

Inquiry 2017 - 2018
The Future Nuclear Imperative
April 5-7, 2018

Dear Delegates,

Nine countries currently control at least 15,000 nuclear weapons. During the Cold War, the superpowers amassed nuclear arsenals containing the explosive power of one million "Little Boys", the atomic bomb dropped on Hiroshima. More than two decades after the fall of the Berlin Wall, the US and Russia still control almost 14,000 nuclear weapons. One Hiroshima-size weapon alone, detonated in London's Trafalgar Square in the middle of a workday, would cause an estimated 115,000 fatalities and 149,000 injuries.. A regional nuclear war between Pakistan and India could lead to 20 million local casualties and more than one billion global fatalities from the direct impact on the world's atmosphere and agricultural supply.

Faced with this global crisis, we applaud the willingness of the delegations gathered here to engage with each other to seek resolution and to help ensure a lasting peace, perhaps even a nuclear-free world.

Our discussions for this conference have been divided into seven major topics: Sovereignty, Security, Diplomacy, Terrorism, Economics, Climate and Energy, and Disaster Preparedness.

Just this year, the *Bulletin of Atomic Scientists* – the keeper of the Doomsday Clock – moved the clock to two to midnight, its highest level since the height of the Cold War in 1953. The escalation of rhetoric and the access to both nuclear technology and delivery mechanisms are responsible for this renewed urgency and concern.

During his presidential campaign, Donald Trump indicated he was in favor of the nuclear proliferation of Japan, South Korea and Saudi Arabia. This position is in stark contrast to the terms of the Nuclear Non-Proliferation Treaty (NPT), a treaty the US has supported for almost fifty years.

Posing another threat to nuclear security are non-state actors and international terrorist organizations. Suleiman Abu Gheith, an Al-Qaeda spokesman, has repeatedly issued threats to kill millions of Americans with a nuclear device. Bomb-making manuals have been recovered from Al-Qaeda safe houses in Kabul. There is also the threat of terrorist organizations procuring a 'dirty bomb' from 'rogue' states. How should the global community, especially nuclear states, approach this threat that challenges sovereignty and borders?

Are the theories of Deterrence and Mutually Assured Destruction (MAD) still relevant in the multipolar world of the 21st century? Were they responsible for the lack of conventional warfare between the nuclear powers since the end of the second world war? Commentators argue that these theories are

becoming less relevant in the new liberal age of information and worldwide interconnectedness. What might take their place?

And what challenges do unilateral disarmament pose for states? While South Africa may not have endured any repercussions from its de-nuclearization, can the same be said for Libya and Ukraine?

The threat nuclear weapons pose is not limited to human casualties stemming directly from an attack. Even an unintentional nuclear accident would be disastrous for the Earth's climate, spiking radiation levels and sending tons of smoke into an already fragile atmosphere. Does the pursuit of nuclear energy contribute to our challenges or reduce the pressure on our environment?

Finally, we urge delegates to think about the role of nuclear weapons and nuclear energy going forward. Will nation-states pursue nuclear weapons with the same vigor and resolve as we have seen over the past seventy years? Is it possible to de-nuclearize the planet, and what type of trust-building measures would that entail? Is this a global problem or a state-centric problem?

We are asking you to revisit the NPT, to develop an approach and treaty suitable for the challenges the world now faces. There are current examples – from the Korean Peninsula to Iran to the flashpoint of Kashmir – that can offer examples of how your ideas might play out. Each committee will be contributing to the overall treaty; the questions and challenges you have been asked to address will build into one treaty.

We look forward to your deliberations next month. Attached are the foundational questions for our discussions.

Sincerely,

The Nuclear Urgency Keystone Enterprise (NUKE)

Liam Flaherty, Uzair Sattar, Hayley Oliver-Smith, Carlos Irisarri

Committee on Sovereignty

Sovereignty has been enshrined in our definition of countries. It has been a critical component of the United Nations Charter, referenced again and again from times of conflict to migration to human rights. Yet, there are issues from climate change to trade to diseases to terrorism that challenge the concepts of sovereignty, in many cases forcing states to look and work beyond their borders.

In this struggle between the global commons and state sovereignty, where does nuclear proliferation sit? More than nearly any other issue, the politics of nuclear proliferation most concretely question the legitimacy of unabated national sovereignty. Would a world of universal nuclear proliferation be unstable and exacerbate geopolitical tensions?

The opening of the Treaty on the Non-Proliferation of Nuclear Weapons states, "Considering the devastation that would be visited upon all mankind by a nuclear war and the consequent need to make every effort to avert the danger of such a war and to take measures to safeguard the security of peoples, Believing that the proliferation of nuclear weapons would seriously enhance the danger of nuclear war, In conformity with resolutions of the United Nations General Assembly calling for the conclusion of an agreement on the prevention of wider dissemination of nuclear weapons..." and it continues to the end of the preamble with "...Desiring 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 pursuant to a Treaty on general and complete disarmament under strict and effective international control, Recalling that, in accordance with the Charter of the United Nations, States must refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the Purposes of the United Nations, and that the establishment and maintenance of international peace and security are to be promoted with the least diversion for armaments of the world's human and economic resources..."

Just in the preamble, the NPT acknowledges the competing claims of sovereignty and the international community, as well as the pursuit of peace and security. One of the most fundamental issues in organizing international treaties is finding a compromise

between state sovereignty and international authority. This committee is tasked with contending with these competing claims.

The parts of the Treaty that you are asked to develop are:

- how will this new treaty balance sovereignty and the international community? Does the Responsibility to Protect doctrine offer any possible solutions? How can you build on the UN Charter? Or other regional charters, such as the Organization of American States?
- does a new international institution – such as the International Criminal Court – need to be created to contend with these specific challenges, from international law to the technical realities of nuclear weapons, etc. Or should this fit into current international institutions? Should there be regional bodies?
- how will a new treaty on nuclear proliferation manage intervention, from military to verification? What should the rules be for those who sign on to the new treaty as well as for those that do not? What are the actual thresholds that would call for intervention, and what are the possible consequences and repercussions of that intervention? At what point is intervention legitimate? Is this mechanism multilateral or unilateral?
- how might sovereignty be applied to contending with non-state actors and black market trafficking?

Committee on Security

Fareed Zakaria has argued that we are living in the most peaceful age in human history. Niall Ferguson has countered this argument by stating that one nuclear attack--and the chain of attacks that will follow--will render this statement false. Nuclear weapons can change the security equation of the world more quickly than any other weapon of war.

Historically, nuclear weapons are believed to have successfully deterred war. No nuclear powers have fought a conventional war with each other after they have proliferated, though there have been skirmishes. Did nuclear weapons make their borders safer?

Nuclear weapons are unpredictable in nature. Proponents of nuclear deterrence will point to the Cold War by stating that the very reason war was averted was because the US and the Soviet Union possessed nuclear weapons. However, the world watched in horror as Pakistan and India had a cross-border skirmish in Kargil in 1999 that led to over a thousand casualties. It was one of the very first instances of possible all-out conventional warfare between two nuclear states.

Members of this committee will be tackling the question of whether or not nuclear weapons make this complex world a safer place. Committee members will have to consider the following issues, keeping in mind the long-term security interests not only of aspiring and current nuclear powers, but the international community as a whole and particularly developing nations whose security interests do not currently dominate the nuclear narrative.

Members of the committee will also consider current threats, from the provocations of North Korea to the Joint Comprehensive Plan of Action on Iran – what cues do these give as to what needs to happen?

The parts of the Treaty that you are asked to develop are:

- in a multipolar, world where states where many issues challenge states' control of their borders, what strategies are relevant and likely to be used – from mutually assured destruction to brinkmanship – and how can the security section of a treaty best address today's dynamics, respecting both national security and global security? Are countries safer with nuclear-capability or without them? Are nuclear weapons the key to international stability?
- would there be repercussions for a state that initiated the use of nuclear weapons? Would there be a multilateral or unilateral response to a state that used nuclear weapons? What would be the security obligations of the international community to states that were attacked?
- how would states contend with failed or failing states that have acquired some degree of nuclear proliferation?
- what security needs are necessitated by the threat of non-state actors?
- what is the ultimate security goal of the treaty, controlled proliferation? Disarmament? What is realistic? To what level will countries be willing to disarm? Could countries disarm to the point that nuclear weapons have no impact on strategic security strategy?

Committee on Diplomacy

The NPT could be considered one of the most important diplomatic agreements of the last century. It was a diplomatic effort to control the most devastating and destructive weapon of war.

Officially, under the treaty, there are five nuclear states - the permanent five members of the Security Council: the United States, Russia, the U.K., France, and China. However, there are several other states – some of which have been signatories at one time or another to the NPT – known to be in possession of nuclear weapons, including India, Pakistan, Israel, and North Korea.

While only five states are officially recognized as nuclear states, there are 190 parties to the treaty. Article IV of the treaty states that non-weapon states that have signed the treaty, in return for their compliance, have the right to participate in a full exchange of equipment, materials and scientific and technological information for peaceful energy use. It encourages all parties to cooperate to develop more applications of energy for peace. Is this still viable in light of the rise of non-state actors? Do additional measures need to be negotiated to include more verification strategies?

As political tensions threaten to overwhelm the international space, there is a growing need for diplomatic collaboration that promotes the shared interest of all parties to mitigate security risks and that allows for the development safe and sustainable sources of energy. Previous diplomatic efforts to prevent non-proliferation have been led by the Permanent Five members of the Security Council; now, emerging powers are seeking a place at the table.

In 1994, following the dissolution of the Soviet Union several years earlier, the US, UK, and Russia assured Ukraine that they would guarantee Ukraine's safety if it gave up its nuclear arsenal. The major powers said that they were motivated by only the good of humanity in wanting to prevent nuclear proliferation. Today, that decision may be coming back to haunt the Ukrainians.

One of the core questions of the treaty, deciding which states have the right to proliferate, will be discussed in these meetings.

There is a daunting complexity in actually implementing the agreements made here, and this, also, has to be addressed.

The parts of the Treaty that you are asked to develop are:

- balance of power – is there a legitimate or illegitimate monopoly on proliferation by the current nuclear powers? Who should be at the table? how should states without nuclear weapons be incorporated and protected? How can larger states be held to account?

- are there consequences for those states that choose not to be a part of this new treaty or that pursue nuclear weapons outside of the treaty? What diplomatic enforcement mechanisms can and should be put in place? Will the International Atomic Energy Agency have a role? Will a new body be created to consider and adjudicate these issues?
- how will changes to the treaty be discussed into the future? Do future considerations have to be brought by states or are there avenues – as in the International Criminal Court – for citizens or sub-national organization to bring issues to the fore?
- what diplomatic arenas and tools will be needed in response to a nuclear attack? What type of intelligence-sharing is possible? Will there be a protocol to determine responsibility? How will national and international political communities interact with the scientific communities? (contending with the fallout will be the responsibility of the Disaster Preparedness Committee)

Committee on Terrorism

The mitigation of the security risks of terrorism constitute one of the core elements of national security policy in the contemporary state. The violence and devastation that many of this conference's participating countries have seen at the hands of terrorist actors is quite daunting. The potential consequences, however, of any one of these terror acts being conducted with some sort of makeshift nuclear weapon is incomparable. This would have such severe consequences that it is incumbent upon all of us to do our best to prevent it from happening. How can one ensure that this fear never becomes reality? How can and should one incorporate non-state actors into international treaties? It is no easy task.

This committee is to focus on access, intelligence sharing and response. How can the global community ensure that non-state actors cannot access material that would allow them to create nuclear weapons? How can the global community ensure that countries do not collude with or support non-state actors in their goals of securing a "dirty bomb" or worse? How can the market of this material be regulated and what enforcement mechanisms need to be devised for the 21st century? Will national intelligence agencies cooperate in this regard? Will there be intelligence sharing? What are the incentives behind those (states and individuals) who sell nuclear materials, technology and know-how? What are the flaws in the current non-proliferation regime? Are the enforcement mechanisms for the NPT sufficient?

Perhaps most difficult of all, how will terrorist threats that pose a potential nuclear security risk be dealt with? Will action be multilateral? What are the requisite steps that the international community ought to take during such a crisis?

The parts of the Treaty that you are asked to develop are:

- what system can be included in the treaty to regulate the buying, selling, and transferring of all things related to nuclear energy and weapons operations, including nuclear material and technology? Do new developments in software and cyber security offer a better way to track information? Should there be a policing mechanism to prevent black market nuclear exchange? And as states disarm, who should oversee the destruction and disposal of their materials and technology as well as future activities of their scientists?
- as many countries learned after 9-11, intelligence sharing to combat terrorism became essential – should a new treaty include required intelligence sharing? What might that look like? Would the initiatives NATO put in place post-9-11 – the Terrorism Threat Intelligence Unit followed by the Intelligence Unit – provide a model to work from?
- what should be the roles of the intelligence community and the military in addressing the potential of nuclear terrorism? Will there need to be institutionalized means of cooperation and collaboration between intelligence units and national militaries? Does there need to be a specialized, international force established that can rapidly respond to threats? What professions would such a force include? Is it a domestic issue or a transnational issue, or both, and does that change the response?
- what, ultimately, would a framework of collective action to deal with crises of nuclear weapons getting into the hands of non-state actors look like?

Committee on Climate and Energy

As we increase our understanding of the threat of climate change poses to human beings and the environment, it becomes increasingly important to make sound environmental thinking a part of every diplomatic agreement. Though the threat of nuclear war may dominate the political realm, there are many other elements to consider about potential nuclear activities, be they for weapons or for energy.

Firstly, what must be addressed is the potential environmental cost of nuclear conflict. Scientists say that nuclear detonations pose the single largest threat to the Earth's environment. Sample studies have shown that even a small-scale nuclear war would have devastating consequences for the climate, not only in the affected regions but on

a global scale, with damaging effects lasting more than a decade. In order to avoid a nuclear winter, there must be significant diplomatic energy put into controlling the use of nuclear technology and to preventing the spread of nuclear weapons.

However, as the need to power our world with more sustainable energy resources has never been greater, many look to nuclear power as a clean and powerful option. Nuclear power is recognized as one of the cleanest forms of energy, producing no air pollutants or greenhouse gases, and the potential benefits of nuclear technology extend to the energy, agriculture, medicine, food preservation and other industries. The benefits of these energy forms are clear and extend to all nations, especially those who have the most to lose from further exploitation of fossil fuels and global warming.

As Climate and Energy policy makers who are in close contact with leading scientists and political leaders alike, it is your job to negotiate the terms of a new treaty that ensures access to sustainable and peaceful power technologies without increasing the risks posed, either environmentally or through weaponization.

The parts of the Treaty that you are asked to develop are:

- how can the international community balance the civilian and military uses of nuclear energy?
- what would a safe access plan that allocates a budget to enforcement of nuclear regulations, protection of nuclear facilities against sabotage and attack, and safe disposal of waste look like?
- should there be an enforceable, global regime on environmental protection and nuclear waste? What would that mean for nuclear testing?
- should there be a global fund established to address environment emergencies from nuclear waste? How would it be funded?
- should there be an international collaboration or consortium of scientists and urban planners playing a creative role in preparing for the worst? What innovations

Committee on Economics

What are the economic considerations for countries when thinking about nuclear energy and weapons? For those countries

The world has become more urbanized, more economically interdependent and because most national economies are today heavily dependent on infrastructures that rely on electricity and electronics, an explosion in or near an urban area can damage

infrastructure in a way that has serious negative implications for an entire national economy and beyond. The longer-term consequences of a nuclear detonation and response costs would place a heavy burden on public finances, with a highly uncertain prospect for economic recovery. Furthermore, through disruption of global supply chains and through other propagation mechanisms (such as through international financial markets) a nuclear explosion can have global ramifications.

Nuclear weapons present a very high socio-economic risk that is incompatible with key sustainable development goals.

Modern economies, and especially modern cities are heavily dependent on functioning infrastructures, such as communication, transport, water, electricity, and fuel networks. Because the physical and social fabric of developed economies is sustained by a complex network of interlocking and interdependent infrastructures, disruption in any one system can affect connected systems. Such cascading failures have been observed in natural disasters and industrial accidents. For instance, during the Mumbai 2005 floods, the mobile phone network collapsed due to a breakdown in the transport system.

Economies that are dependent on extensive electricity-driven infrastructures are especially vulnerable to the electromagnetic pulse (EMP) created by a nuclear weapon explosion. Due to the pervasive use of electronics to control, communicate, compute, store, manage, and implement nearly every aspect of infrastructure systems, an EMP, when coupled into sensitive electronics, has the capability to produce widespread and long lasting disruption and damage to critical infrastructures, creating the possibility of long-term, catastrophic consequences.

Another economic consideration is that obtaining nuclear weapons is a way of getting reliable defensive capability on the cheap, at least much less expensively than having a full standing army with updated military capability. Nuclear weapons can be appealing to small, relatively powerless countries. Developing its nuclear capability hasn't hurt North Korea's ability to keep much larger powers at bay. Pakistan's status as a nuclear power means it faces no true threat of invasion from foreign powers, even large ones. How can the financial incentives of acquiring nuclear weapons be reduced?

The parts of the Treaty that you are asked to develop are:

- should there be a global plan, bringing together computer scientists, national banking industries, big tech companies, etc., to provide back up systems to reduce the impact of and/or insulate system from an EMP?
- what economic/development incentives could be offered to countries that voluntarily reduce or relinquish their nuclear industries? How could the nuclear industry be re-purposed – from technology to scientists – to environmental or economic projects?
- what would an effective sanctions regime look like that addresses countries that violate the new treaty, countries that use nuclear weapons; countries that threaten the environment with their methods of nuclear waste disposal; etc? How would the treaty ensure enforcement?

Committee on Disaster Preparedness

As representatives of the leading powers of the world in the 21st century and those nations that have most at stake over the possible nuclear crisis, it is your imperative to prepare for the worst. Under the current NPT, non-nuclear states have found various methods to circumvent international law and develop military-oriented, nuclear programs. Decisions at the government level affect the security of civilians who are not incorporated into the discussion. Yet civilian lives will be the ones most directly affected by nuclear disaster.

Many national economies and the world economy as a whole are arguably more vulnerable to the negative economic impact of a nuclear weapon detonation than they were in 1945. A nuclear weapon explosion in an open economy also risks having regional and global ramifications that could set back hard-won development gains and worsen poverty.

The explosion of even a single, low-yield nuclear weapon, whether intentionally or by accident, can cause massive loss of life and significant material destruction directly through blast, heat and other effects. These effects will not be constrained by national borders, and will affect states and people in significant ways, regionally as well as globally.” This was one of the key conclusions that emerged from discussions at the first Conference on the Humanitarian Impact of Nuclear Weapons hosted by Norway in March 2013.

A nuclear explosion would not only affect physical infrastructure directly through blast, heat and the electromagnetic pulse. It could also lead to the complete and nation-wide

collapse of public services infrastructures, which would have implications beyond national borders.

In most countries, electrical power is necessary to support other critical infrastructures, including the supply and distribution of water, food, fuel, the dissemination of information, financial transactions, and the provision of emergency and government services, and all other infrastructures supporting the national economy and welfare.

The parts of the Treaty that you are asked to develop are:

- how will the Treaty ask/require countries to respond in the case of a nuclear attack/exchange/war? How can the Treaty institutionalize a plan that guides the response of the affected government as well as the rest of the global community? How will aid be provided? Will there be a security umbrella for the country attacked? How will the migration of people be handled, including relocation, transportation, temporary citizenship, distribution, etc.? This is creating a mechanism for a short-term response that also includes providing healthcare and goods, etc for those displaced.

As an Addendum to this, the committee is asked to identify at-risk areas for a limited nuclear attack/exchange and develop the outline of a plan for contending with each (eg, if one of the areas is the Korean Peninsula, how should the region/world respond, from security to global health to migration to the environment to the economy)

- what global health measures and training should be put in place prior to any catastrophe given the significant impact of past accidents and attacks?
- should there be a both a fund and a plan for the reestablishment of the the earth's ecosystem or perhaps simply the containment of secondary factors such as radiation? How will global scientists be involved both in a preventive period as well as in the aftermath of a disaster?
- in the event of an attack or accident, how can the situation be de-escalated quickly? What might a contingency plan to bring actors back to the table look like? Are there rules that can be ensconced in the treaty that will bind all actors to partake in diplomatic talks?