

53rd Pugwash Conference on Science and World Affairs
Advancing Human Security: The Role of Technology and Politics

Halifax and Pugwash, Nova Scotia, Canada
17-21 July 2003

Report on Working Group 1
Nuclear Weapons

Dr. Jo Husbands (USA) and General Pan Zhenqiang (China) [Co-conveners]
Dr. Bob van der Zwaan (The Netherlands) [Rapporteur]

Introduction

Today, the nuclear non-proliferation and disarmament process faces its greatest challenge since the end of the Cold War. With the increasingly urgent danger of regional nuclear proliferation, and with a US Administration that has shifted from its earlier nuclear policy, in which nuclear weapons were regarded as weapons of last resort, to one in which it may use nuclear weapons for preemptive purposes - also in cases of non-nuclear threats and against non-nuclear weapon states - the nuclear non-proliferation regime is currently in a profound crisis.

As participants of Working Group 1, we want to draw renewed attention to the present nuclear disarmament deadlock, and, while emphasizing the need to imminently find regional solutions for the world's most worrisome nuclear emergencies, we point out that increasing urgency exists to seek a universal elimination of nuclear weapons. Mankind therefore ought to address without delay the lack of progress in solving these nuclear threats.

Next steps for non-proliferation and disarmament

In concreto, achieving full implementation of the 13 practical steps agreed upon at the NPT Review Conference in the year 2000 is essential. In particular, a number of actions should be undertaken with high priority. Strategic nuclear arms agreements between the Russian Federation and the US, in particular the May 2002 'Moscow Treaty', should be promptly implemented and expanded. Reduced warheads and their delivery systems should be dismantled irreversibly in a transparent and verifiable manner. Remaining deployed Russian and US nuclear forces should be de-alerted to further reduce the operational status of nuclear weapons systems. The entry into force of the CTBT should be achieved, and until that time the moratorium on nuclear testing should be strictly observed. A process

of improved accounting for and control of fissile materials holdings should be created on a worldwide basis. Negotiations should be commenced on a fissile materials production ban and reduction plan, and the role and capacity of the IAEA in these matters must be strengthened.

Furthermore, the recent US trend towards expansion of the options for usage of nuclear weapons should be reversed, especially their use against non-nuclear weapon countries, as unambiguously allowed in its Nuclear Posture Review. Countries in both bilateral and multilateral security alliances with the US, which include policies allowing the first use of nuclear weapons, must resolve the tension between these policies and their NPT obligations.

Low-yield and tactical nuclear weapons

The development of new or modified nuclear weapons should be renounced as contrary to the 2000 NPT Review Conference commitment to a diminishing role of nuclear weapons in security policies and the NPT article VI obligation of a cessation of the nuclear arms race. Current US movement towards the development of low-yield nuclear weapons, as well as the concurrent evolution of the designing of ever more powerful conventional weapons, could blur the distinction between nuclear and conventional weapons, and could render nuclear weapons more usable. Once the development of low-yield nuclear weapons reaches its test phase, a collapse of the global testing moratorium of nuclear weapons is likely to follow, and perhaps even that of the entire NPT regime itself.

For these reasons, the development of low-yield nuclear weapons constitutes a significant menace to the present non-proliferation regime. The prevention of the development of low-yield nuclear weapons is to be included in future non-proliferation efforts. Also existing tactical nuclear weapons should be included in future nuclear disarmament negotiations. In particular, US tactical nuclear weapons deployed under NATO auspices in Europe should be unilaterally removed, and a wider process of reduction of US and Russian tactical nuclear weapons should be created.

Regional crises

The current crisis on the Korean peninsula constitutes one of the most urgent nuclear threats the world faces today. While the US - North Korean deadlock is profound and intricate, we believe that finding a sustainable and peaceful solution to the present dilemma is not only possible but also imperative. Through urgent negotiations and international diplomacy a commonly satisfying agreement can be found between the main regional protagonists, in which North Korea is given the security and non-aggression guarantees it desires, while renouncing in a verifiable manner once and for all its endeavors to acquire nuclear weapons. In the longer run, a gradual process of consensus building should lead to a Peace Treaty.

Similarly in other parts of the world, regional approaches to nuclear non-proliferation should be realized that are embedded in the broader political context of the region under consideration. More nuclear-weapon-free-zones should be established covering territories as large as possible. In particular, nuclear non-proliferation should be integrated in regional conflict resolution and confidence building measures in the Middle East and South Asia. Such regional and step-by-step approaches could initiate a process towards the universal elimination and abolition of nuclear weapons.

Nuclear relations

During the Cold War, global nuclear relations rested on two mutually supportive arrangements: the elaborate structure of nuclear deterrence and the non-proliferation regime. A rough equality of military power was measured in terms of assured mutual destruction, while uneven distribution of military nuclear capabilities assured a rank ordering among nuclear weapon powers. This balance of terror created a semblance of order, based primarily on the unprecedented common interest of all states in avoiding a nuclear holocaust. Thanks to the NPT, nuclear weapon and non-nuclear weapon states found a common ground in averting the spread of nuclear weapons with all undertaking respective obligations.

Today, the situation has fundamentally changed. The US no longer sees nuclear arms control as an essential part of its nuclear policy and is instigating substantial changes in the nuclear non-proliferation regime. Considerable unease exists about combining the campaign against terrorism with preventive or preemptive counter-proliferation. With possibilities of a nuclear response to chemical or biological attack, a danger now exists of a further abuse of nuclear weapons. Nuclear war has been avoided so far largely because of the taboo against the military use of nuclear weapons during each successive decade of the nuclear era. Any such use in the future would destroy whatever remains of that taboo.

Nuclear awareness

Strengthening public awareness about the dangers inherent in nuclear weapons may contribute to a greater international effort for nuclear non-proliferation and disarmament. For many, the end of the Cold War implied the end of the nuclear threat. The lack of public concern regarding the continuously existing and probably increasing nuclear threat, however, contrasts starkly with the way international events have moved over the past few years. Efforts to convince the public that nuclear weapons pose a dangerous liability for mankind need greatly enhanced. An international public information effort is needed to raise nuclear weapons higher up the political agenda, to a level where governments will have to engage in the debate and be responsive to a growing body of public opinion that is opposed to the possession and threatened use of nuclear weapons. Heightened awareness should also be realized of the threat of terrorist use of nuclear devices and

materials, or terrorist attacks against nuclear facilities, including those related to the civil nuclear power industry.

It is not easy to see an immediate way forward for an effective public information program that may clarify the need for a process towards the universal elimination of nuclear weapons. One message seems to be clear, however: it is important to remind everyone of the constant nuclear threat and the horrifying consequences of the use of nuclear weapons. Whereas the crisis in the nuclear non-proliferation and disarmament process is enormous, we think that positive ways exist out of the current perilous situation. Much more thought and effort are needed to try to escape from today's nuclear crisis. The Pugwash Conferences on Science and World Affairs can play a unique role in both educating and providing expertise information.

Concise summary

- With the increasingly urgent danger of regional nuclear proliferation, and with a US Administration that has shifted from its earlier nuclear policy, in which nuclear weapons were regarded as weapons of last resort, to one in which it may use nuclear weapons for preemptive purposes, the nuclear non-proliferation regime is currently in a profound crisis.
- Achieving full implementation of the 13 practical steps agreed upon at the 2000 NPT Review Conference is essential.
- A process of improved accounting for and control of fissile materials holdings should be created on a worldwide basis, while negotiations should be commenced on a fissile materials production ban and reduction plan, and the role and capacity of the IAEA herein must be strengthened.
- The development of low-yield nuclear weapons constitutes a significant menace to the present non-proliferation regime and its prevention should therefore be included in future non-proliferation efforts, while a reduction of tactical nuclear weapons should be included in future disarmament negotiations.
- Through urgent negotiations and international diplomacy a peaceful solution and commonly satisfying agreement can be found between the main regional protagonists in the crisis on the Korean peninsula, in which North Korea is given the security and non-aggression guarantees it desires, while renouncing in a verifiable manner once and for all its endeavors to acquire nuclear weapons.
- Similarly in other parts of the world, regional approaches to nuclear non-proliferation should be realized on the way towards universal elimination of

nuclear weapons, and, in particular, nuclear non-proliferation should be integrated in regional conflict resolution and confidence building measures in the Middle East and South Asia.

- Strengthening public awareness about the dangers inherent in nuclear weapons may contribute to a greater international effort for realizing nuclear non-proliferation and disarmament.