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Nagasaki's Voice: Remember Your Humanity

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Working Group 2 Report: "Concrete Steps Toward a Nuclear Weapon Free World"

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Discussion Highlights

- Pugwash should express support for a convention banning possession and use of nuclear weapons, coupled with a provision for elimination of existing stocks by nuclear weapon states and nuclear armed states by a specific date. Such a convention would amount to a legal norm.
- Encouragement for creation of a legal norm is not incompatible with encouragement for a number of steps that reduce the risk of nuclear weapon use pending their elimination: de-alerting, no first use commitments, sole purpose commitments, a multilateral prohibition on cyberwarfare targeting nuclear command and control systems, the removal of tactical nuclear weapons to central storage on national territory pending their elimination.
- Nor is creating a legal norm incompatible with a phased approach to elimination that includes both deployed and non-deployed warheads, counting missile defense interceptors and prompt global strike launch vehicles against global ceilings, and an acceleration of collaboration for verification of warhead dismantlement.
- In addition, Pugwash should argue for the parties to the 1967 convention on outer space to meet in 2017 and amend the treaty to provide for regular implementation reviews in future. Those would permit discussions on how to avert the weaponisation of outer space.
- Pugwash should develop an effective communication strategy to maximize support from civil society, especially youth organizations, for nuclear disarmament initiatives.
- Where nuclear weapon free zones are concerned, the "foot in the door" approach has proved to be effective. In relation to the Middle East it should take the form of the UNSC and UNGA mandating a group of experts to produce a model agreement and appointing a special coordinator to facilitate negotiations on that model under UN auspices. In addition, Pugwash should promote single country zones on the

Mongolian line, support the RECNA proposal for a weapon-free zone in Northeast Asia, and encourage consideration of proposals for an Arctic zone.

Discussion Summary

During the 61st Pugwash Conference on Science & World Affairs, Working Group 2 met under the title “Concrete Steps Toward a Nuclear Weapon Free World”. The co-conveners lead through a broad range of topics with relation to nuclear disarmament. Discussions started out reflecting on the outcome of the NPT 2015 Review Conference, turning towards prospects for multilateral, bilateral & unilateral disarmament (convention, ban, time frame). On the second day, prospective nuclear weapon free zones and missile defense were discussed in detail, in the end that was reconnected to the topics from the first day.

The group had about 35 participants, coming from a variety of countries including Russia, United States, United Kingdom, Italy, Germany, Japan, China, France, Canada, and Argentina. The lively and productive discussions were supported by twelve working papers prepared by the participants, which covered certain aspects of the discussed topics.

NPT, NWC and Ban Treaty

Reflecting the 2015 Review Conference of the NPT, several members of the working group expressed concerns that the conference could not adopt a final document. Without producing a comprehensive list, several reasons for the failure have been discussed. A main issue has been the lack of progress with regard to a nuclear weapon free zone in the Middle East. Also, the negotiations again showed the problem of having difference in status of member states between nuclear weapon states and non-nuclear weapon states. The treaty was also called a tool that was useful and prepared for the cold war, but probably not fully suitable any more for today.

With regard to future steps that could be taken based on NPT and its review framework, the group discussed the deal negotiated with Iran as a success for efforts to ensure the non-proliferation obligations. Elements of the deal could also be used as an example to achieve progress with regards to the situation in the Middle East. Beyond regional issues, NPT negotiations should refocus on the implementation of the obligations in Article VI. It was addressed that such negotiations should try to transform the rather vague formulation into concrete steps and a possible timeline for disarmament.

One of the important issues discussed only emerged in recent years. The movement surrounding the humanitarian pledge, has put forward the idea of a creating a legal instrument to prohibit nuclear weapons, based on negotiations in Norway, Mexico and Austria regarding the humanitarian consequences of the use of nuclear weapons. Such an instrument, often called a “Ban Treaty” would aim at setting a new norm for all states subscribing. While in the beginning no provisions on disarmament and its verification

would be included, such regulations could be added together with the accession of Nuclear Weapon States.

While being an instrument limited in range, a ban treaty would be a step forward to challenge the centrality of nuclear weapons in international relations. Even without universal membership, such an initiative would re-generate pressure exerted by the general public on governments.

Such an approach could be similar to the experiences with the negotiations and ratifications of the Anti-Personnel Mine Ban Convention and the Convention on Cluster Munitions.

Also, a ban could include lessons learned from the Chemical Weapons Convention. This convention provided a level playing field for chemical weapons dismantlement by introducing first a general prohibition, combined with provisions for the dismantlement of the existing weapons at the time of entry into force.

As the final goal of nuclear disarmament is a long journey, several steps could be taken at earlier dates. At present, several nuclear weapon states maintain deployed nuclear weapons with the capability to be very quickly launched on the occasion of the warning of a nuclear attack towards the respective country. Such quick launch procedures leave only very limited time for informed decision making, and could as such lead to wrong decisions under pressure. The launch procedure also suffer from an additional risk: They are based on complex command and control computer systems, and often require only very short computer signals to launch an attack. As such, additional risks for use of nuclear weapons might be caused by cyber attacks on these systems. Reducing the readiness of these weapons, de-alerting of arsenals, would be a relatively simple step that could be taken especially by the United States and Russia and would immediately decrease the risk of use of nuclear weapons. Also other nuclear weapon states should be engaged to refrain from putting their weapons on high alert.

While the approaches regarding how to proceed towards nuclear disarmament (among them further negotiations in NPT arena, a ban treaty, a nuclear weapons convention, de-alerting approaches, bilateral/multilateral strategic reductions) differ, it was emphasized in the working group that the approaches are not mutually exclusive or contradicting. In turn, they could reinforce each other.

Several policy recommendations could be identified in this field, which could be a basis for further Pugwash activities: Pugwash should support nuclear ban convention, coupled with elimination of existing stockpiles. Abandonment of Launch-on-warning (de-alerting) should be encouraged by Pugwash. Nuclear weapons elimination would also need stronger efforts in the following areas: Reduction of strategic nuclear weapons by US & Russia, non-deployed and tactical weapons, as well as missile defense and CPGS should count against nuclear ceiling (elaborated below). Later in the process, the reduction should be extended to become a multilateral process.

Missile Defense

Missile defense is a complicating factor for nuclear reductions. As recognized in the preamble of the New START treaty, there is a linkage between strategic offensive and defensive weapons. Such linkage is imposing real challenge for the United States and Russia to reach agreement on further nuclear reductions. It is important to recognize that current projection of U.S. missile defense development in the future will not affect U.S.-Russian strategic balance. A wide range of options are available to counter missile defense, including increasing offensive capability, deploying decoys, and MIRVing. But the impact of missile defense on nuclear balance will become much more significant if the overall size of nuclear stockpiles becomes much smaller in the future. When we move to deep nuclear reductions, the relevance of even a modest missile defense system will increase considerably. It is also pointed out that even though missile defense is a global security issues, it also has significant regional implications. Some Non-Nuclear Weapons States have been cooperating with Nuclear Weapons States to develop and deploy regional missile defense systems. This makes some NNWS capable of affecting nuclear stability between NWS.

Regardless of the technical reality, perception is a much more important determining factor. It is Russian perception that U.S. missile defense will continue to grow and will ultimately become very capable. Given this, one way to address the missile defense issue is to acknowledge the impact of missile defense on offensive nuclear capability. On basis of that, count nuclear weapons and missile interceptors in one “basket” and set an overall ceiling for their numbers. The specific counting rules for missile interceptors can be negotiated by relevant countries (for instance, count two missile interceptors as one nuclear weapon), and the specific force structure can be left for each country to decide.

This same approach can be used to address the challenge posed by conventional prompt strike weapons too. The U.S. conventional prompt strike weapons are perceived by Russia as an immediate security threat. Some U.S. Aegis ships, for example, are equipped with SM-3 missile defense system and deployed in Mediterranean as part of European missile defense system. But these same ships can also carry conventional Tomahawk cruise missiles and may be used to conduct preemptive strike against Russian strategic targets. Given Russian concern over conventional prompt strike weapons, it is necessary to take them into count in future nuclear negotiations. The New START treaty already counts conventionally-armed ballistic missiles as nuclear ballistic missiles. In a similar manner, future conventional prompt strike weapons can also be incorporated in the aforementioned “basket” and be counted under an overall ceiling for all strategic weapons. As a result, all strategic weapons (nuclear weapons, strategic missile defense systems, and conventional prompt strike weapons) will be capped by this single overall ceiling. Again, the specific structure of the strategic weapons stockpile can be left to each country to decide. This overall ceiling/basket proposal receives general support from the group. Some go one more step further to suggest that tactical nuclear weapons and reserved nuclear weapons can be counted under this overall ceiling/basket too.

The outstanding issue of outer space is another factor to consider. Even though some space-based military systems can interact with missile defense and affect the nuclear equation, they constitute a qualitatively different category of weapons and cannot be easily incorporated into the ceiling/basket strategy. Pugwash should call for parties to the 1967 Convention on Outer Space to meet in 2017 (50th anniversary) and agree to further regular review meetings, with a view to creating a forum for discussions on how to avert the weaponization of outer space.

Nuclear Weapons Free Zone (NWFZ)

The group had an extensive discussion on the instrument of Nuclear Weapon Free Zones. NWFZ offers opportunity to try things out without having to force NWS to commit to immediate and complete disarmament. In order to promote new NWFZs, the so-called “Foot-In-The-Door” mechanisms were called to attention. They are based on past experiences from the Latin America Nuclear Weapon Free Zone and other agreements. Instead of trying to negotiate full intended outcomes from the beginning of treaties, such “Foot-In-The-Door” mechanisms allow for gradual increasing treaty requirements or even gradual treaty accession by countries, while ensuring a continuous venue for deliberations. Regarding the Middle East NWFZ, the “Foot-In-The-Door” approach to NWFZ's should take the form of the UNSC or UNGA mandating a group of experts to produce a model agreement and appointing a special coordinator to facilitate negotiations on that model under UN auspices.

A first step that was proposed is a call for a regional zone for fissile material control in the Middle East. Gradually reducing the amounts of fissile materials in all states would build confidence for further negotiations. The proposal includes an overall limit for uranium enrichment (e.g. 5 to 10%). For those facilities in the region that currently use higher uranium enrichment levels, plans should be made for future conversion to lower enrichment levels. For country(ies) that already possess fissile materials usable for weapon purposes, a phased plan is proposed for them to firstly declare all their fissile materials (without need to specify purpose of use in the beginning). During the second phase, the locations where such materials are present would be declared. In the end, the afore-declared material stockpiles will be verified through inspections.

Besides the Middle East NWFZ, Pugwash should support the RECNA's proposal for a Nuclear Weapon Free Zone in Northeast Asia which will include the Korean peninsula and Japan. A facilitator coming from outside of the region should be appointed to promote Northeast Asia NWFZ. In addition, the prospects of establishing an Arctic Nuclear Weapons Free Zone were discussed. An Arctic NWFZ would not demand further disarmament measures from the United States or Russia, but would only need them to refrain from military nuclear operations within the zone. More discussions are necessary to resolve issues such as innocent passage of nuclear ballistic missile submarines. The concept of single country zones receives wide support from the group. Mongolia has set an inspiring example in this regard, and Pugwash should encourage additional countries to declare their own territory single state nuclear weapon free zones.