



Prospects for Arms Control, Disarmament, and Nonproliferation: 70 years after the Hiroshima and Nagasaki atomic bombings

Report of the 9th International Student/Young Pugwash (ISYP) Conference

Nagasaki, Japan, 30-31 October 2015

This report summarizes the proceedings and discussions of the 9th International Student/Young Pugwash (ISYP) conference, “Prospects for Arms Control, Disarmament, and Nonproliferation: 70 years after the Hiroshima and Nagasaki atomic bombings,” held in Nagasaki, Japan from October 30 to 31, 2015. The conference included 31 participants from 19 countries who presented papers on a broad range of subjects: regional security issues in Asia, Europe and the Middle East; nuclear disarmament; nuclear-weapon-free zones; the importance of non-state actors and institutions in the de-legitimization of nuclear weapons; and other issues central to the mission of ISYP and the Pugwash Conferences.

ISYP has been a unique platform for bringing new and young voices into the debate and inspires encouragement from the next generation of both scientists and policy makers to develop a forward-thinking mentality. Some of the papers will be prepared for possible publication in the dedicated collection of articles to be published at the Moscow State Institute of International Relations, MGIMO University.

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 Sasakawa Peace Foundation for its support of this 9th conference.

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Regional (in)stability

- East Europe and European Security

In the first panel, participants discussed the compliance issues with regards to the Intermediate-Range Nuclear Forces Treaty (INF Treaty) after the United States issued its 2014 Compliance Report. The treaty was a groundbreaking deal for its “double zero” obligation and for the unprecedented verification measures. Both the U.S and the Russian Federation accuse each other of specific violations of the treaty. Participants assessed the treaty’s contribution to the security of both parties, possibilities of multilateralization and modernization - i.e. including new weapons systems. The role of technical language in arms control debates was also discussed, as well as the idea of expanding the communication so as to keep the broader public informed.

From this, participants turned their attention to more recent developments in today's volatile world and specifically the European theater. The Ukrainian/Crimean crisis is a new and dangerous escalation. Potential tools and options of the international community to address and resolve the conflict in a peaceful way were also discussed, together with the role of international institutions - such as the EU, the UN, the OSCE and NATO - to prevent further escalation and solve the crisis.

The participants recognized that states have certain security needs essential to their national interests. In this regard, although many of the Central and Eastern European (CEE) countries have strong economic ties with Russia, security concerns and threat perceptions have overridden some of the current economic imperatives. For instance, security concerns played a major role in the decision of the CEE countries to join the economic sanctions regime against Russia. Russia's particular views on the crisis were also addressed, discussing why the Russian Federation felt the need to take control over Crimea and how the enlargement of NATO and the security competition has fueled the current crisis.

Lastly, it was also recognized that, in terms of military capabilities, the EU is still not a sufficiently strong player in the international arena. Therefore, other players also have their role in the negotiations with Russia, which might be better suited for diplomatic dialogue on security issues.

- The Middle East

Participants discussed whether the Iranian nuclear deal between the P5+1 and the Islamic Republic of Iran will change the geopolitics of the Middle East. Recognizing it as a success of diplomacy which has further implications for the broader non-proliferation regime, participants discussed the pro-deal and contra-deal arguments taking place within the academic community and the wider international arena. The questions such as "*Will the deal lead to proliferation in the Middle East?*" or "*Would the deal ensure that Iran's nuclear program remains peaceful?*" were addressed in detail. Some argued that if the P5+1 and Iran succeed in agreeing and maintaining a deal that facilitates Iran's civilian nuclear program, a whole new range of possibilities would emerge for the non-proliferation regime. As nuclear weapons are not always a guarantee for national credibility and prestige, the world powers and Iran must assume their shared responsibility, and they have to co-operate for the maintenance of such ideas to strengthen the entire non-proliferation regime.

However, perceived threats over Iran are not merely related to its nuclear capabilities; it remains important to create and also to maintain open diplomatic channels and unofficial dialogue with Iran to address a range of other concerns. Furthermore, communication through a third party intermediary, such as Pugwash, for track II round table discussions is essential to improve relations and dialogue amongst states in the region that tend to have weak official lines of communication between each other.

- South Asia and North East Asia

With developing technologies and new nuclear capabilities, it is crucial for India and Pakistan to re-engage with each other and formalize restraint and Confidence Building Measures (CBMs). Participants stressed the importance of enhanced discussions on a national level but also the value of track II diplomacy in improving regional stability. Furthermore, attention was given to the role of the U.S. in South Asia but also to the increasing role of China as a seeker of global leadership.

Fundamental changes are also occurring in East Asia with relations among China, Japan and South Korea becoming ever more complex. On the one hand we are witnessing rising tensions. On the other hand, we can also see an increase in economic cooperation. Participants focused on a range of developments in the region that pose vital stability and security concerns.

A primary concern in the region is the new posture that Japan seeks in the international arena. Japan's foreign policy shift is foreseen as threatening by its neighbouring countries who have suffered from an imperialistic Japan in the past. Hence, participants stressed the importance for Japan to come fully to terms with its past. A second concern that weakens the stability of the region is the increase in military spending by the Chinese government, as well as the recent move from China to build a third airstrip on the disputed islands of the South China Sea. This move is particularly worrying for the Philippines, Vietnam, Malaysia and Brunei but also for Japan who sees this move as a continued unwillingness from China to address the sovereignty issue of all its disputed islands. Finally, the missile and nuclear program of the Democratic People's Republic of Korea (DPRK) also remains a huge source of instability in the region. However, it was pointed out that a confrontational attitude on the part of extra-regional states has contributed to worsening rather than solving the crisis.

Rethinking deterrence, nuclear weapons, and nuclear strategy

Participants discussed the role of nuclear weapons/deterrence in the post-Cold War era, and argued that these weapons no longer play such an important role under the current security environment. The continued value of these weapons, and the viability of nuclear deterrence became questionable in many cases such as the threat of terrorism, health issues, and environmental considerations.

The classical argument on nuclear weapons - that nuclear-armed states may threaten to use nuclear arms in order to guarantee their national security and achieve their goals in international relations - was challenged by the participants on many different grounds.

The long standing dilemma between nuclear "stability" achieved through deterrence, and the goal of complete disarmament were discussed, as well as the competing concepts of the reduction of nuclear weapons on a step-by-step basis vs. the new concept of the humanitarian initiative.

Confidence building and disarmament

Participants also discussed alternative confidence building measures and disarmament pathways such as opting for a unilateral disarmament approach. Implementing *persuasive* rather than *coercive diplomacy* towards nuclear armed states, such as the DPRK, or the use of export control regulations to prevent proliferation, as well as the practice of track II diplomacy to resolve mistrust among countries and to achieve disarmament were discussed by the participants as long term goals.

The contribution of civil society and next generation activists

In recent years, civil society - including Non-Governmental Organizations (NGOs) - has come to play an increasingly important role in the field of disarmament and non-proliferation by providing a space/forum for divergent viewpoints to be discussed, and by providing a factual and critical perspective to both policy makers and the general public. Civil society plays a particularly important role in inspiring the next generation to think differently about nuclear weapons. It is believed that there is a divide between the youth and the past generations about the legacy of nuclear weapons, with the younger generation feeling less affected and more disconnected from the debate surrounding nuclear weapons. Moreover, a divide seems to remain between supporters of nuclear reductions and nuclear abolition.

Nuclear energy and sustainable development

The participants went on to discuss nuclear energy and sustainable development by focusing on the ethical aspects of nuclear power, as well as its viability as a tool for sustainable development. Economic viability of nuclear power and the question of whether renewable energy can serve as an economic alternative to nuclear power was also touched upon.

Furthermore, participants looked at the ongoing discussions on the multilateralization of the nuclear fuel cycle, and the prohibition of the development of sensitive technologies outside of multilateral frameworks. The multilateralization of the fuel cycle would be an answer to future energy and economic concerns of the development of national fuel cycle capabilities. This could also guarantee the physical protection of these materials and technologies. Participants discussed how simulation, such as the fuel cycle simulation (CYCLUS), could be used in tracking nuclear materials and detecting stolen and smuggled parts.

Finally, participants discussed the provisions of recently concluded nuclear cooperation agreements between Turkey and Russia, as well as between Turkey and the Japan-France consortium. These agreements, especially the Russian Build-Own-Operate (BOO) model, increase the peaceful use of nuclear energy in the framework of the Power Purchase Agreement, and provide a spent fuel take-back option for used nuclear

fuel. The panel also discussed the government and public views on nuclear power and nuclear security issues in Turkey.

Environment and human security

Participants discussed the imbalance of environmental concerns in the literature of international relations and questioned how an instrumentalization of the environmental impact of nuclear power would be possible. There was an agreement that a change in the traditional understanding of nuclear security, and re-thinking the nuclear effects on climate change are necessary.

Finally, participants discussed the issue of nuclear waste management and the ethical responsibility of scientists. The case of Runit Dome in the Marshall Islands. was described as a prime example of a concrete construction that acts as a deposit for nuclear waste and which poses significant ethical and environmental problems. It was also mentioned how the Fukushima accident has centred the nuclear energy debate around harmful radiation and public safety following nuclear accidents.

Participant List

1. **Anastasia Barannikova** (Russia), Researcher, Adm Nevelskoy Maritime State University
2. **Poul-Erik Christiansen** (UK), PhD Candidate, University of Ottawa
3. **Koji Enomoto** (Japan), Ph.D student/Research Fellow, Tokyo
4. **Ezra Friedman** (Israel), BSc in Government Studies, IDC Herzliya
5. **Emma Hansen** (Canada), Schulich Leader Scholar, B.Sc. (Honours) Candidate in Physics and Philosophy, Victoria College in the University of Toronto
6. **Cameron Harrington** (Canada), Postdoctoral Research Fellow, Global Risk Governance Programme, University of Cape Town
7. **Toshihiro Higuchi** (Japan), Assistant Professor, Kyoto University
8. **Kenta Horio** (Japan), Ph.D. Candidate, Tokyo University
9. **Kentaro Ide** (Japan), Manager Global Export Controls and Sanctions, Deloitte LLP
10. **Maryam Javan Shahraki** (Iran), Assistant Professor, University of Tehran
11. **Tianjiao Jiang** (China), Fudan University
12. **Karim Kadry** (Egypt), Pugwash Council member
13. **Petr Korzun** (Russia), Consultant (energy issues), Trade Representative Office of Russia in the Netherlands (economic mission)
14. **Moritz Kütt** (Germany), PhD Candidate, Technische Universität Darmstadt
15. **Meghan McGarry** (USA), Postdoctoral Fellow, University of Wisconsin-Madison
16. **Kevin Miletic** (Switzerland/Croatia), Programme Manager / PhD candidate, School of Oriental and African Studies
17. **Roberta Mulas** (Italy), PhD Candidate, University of Warwick and LUISS University
18. **Sobia Paracha** (Pakistan), Resident Consultant, Islamabad policy Research Institute
19. **Anna Péczeli** (Hungary), Research Fellow, Centre for Strategic and Defence Studies (CSDS) – National University of Public Service
20. **Cigdem Pekar** (Turkey), Research Assistant/PhD Candidate, Canakkale Onsekiz Mart University/MIIS
21. **Mahsa Rouhi** (Iran), Research Associate/Assistant Professor, MIT, Center for International Studies
22. **Benjamin Rusek** (USA), Senior Program Officer, U.S. National Academy of Sciences
23. **Jaganath Sankaran** (India), Post-doctoral research associate, Los Alamos National Labs
24. **Joseph Schofield** (USA), Law Student, Boston University
25. **Mohammad Ali Shabani** (Sweden/Iran), PhD Candidate, SOAS and AI-Monitor
26. **Ananya Sharma** (India), PhD Candidate, Centre for International Politics, Organisation and Disarmament, School Of International Studies, Jawaharlal Nehru University
27. **Silene Theobald** (France), Youth project coordinator, ICAN France
28. **Alexandra Agnes Tsamados** (Greece), SYP Coordinator, British Pugwash
29. **Till Weyers** (Germany), Project Consultant, Federation of German Scientists (Vereinigung Deutscher Wissenschaftler e.V.)
30. **Yoshihiro Yakushige** (Japan), Assistant Professor, Kyoto University
31. **Tong Zhao** (China), Associate, Carnegie-Tsinghua Center