

*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**

**A Report to the 53rd Pugwash Conference**  
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Throughout its 46 years of existence, the main goal of Pugwash has been the elimination of all nuclear weapons and, more generally, of all weapons of mass destruction which have brought the risk of annihilation to mankind. Scientists (including those who worked on these instruments of destruction), policy makers, and military people, as well as those actively involved in supporting disarmament--people of different nationalities and political opinions--have been brought together over the years for the purpose of seeking ways of controlling and eliminating the most deadly weapons and promoting cooperation and peace. After the end of the Cold War, many of the problems related to nuclear weapons and WMD did change, but the weapons themselves and the relevant risks did not disappear. In the last period, the issues related to nuclear weapons and more generally to WMDs have in fact been at the core of many political initiatives, military interventions and planning, and decisions of various nature on the international scene, but unfortunately most of these actions and decisions were made in directions that many of us regret. The overall situation, as far as disarmament and the elimination of WMDs are concerned, is far from reassuring--just as the status of conflicts and hostilities, particularly in regions where nuclear weapons or other WMDs are present, is also far from reassuring. Much of our activities of the last year has been developed in this very critical environment.

**Nuclear weapons, nuclear disarmament and proliferation**

Let us recall that the 2000 NPT review conference concluded with the approval of 13 "immediate" steps for systematic and progressive efforts to implement article 6 of the NPT, that mandates the nuclear weapons states "to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament."

These steps included: entry into force of the Comprehensive Test Ban Treaty (CTBT); the banning of the production of fissile material; the unequivocal undertaking by nuclear weapons states to accomplish the total elimination of nuclear arsenals; the preservation and strengthening of the (now defunct) ABM

treaty; the reduction of non-strategic warheads, the reduction of the operational status of nuclear weapons and increased transparency; the principle of irreversibility applied to nuclear disarmament; diminishing the role of nuclear weapons in security policies; and the achievement and maintenance of a nuclear weapons-free world. Most of these steps have been dismissed since 2000.

***These are difficult moments for the arms control regime:***

1. It has been shown that treaties such as the ABM can be disposed of when no longer needed;
2. New treaties present a very weak idea of disarmament: the Moscow Treaty projects 1700-2200 strategic (only) warheads per party by 2012;
3. There is little limitation to nuclear testing, since we do not have any foreseeable date for entry into force of CTBT;
4. We do not have any instrument of verification for the BWC.

***Moreover, there is a newly proclaimed utility of nuclear weapons:***

5. New (smaller) nuclear weapons are needed (the USA);
6. In its National Strategy to combat WMD, the "US will continue to make clear that it reserves the right to respond with overwhelming force-including resorting to all its options-to the use of WMD against the US, its forces abroad, and its friends and allies";
7. The lack of progress in disarmament affects all nuclear power states: their arsenals remain unchanged. And these states continue to consider their nuclear arsenals as an essential instrument of their military (and not only military) policy.

***The security concerns of non-nuclear states have also increased:***

8. There is no security guarantee for non-nuclear-weapon states and, in fact, there is even talk about possible preventive attacks against WMD assets before these weapons are used;
9. We witnessed the instrumental use of the need to fight WMD as a justification for military intervention aimed at regime changing;
10. We witnessed the weakening of international institutions, including those which should oversee the implementation of the NPT and the control of nuclear activities. The war on Iraq was based on the idea that international institutions could not be trusted.

***There is the impression that those responsible for nuclear proliferation get away with it:***

11. Nuclear proliferation did take place significantly, and the consequences for the states involved were manageable. India and Pakistan acquired good-sized nuclear arsenals, and pressures against them (sanctions) did not last long. Israel of course

gets away with its undeclared nuclear status due to its so-called exceptional situation;

12. Even a comparison between the treatment reserved to countries that may work for nuclear weapons and to Iraq, shows that being closer to nuclear capability does not necessarily imply being subject to a stronger pressure.

To quote the very candid statement by CIA Director George Tenet (February 2003):

*We have entered a new world of proliferation.... This is taking place side by side with the continued weakening of the International non-proliferation consensus. Control regimes like the NPT are being battered by developments such as North Korea's withdrawal from the NPT and its open repudiation of other agreements. The example of new nuclear states that seem able to deter threats from more powerful states simply by brandishing nuclear weapons, will resonate deeply among other countries that want to enter the nuclear weapons club. Demand creates the market. The desire for nuclear weapons is on the upsurge..... ..The domino theory of the 21st century may well be nuclear.*

### **The risk of nuclear war**

The end of the Cold War certainly did significantly reduce the risk of nuclear conflicts. But this risk is far from being eliminated.

a) The nuclear weapons of the two former antagonist superpowers are still targeted at each other, and a significant part of them are still kept on high-alert status, so that today we still have the spectre of nuclear war by mistake or miscalculation.

b) New nuclear states are in situations where the risk of conventional conflict and nuclear escalation is significant. The relations between India and Pakistan (both nuclear-armed) have several times brought both countries to the verge of conflict. There is high tension in North-East Asia, where a possible new nuclear actor is present. And the large Israeli nuclear arsenal is a continuous reminder that any conflict in the Middle East may very well become nuclear.

c) There is an abundance of fissile material available worldwide, and its disposal is progressing slowly and with limited resources. There is still a very serious concern that some fissile material may be acquired by nuclear-proliferating countries or seized illegally by sub-national groups. If one were to have available a sufficient amount of fissile material, then building a rudimentary nuclear weapon for terrorist use would be a very easy task.

### **The war on Iraq**

The war on Iraq was motivated in part by the claimed need to combat WMD. The activities of the international inspectors in the country were halted by the decision of the US to intervene militarily no matter what the result of the inspections. The US decision was based on what soon appeared to be false claims of Iraqi activities to acquire nuclear weapons, exaggerated claims about its CBW capabilities, and unproven connections with the international terrorists of Al-Quaeda.

Even though the government of Saddam Hussein will be hardly missed, the use of the motivation to combat WMD as a justification for a military intervention which is in reality otherwise motivated, is objectively weakening the international consensus to eradicate such weapons. If the elimination of WMD is used as a false excuse for a war, the credibility of the fight against WMD is put under strain.

Moreover, the war on Iraq highlighted other important problems. First, the dramatic situation in Iraq after the conquest of Baghdad has demonstrated up to now that there is a crucial difference between winning a war militarily and being able to put in motion all the necessary mechanisms to reconstruct a country, economically, politically and socially. The issue of reconstruction, of securing necessary international guarantees and contributions, and of implementing the necessary steps to democratize the country (hardly the semi-spontaneous phenomenon, with its domino effect on neighboring countries, that was promised in some pre-war fairy tales) will be issues that remain with us for a while.

Secondly, the war on Iraq exacerbated the already tense relations between the west and the Arab/Muslim world. Many Muslims feel that they are the target of an international campaign that depicts them as, de facto, the main source of international terrorism. The sentiment in many Muslim countries is that Muslims are on the losing/ oppressed side in the international political arena. Accusations that Muslim countries harbor the goal of acquiring WMD is juxtaposed with the fact that the West and Israel openly possess such weapons and have no intention of giving them up.

Thirdly, the war on Iraq has brought to international public attention a basic question: is the will of one nation alone the basis for the new international order? And what is the role of existing international institutions? The controversy between unilateral vs. multilateral initiatives from the point of view of the only existing superpower may be one of a choice between two courses of actions that need to be compared on the basis of actual results. But for other nations and peoples of the world, the alternative is between having the right to influence world affairs or being merely passive subjects. Moreover, it is particularly ironic when unilateral initiatives are imposed on the rest of the world with the proclaimed goal of spreading democracy.

### **Pugwash activities in the past year**

Pugwash has been working for 46 years towards the goal of eliminating nuclear weapons and other WMD. For those 46 years Pugwash has been promoting dialogue between countries on opposite fronts, even when dialogue was most difficult. The end of the Cold War represented a dramatic change in that Russia and the US were no longer facing each other as adversaries. But other countries with smaller nuclear arsenals confront each other and, as always with nuclear weapons, there is the risk that there may be a shift from tensions and hostility to conventional conflict and to nuclear escalation (whether planned or inadvertent). This is the case with India and Pakistan, as mentioned before. Pugwash, which has eminent members from both India and Pakistan, has been very active during the last year in promoting analyses, offering suggestions for the resumption of the dialogue (at any level) in the Indian subcontinent, and questioning various aspects of nuclear policies and strategies that are of particular concern since they contribute to making nuclear confrontation more likely.. There are of course many difficult unresolved issues which are at the core of the confrontation in the Indian subcontinent. The issue of Kashmir is one of the most difficult. Pugwash promoted in the past year and will do so in the future a frank discussion about Kashmir and other issues and will cooperate with other forces in the promotion of dialogue and stability in the subcontinent.

Another critical region is the Middle East, where nuclear weapons are also present and the risk of nuclear proliferation is significant. Having been involved in the region for a long time, Pugwash in the past year has been focused on the idea of promoting a stable dialogue on security aspects in the whole middle eastern area. This means not only Israeli and Palestinians, but the Arab and non-Arab countries of the Middle East. The Arab (Saudi) plan for the establishment of normal relations between countries of the Middle East was the subject of a specific workshop in Amman. The Arab plan is the first significant recognition by all the Arab states (with no exceptions) of the right of Israel to exist in peace inside the 1967 border, together with the Palestinian State. It is an important element in the future peace architecture of the Middle East that has not received enough attention and recognition. The goal of a nuclear weapons-free zone in the Middle East is also very important, both in general and for Pugwash. This can be attained only in a general framework of significantly reduced confrontation in the Middle East, and the Arab plan is an important tool for that goal.

Iran is a vitally important country in the Middle East and Pugwash has been active in promoting dialogue between Iran and other countries (including western countries). In reference to allegations about plans for developing military nuclear capabilities in Iran, Pugwash welcomes the prospect that Iran may sign the IAEA additional protocol and is very much interested in working to promote this important development.

North Korea and Iran are countries that in different frameworks have been mentioned as countries with potential or actual nuclear programs. Avoiding a

further spread of nuclear weapons is one of our fundamental objectives. But we need to understand the security needs of those countries that are thinking about acquiring a nuclear weapon capability. If we want to prevent nuclear proliferation, then a climate of cooperation needs to be established. Military actions to enforce counter-proliferation are neither effective nor just. Pugwash has a standing program for cooperation and dialogue in Northeast Asia that developed slowly in the last year for various reasons (SARS included). But we are very much committed to pushing forward this program in the coming year.

We have to acknowledge that the structure of arms control is in crisis. Helping to promote the arms control and disarmament process in all areas where this is more feasible and where there is hope of obtaining results is an important task to which Pugwash is fully committed. The idea of preventing the weaponization of space is one such endeavor. It is a goal where international cooperation can likely be achieved and which could attract the attention of the public opinion. Non-weaponizing space means to prevent aggressive behavior in space, and to prevent dangers to the scientific and technological developments that require the use of space. It means to limit anti-satellite activities and the spread of ballistic missile defense. It means to avoid the spread of activities that are dangerous from many points of view, ranging from the risk of polluting space with increased debris to the risks associated to destabilizing current useful military activities.

Another important activity conducted by Pugwash over the years has been the continuous monitoring of arms control activities related to chemical and biological weapons. Two workshops are held annually on these issues which directly affect the work that is being done by the international institutions that deal with chemical and biological weapons, by providing analyses, proposals and by promoting dialogue.

Since 2001, Pugwash has been also active in seeking to promote understanding of the various aspects of the new evolution of terrorism. This Pugwash interest, I would say with particular emphasis, also extends to the consequences of the present antiterrorist campaign (the so called "war against terror"). We want to understand how much the present anti-terrorist policies affect human rights worldwide and the mutual understanding of cultures and peoples, and also how such policies in reality affect the evolution of terrorist activities. As an example, it is obvious that invading a country with the reported goal of eliminating the risk of terrorism, and then not effectively carrying on its reconstruction, is most likely to backfire in term of terrorist activities.

One of the risks to which Pugwash has been very active in calling the attention of public opinion has been the risk associated with a possible terrorist use of WMD in general, and of nuclear weapons in particular. The Pugwash approach has focused on the fact that, in order to prevent nuclear terrorism, one immediate goal is to effectively control and dispose of all the fissile material that comes from the

dismantling of nuclear weapons and from other military and civilian activities. If the nuclear powers want to help to reduce the risk of nuclear terrorism, they do not need to keep their nuclear arsenals intact, as they are doing now. Nuclear weapons are irrelevant to preventing nuclear terrorism. What matters is that no group (either a sub-national group or a critical nation) should have access to uncontrolled fissile material. In this sense Pugwash has been promoting various initiatives to accelerate the disposal of the most dangerous of all fissile materials, Highly Enriched Uranium (HEU). One of these initiatives has been supported by the Swedish Foreign Ministry, which organized a case study analyzing a possible European role in the disposal of excess Russian HEU.

One of the fundamental goals of Pugwash has been, since its foundation, the elimination of all nuclear weapons. In this moment we feel that Pugwash is one of the few voices that are still demanding nuclear disarmament and the full implementation of article 6 of the NPT. It is ineffective and unjust to demand that smaller countries give up their nuclear options when the more powerful countries refuse to proceed in the same direction. To this end, Pugwash organized a workshop on the feasibility of No First Use, and participants discussed how declarations of No First Use can be part of a general awareness that nuclear weapons are totally ineffective in addressing concrete military and political problems and in fact serve no other role than in preventing others to use nuclear weapons first. This approach to nuclear weapons, which is in fact a time-honored approach, is very much at odds with present trends in which the idea is to build new types of (smaller) nuclear weapons for tactical purposes and to think of resuming nuclear testing.

The goal of eliminating nuclear weapons brings to mind the general problem of the social responsibility of scientists and the more general ethical problems which are associated with many types of scientific activity. Pugwash began as a group of (mainly) physicists who were concerned about their responsibility in bringing to life the risk of nuclear annihilation. Today, other risks have been brought to life by scientists in many areas, most obviously in biology and biotechnology. On these issues Pugwash has started an initiative for dialogue in Paris which will continue in the future.

## **Summary**

In conclusion, Pugwash is a small but very active community, which is spread over all the continents. We are truly an international NGO, with a variety of interests and a variety of approaches. We are very much aware that we were born as a community of natural scientists, concerned about their social responsibility, but we are happy that the evolution of the last 46 years has brought more and more political scientists, diplomats, policy makers, and military experts into the Pugwash community. Thus, our approaches are diverse and concern many different things, as the list of topics addressed in the last year (and before) shows. But we are very

conscious that the risk of nuclear annihilation, the risk of war, and the need to prevent war with dialogue and the promotion of cooperation, are a common denominator for all the members of the Pugwash community. On this common denominator we built our activities in the last year and we will continue doing so for the foreseeable future.