlands, New Zealand, Norway, the Republic of Korea, Spain, Sweden and Switzerland, has submitted a dedicated “Nuclear risk reduction package” (NRRP)<sup>116</sup>, elaborating in depth on the problem. The conceptual foundation of the package is set in the following, sobering paragraphs:

International concern about nuclear risks has come to the forefront in recent years, and urgent action is needed to implement risk reduction measures. Various developments and trends substantiate that assessment, notably a deteriorated international security environment, great-power strategic competition, **stress on the nuclear arms control, disarmament and non-proliferation architecture, the emergence of regional tensions and the potentially destabilizing implications of several technological developments.**

There now exists a broad range of research on nuclear risks. The humanitarian, economic, environmental and societal consequences of nuclear weapon detonations are better understood than they were before. Likewise, **there is now greater awareness about the concrete aspects of the risk of using nuclear weapons, be it intentional or accidental or through miscalculation, misperception or unauthorized use, including by non-State actors.** That growing understanding only underscores the urgent need to address nuclear risks<sup>117</sup>.

We can see that four members of the Stockholm Initiative partake membership in the NPT and such overlapping only reflects the flexibility and adaptability of multilateral formats, especially those result-oriented. And as usual in multilateral diplomacy, co-sponsors of recommendations such as the NRRP invite other States Parties to join in their advancement. I see no difficulty for Chile to add its name to the proponents of the Package, considering its added value, particularly its encouragement of research, analysis, education and awareness and the launching of a follow-up process, including the *establishment of an appropriate United Nations body, such as a group of governmental experts or an open-ended working group, with a mandate to take the issue forward in a structured manner, with*

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115 RECOMMENDATIONS FOR CONSIDERATION BY THE TENTH REVIEW CONFERENCE OF THE PARTIES TO THE (NPT). Joint working paper submitted by the members of the Non-Proliferation and Disarmament Initiative (Australia, Canada, Chile, Germany, Japan, Mexico, Netherlands, Nigeria, Philippines, Poland, Turkey and United Arab Emirates), document NPT/CONF.2020/WP.10 21-13591 5/11 [WP10.pdf \(reachingcriticalwill.org\)](#)

116 A NUCLEAR RISK REDUCTION PACKAGE. Working paper submitted by the Stockholm Initiative, supported by Argentina, Belgium, Canada, Denmark, Ethiopia, Finland, Germany, Iceland, Indonesia, Japan, Jordan, Kazakhstan, Luxembourg, the Netherlands, New Zealand, Norway, South Korea, Spain, Sweden and Switzerland. Working Paper NPT/CONF.2020/WP.9 [WP9.pdf \(reachingcriticalwill.org\)](#)

117 Ibid. paragraphs 2 and 3.



*a view to identifying and elaborating effective nuclear risk reduction measures*<sup>118</sup>. (Emphasis added).

## Conclusion

We feel confident to assert that our examination of current developments, phenomena and tendencies has proven the notion of “stress besetting the nuclear order” (our working hypothesis). The Russian invasion of Ukraine has brought a level of anxiety not experienced since, probably, the 1962 Cuban missile crisis. As signalled by *The Economist*, *Russia’s invasion of Ukraine has eroded the nuclear taboo*<sup>119</sup>.

But, as highlighted in these pages, the renewal of the nuclear arms race -both qualitative and quantitative- plus a proliferation drive “tempting” even countries firmly aligned with nuclear disarmament such as Australia, Japan and South Korea intermingle with the spread of disruptive technologies **and** the illusion of “usable” nuclear weapons had increased the risk of a nuclear detonation well before February 24 this year.

Such grim perspective requires intensified diplomatic efforts aimed at prevention and remedy from all peace-loving nations but, mainly, from the global South, since the effects of any nuclear catastrophe (and even a single detonation **is** a catastrophe) would pound on developing nations with greater damaging consequences. In particular, the diversion of immense financial resources to the nuclear race appears as a fateful betrayal of the collective imperative to face climate change and pandemics lurking around the corner, among other contemporary challenges to human security.

Chile and Latin America and the Caribbean are politically well positioned to rank in the forefront of nuclear disarmament and non-proliferation. We stand on a high moral ground with regards to nuclear disarmament, the Tlatelolco Treaty being a lauded building block for the eventual implementation of the NPT’s Article VI. Moreover, our region –along with the African Union– gave its formal support to the United Nations General Assembly mandated process leading to the Treaty on the Prohibition of Nuclear Weapons (TPNW)<sup>120</sup>.

Multilateral diplomacy generates space for global leadership stemming from dedicated, professional action, ideally through like-minded coalitions concerting middle and small power efforts. Chile has made a reputation as bridge-builder and consensus articulator, working with cross-cutting groupings such as the NPDI. The current, alarming situation demands a redoubled diplomatic thrust to revitalise the nuclear order and reaffirm the goal of nuclear disarmament, in the context of a wider concept of peace, built upon human security.

118 Ibid. paragraphs 10 and 11.

119 THE ECONOMIST. “Russia’s invasión of Ukraine has eroded the nuclear taboo”: this war is unlikely to go nuclear. But it is increasing the risk that future conflicts will. 2 June 2022 [Russia’s invasion of Ukraine has eroded the nuclear taboo | The Economist](#)

120 The Heads of State and Government of the Community of Latin American and Caribbean States (CELAC, in Spanish) adopted Special Declarations in support of the TPNW process at their 2016 Quito, and 2017 Punta Cana Summits. The Organisation for the Proscription of Nuclear Weapons in Latin America and the Caribbean (OPANAL) was the only regional organisation actively intervening in the 2017 United Nations Diplomatic Conference that adopted the TPNW, chaired by Ambassador Elayne Whyte, a Costa Rican diplomat. This author served both as Vice-President of the Conference and Facilitator.

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