



## Report of the 10th International Student/Young Pugwash (ISYP) Conference

**Astana, Kazakhstan, 23-24 August 2017**

This report summarizes the proceedings and discussions of the 10th International Student/Young Pugwash (ISYP) conference, “Nuclear World Order: Global and Regional Security Issues and Prospects for Cooperation,” held in Astana, Kazakhstan on 23-24 August 2017. The conference included 32 participants from 20 countries who presented papers on a broad range of subjects: measuring disarmament progress; interplay between disarmament and non-proliferation objectives; future of deterrence; impact of emerging technologies; assessment of regional challenges in North-East Asia, South Asia and the Middle-East, and other issues central to the mission of ISYP and the Pugwash Conferences.

ISYP has been a unique platform that brings new and young voices into the debate. It aspires to inspire and encourage the next generation of both scientists and policy-makers to develop a forward-thinking mentality in addressing the complicated challenges of today.

The following is a summary of the themes and topics covered in the conference. ISYP is grateful for the opportunity to share our thoughts with the Pugwash Conferences on Science and World Affairs. It is our hope that this report and the activities of ISYP will enrich the conversations and actions of the entire Pugwash community. ISYP also expresses its gratitude to the Ministry of Foreign Affairs of the Republic of Kazakhstan for its support for this conference.

### **Measuring Disarmament Progress**

Participants attempted to measure the progress the international community has made on disarmament. A great deal of emphasis was consequently given to the challenge posed by North Korea’s nuclear weapons program, especially as the country continues to provoke the international community through repeated tests of nuclear weapons and their means of delivery. It was noted that significant costs should be levied on North Korea for violating the norms against the testing of nuclear weapons and that of the Treaty on the Non-Proliferation of Nuclear Weapons. Drawing lessons from the experience of Brazil and Argentina, however, it was added that reduction in hostility would be a necessary condition for any resolution of the nuclear crisis in the Korean peninsula. Other factors which could help the international community gain North Korea’s trust, other than assurances that the regime in Pyongyang will not be threatened, are the cultural ties between the North and the South. South Korea, from a cultural perspective, is arguably best suited to constructively talk with the North. Discussions were also held on whether the complete rollback of North Korea’s nuclear program is a realistic precondition for any talks. Most of the participants appeared to agree on freezing North Korea’s nuclear weapons program as the appropriate immediate condition, with the long-term objective of complete rollback, even though that would reflect temporary acceptance of North Korea’s nuclear weapons.

## **Evolving Perspectives on Disarmament and Non-Proliferation**

Deliberations under this theme considered the policies, historical experiences and perspectives of four countries – Indonesia, France, India, and Kazakhstan – on nuclear disarmament and non-proliferation. First, the reasons why Indonesia chose not to support the Proliferation Security Initiative (PSI), a non-binding agreement between more than ten states to engage in non-proliferation and interdiction efforts was presented and discussed. Conversation thereafter focused on the role nuclear weapons play in the French society and politics, wherein acceptance of deterrence and ‘Gaullist’ concepts of nationalism endure. There was consensus that in both France and Indonesia, historical experiences – in Indonesia’s case, colonialism; in France’s case, the two World Wars – partially informs their approach to nuclear issues and the importance of sovereignty in political culture. Participants then considered the evolution of India’s approach to nuclear weapons and its commitment to nuclear disarmament, with its position on the UN Ban Treaty as a case study. It was argued that, despite apparent historical support for global disarmament, India appears to be acting more like other nuclear weapon states – reiterating commitment to nuclear disarmament, while simultaneously increasing reliance on deterrence. Finally, Kazakhstan’s experience with nuclear weapons and nuclear testing was presented, including the efforts to dismantle nuclear weapons test sites and clean up the environmental and humanitarian impacts of the tests which were conducted by the Soviet Union. The ensuing discussion was wide-ranging and it was noted that there are many differences between states but also within the states, such as between the cultures and objectives of bureaucracies, businesses, society and political parties. It is important to bear in mind that the policies of states can change, including towards more co-operative, peaceful approaches.

## **Future of Deterrence**

Under this theme, participants engaged in a discussions on the evolving role of nuclear deterrence in the security calculus of countries that possess nuclear weapons. Naturally, discussion focused on the Trump administration’s upcoming Nuclear Posture Review (NPR). In order to draw lessons from previous Nuclear Posture Reviews, an assessment of the 2010 Nuclear Posture Review during the Obama administration was made. The panel discussed the contention that the 2010 NPR struck balance between the US’ commitment to global zero, inspired by Obama’s Prague speech of 2009, and its commitment to nuclear modernizations and providing credible nuclear extended deterrence to its allies. Concerns were raised on the likely absence of any commitment to global zero in the upcoming NPR and its impact on relations with non-nuclear weapon states. From a broader perspective, it was argued that concerns over nuclear weapons and other weapons of mass destruction often lead to the marginalization of the challenges posed by conventional weapons. Especially with the ongoing modernization of conventional offensive capabilities, the assumed credibility of nuclear deterrence is increasingly challenged and that may lead to further vertical proliferation of nuclear weapons. There was a general consensus on the argument that there is a soft link between nuclear disarmament and conventional disarmament as for some state actors, the former is pre-conditioned on the latter. Ballistic missile defense (BMD) systems offer another example of capabilities that challenge the credibility of nuclear deterrence. To that end, the case of the deployment of the THAAD system by the US in South Korea was substantiated and discussed.

## **Emerging Technologies, Ethics and the Future**

Participants debated ethical concerns in managing challenges posed by emerging technologies such as Artificial Intelligence as well as global issues including climate change and the refugee crisis. The discussion focused on questions of legitimacy, particularly as non-state actors take on central roles in defining regulatory and normative frameworks. Do concepts such as Corporate Social Responsibility allow the largest corporations to define their own rules? Who should be recognized as a stakeholder in strengthening cyber security in nuclear facilities? How can NGOs that support engineering projects among refugees allocate resources in an equal and truly impactful manner? Do appeals to our common humanity in tackling climate change minimize issues of climate justice and the unequal burdens faced by different countries? The discussions highlighted the commonality of core ethical issues underlying this diverse range of global challenges.

## **Regional Security Challenges**

### **- Middle-East**

This working group offered differing perspectives on specific security and societal challenges in the Middle East region. While no consensus emerged across the presentations and discussions, there was some agreement that further dialogue between states and peoples of the region was needed to alleviate lingering tensions. In particular, different political and technical approaches that countries have employed in their peaceful pursuit of nuclear energy were highlighted. It was argued that the United Arab Emirate's path to nuclear legitimacy was not something that was replicable across the wider region. In the case of Iran's nuclear program, disagreements emerged over the US-Iran Joint Comprehensive Plan of Action (JCPOA), and whether the United States or Iran was undermining its effectiveness. Most participants felt that regional scientific collaborations, such as the Synchrotron-light for Experimental Science and Applications in the Middle-East (SESAME), could help alleviate tensions and offer a model of cooperation that transcends political stalemates. However, there was some concern over the wider effectiveness of such networks and if they could be scaled up to a level necessary to enact a lasting cultural change.

### **- North-East Asia**

Deliberations under this theme focused primarily on the North Korean nuclear weapons developments and its destabilizing consequences on the region. Various factors that lead to the acquisition of nuclear weapons by North Korea were acknowledged, including the Korean War, fluctuating US-DPRK relations, and the experiences of states like Libya and Iraq. The DPRK's quest to develop intercontinental ballistic missiles was noted as a game-changer by some, a game-intensifier by others, and as an expected development by the remaining. Besides the nuclear developments, North Korea's cyber capabilities and its attempts to use cyber attacks against its enemies were flagged as issues of great concern for South Korea, Japan and the US. The question was raised on what North Korea's ultimate objectives are and there was general agreement that regime survival is the prime objective. Grounding on realism, four possible pathways in dealing with the North Korean issue were debated: military strike/prevention strike, nuclear proliferation to South Korea and Japan to balance the North Korean threat, secondary

sanctions on China and Russia to exert pressure on them to not provide North Korea with economic assistance, and active engagement with North Korea which would involve a temporary acceptance of its nuclear program. There was consensus that the US's demand of immediate denuclearization for any engagement is unrealistic. Efforts to address mutual interests through lifting economic sanctions and halting military exercises in exchange for freezing the DPRK's nuclear weapons development and testing were discussed at length. The challenge from Pyongyang's past behavior, however, was noted as one of the hindrance in negotiating such a deal.

#### - **South Asia**

Discussions held under this theme offered sobering perspectives on the strategic landscape in South Asia, considering technical, operational, and political aspects. The continuous expansion, quantitative and qualitative, of the nuclear and missile programs of both India and Pakistan was acknowledged. This was flagged as a major concern for several reasons, including the strain it puts on already questionable command and control systems in both states, as well as the interrelated threat it presents to the maintenance of stable deterrence. While it was noted that international norms in command and control have seeped their way into the Indian and Pakistani programs, the constantly threatening nature of the geopolitical environment presents a persistent challenge. Indeed, as was highlighted during the discussions, the presence of another nuclear-armed power – China – has been another complicating factor in reducing India-Pakistan tensions, and in the possibility of moving from the central role of deterrence in the region. Some practical confidence-building measures were offered to shift the narrative, also addressing the lack of communication between the rivals that contributes to the potential for nuclear weapons misuse.

#### **The Future of the MENA Region**

Rather than focus on the challenges of the region that have persisted for decades, discussions under this theme revolved around possible solutions to some key issues of concern that affect countries and populations of the Middle-East and North Africa. In general, participants identified the lack of economic opportunity, weak democratic traditions, and corrupt or ineffective security institutions as factors that contribute to a wide disenfranchisement amongst publics in most of the countries in the region. The challenge posed by the presence of "parallel security" forces, including of the old and new regimes emanating from the Arab Spring turmoil was recognized. The question of who provides security for whom was flagged and the resultant uncertainty was noted as a possible reason why people turn to radical or extremist groups. More specific attention was given to two security problems – Gaza and how the humanitarian crisis there can be alleviated through the construction of a seaport, and the Jordan valley, from where it was suggested that security forces could be withdrawn, leading to the demilitarization of a large portion of the West Bank. In both cases, it was argued that a wider engagement by Israel would benefit its international standing, but that its security needs must simultaneously be addressed in a controlled environment.

#### **The Future of International Institutions**

In fulfilling the objective of nuclear disarmament in the twenty-first century, many challenges lie ahead and this plenary reflected on some of those challenges. The need to supplement the NPT regime with more concerted regional approaches was acknowledged. Though the challenges posed by the presence of nuclear weapons are global, it was noted that they often have roots in regional conflicts and disputes. Noting the presence of numerous regional cooperation mechanisms and institutions, a suggestion was debated to make them more effective on resolving regional conflicts. The case of North-East Asia was examined in the same context. The idea of setting up a legal framework for the denuclearization of the region was pitched and discussed. Another suggestion was made to establish a Track II negotiation channel between involved parties, inviting representatives from their scientific, diplomatic and strategic communities, to sow grounds for inter-state negotiations. While the NPT was recognized for its contribution to limiting the horizontal spread of nuclear weapons, its shortcomings in fulfilling the agenda of nuclear disarmament were flagged. From that perspective, the adoption of the text of the nuclear ban treaty was hailed as a unique step towards realizing a world free of nuclear weapons. In the same vein, the influence civil society organizations have had in furthering the agenda of nuclear disarmament was acknowledged and appreciated. Concerns, however, were raised on how fake news produced by different interest groups could limit the ability of various states as well as civil society bodies to collectively work towards the resolution of conflicts as well as the challenges posed by nuclear weapons. Worse still, fake news could increase hostilities in the world.