

## **Report of the Secretary General 2007**

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### *Pugwash: A Movement with Many Facets*

Pugwash is the oldest thriving non-governmental organization dealing with the problems of nuclear weapons, nuclear disarmament, and more generally, of weapons of mass destruction. Based on the Russell Einstein manifesto, it deals naturally with the conflicts (actual or potential) that involve States or entities possessing such weapons or that may possess such weapons in the near future. Pugwash was founded by scientists who believed that putting the nuclear genie back into the bottle and controlling and ultimately eliminating nuclear weapons was the main social responsibility of scientists, especially of those who helped build the nuclear bomb. So despite the fact that it may appear as a one-issue movement, Pugwash in reality had and has many facets and components. In Pugwash we have always been involved in *calling the attention of public opinion as well as of policy makers to the fact that nuclear weapons are ultimately incompatible with the progress and even the existence of mankind*. Pugwash involved scientists, policy makers and experts—all taking part in their personal capacity and coming from different countries, political-ideological and religious backgrounds—who could be influential in the choices made

by their governments and their respective political headquarters. This is something that in modern terminology we call promoting *track II initiatives*. Pugwash dealt naturally with people belonging to opposite and conflicting fronts; the ensuing interaction between these fronts has been on many occasion an important element of *conflict prevention and/or conflict resolution*. Finally, having been founded by scientists who had been directly involved into the fabrication of weapons with terrible devastating consequences, Pugwash has always stressed the need for the scientific/technological community to keep in mind the *social responsibility* of its actions. From an organizational point of view, Pugwash has been always very *flexible*, resisting temptations to stumble onto the bureaucratic path that plagues other organizations. Pugwash is geographically widespread, and being now present in about 50 countries, it is truly an *international* organization and not an international NGO set up and controlled by, say, a mother-house of a specific country. Finally, Pugwash is not a mini-UN, where unanimous universal consensus is required among the representatives of different countries to do anything; in fact, most actions are carried out and implemented by Pugwash's (very slim) central structure.

### *A changing international environment for the problem of nuclear weapons*

All these many facets of Pugwash's work have been instrumental in allowing Pugwash to face a rapidly changing international environment and to adapt to new situations. The most important changes with which we are concerned are of course

those connected with nuclear weapons, their numbers, the countries possessing them and the relevant nuclear policies.

### *End of the Cold War but very limited disarmament*

Over the last 15-20 years the confrontation between the two main blocs (US-Russia) changed nature in many ways. In particular, the number and characteristics of nuclear weapons ceased to be considered as one of the main (if not *the* main) measuring sticks for the power confrontation. But the reduction of deployed nuclear weapons made possible by the arms control agreements of the end of the 1980s and the beginning of the 1990s was not pursued to the point of getting below the existing level of several thousand warheads in the hands of the two main nuclear powers. So, despite the end of the Cold War, nuclear disarmament was and still is beyond the horizon, while the relevance of nuclear weapons as a symbol of power has been preserved, albeit in a different framework and without the extreme emphasis on the bilateral competition that was typical of the Cold War period. Moreover, with the exception of South Africa—in its transition period to the post-apartheid era—no country dismantled its nuclear arsenal. As the aura of nuclear weapons as a currency of power has been preserved, so are the worries of non-nuclear states that are antagonized in various ways by nuclear countries.

### *The demise of arms control*

During the Cold War, given the centrality of nuclear weapons in the East-West confrontation, arms-control treaties and talks about nuclear weapons became the key element of the more general *detente* and peace process. Discussing nuclear arms control was probably the most relevant conflict prevention initiative. This was significant even for track II initiatives or for non-official talks. After the end of the Cold War, attention to bilateral arms control or bilateral arms reduction initiatives dropped dramatically, even though the risks associated with nuclear weapons are far from having been eliminated. Moreover specific arms control agreements have been dismantled (such as the ABM treaty), prompting a possible chain reaction that in due time may bring the whole system of arms control inherited by the Cold War crashing down. As a matter of fact, there are now very worrisome symptoms of a possible renewal of the US-Russian arms race.

### *Nuclear proliferation after the end of the Cold War*

The problem of nuclear proliferation, which was kept under relative control in the Cold War period by the bipolar system, acquired a new dimension in the post-Cold War period. Generally speaking, a country may be motivated to acquire nuclear weapons for a combination of prestige-related motivations and concerns about its own security. Despite the end of the Cold War, prestige associated with nuclear weapons has been kept unfortunately high by the lack of disarmament, both in

absolute terms and considering the trend over the last 15 years or so, and even by the persisting identification of the five official nuclear powers with the permanent members of the UN Security Council. As for security concerns, those obviously did not disappear with the end of the Cold War. In some cases the lack of a bipolar equilibrium exposed some countries to heightened levels of pressures from the only superpower left; in other cases, tensions between more powerful nuclear countries and smaller non-nuclear countries encouraged the smaller countries to consider becoming nuclear at least as a form of insurance policy.

In the post Cold War period we have seen three countries added to the list of five official and one unofficial nuclear power states. The number of nuclear countries is still low, but we should not forget that *almost half of mankind now belongs to countries that possess nuclear weapons*. More countries may be on line to acquire nuclear weapons, and some countries have been suspected of having an interest in nuclear technologies, and not for civilian-only purposes.

### *Bad and good proliferators*

The non proliferation policy of the major powers and particularly of western states has recently put more emphasis on coercing potential proliferators rather than on building a general consensus for the non proliferation goals. Sanctions and even war have been used as an instrument to prevent real or only suspected proliferation. And

paradoxically, the closer some critical countries have come to the nuclear threshold, the more they have been treated with caution and respect. Even more, new nuclear or potentially nuclear countries have been divided into good and bad proliferators [or potential proliferators]. The good ones have been "forgiven" and rewarded in various ways, with the result that the "bad" ones have been induced to progress more rapidly in the nuclearization process.

### *Renewed interest in nuclear energy*

Other elements which are important in understanding the high proliferation risks that we are now facing is the renewed interest in nuclear (civilian) technology for energy purposes, considering the relatively thin barrier that separates military from nuclear civilian activities, and the fact that military nuclear technology is, in its less sophisticated aspects, a technology which is about 60 years old and hence pretty accessible. The main technical obstacle to nuclear proliferation remains of course the availability of fissile material, the control of which is of course very important. It is also important that Pugwash support all forms of international control of the production, storage and transfer of fissile materials.

*Pugwash's task to reach out to regions and countries where proliferation is a problem*

In a world with more nuclear independent actors than in the Cold War period, an organization like Pugwash should not only support in general terms the goals of nuclear disarmament and non proliferation, but also extend its presence to new subjects and areas and try to address the dividing issues or the sources of conflicts that may affect areas where nuclear weapons are present or nuclear proliferation may be a serious risk. This has been part of a great effort made by Pugwash in the past quinquennium.

*The cold war does not provide the only model for handling confrontation between nuclear states or potential proliferators: sources of conflict unrelated to armaments*

The Cold War model of how the confrontation between nuclear states developed, was handled and eventually reduced does not necessarily apply to the various actual or potential nuclear subjects that exist today. There are a variety of divisive factors that might today trigger a military nuclear action, or induce one country to seriously damage the non proliferation regime and the NPT treaty. Addressing these factors is important for any organization whose priority is preventing the acquisition, spread and particularly use of nuclear weapons. For example, the issue of Kashmir can be more relevant in triggering an Indo-Pakistani confrontation than, say, the number of weapons that are targeted across the border or the Line of Control.

*The "new" terrorism*

Another important change from the Cold War period is the role of terrorism . On the one hand, it is apparent that, given the availability of fissile material and particularly of HEU, terrorist groups could produce a nuclear bomb or a nuclear explosive device. On the other hand, the relevance of terrorist organizations has increased over the last years, especially since 911. In particular, a viewpoint has gained ground by which societies are attacked from within, often by random destruction, so that from the ashes of destruction a new order might possibly be built on the basis of "new" ideas. This sort of millenarist approach has found a fertile breeding ground in the aftermath of a series of crucial mishandlings of some specific critical situations (Afghanistan, Iraq and the Middle East in general). And from the point of view of nuclear risks, it is undoubtedly relevant, since the only thing standing between a consistent number of motivated individuals and a nuclear terrorist attack is the availability of fissile material which, especially after the demise of the Soviet Union, should not be underestimated. One point of extreme importance in dealing with terrorism is not to identify all radical groups with actual or potential terrorists. Recent policies in the Middle East in particular do make this kind of confusion, complicating immensely the problem. If radical groups are indiscriminately identified with and treated as terrorists, then the number and the influence of terrorists is bound to increase dramatically. Engaging radical groups, allowing them to operate within a framework where some basic rules are respected, and understanding their social basis, can be a complicated but necessary task.



*Back to square 1: promoting nuclear disarmament and strengthening the NPT*

One of the widespread myths used to justify the lack of progress in nuclear disarmament is that nuclear proliferators are not influenced by either the lack of or progress in disarmament. The lack of nuclear disarmament creates an international climate where nuclear weapons are considered both a currency of power and an instrument of dominance. Reactions to this climate have different and often unpredictable time scales, but this climate is defining the environment, and countries sooner or later are induced to follow the example of the more powerful states. Art. VI of the NPT is not a token compensation for the non-nuclear states. It was, and is, meant to be a clear commitment. The distinction between good and bad proliferators is not so much unjust as it is counterproductive. It increases the fatal attraction towards nuclearization. Equity and fairness in the NPT is, in the long run, the most effective way to handle proliferation risks. A special word is also needed to support the preservation of the present architecture of arms control agreements and, in fact, to improve it, while avoiding that certain dubious choices, such as the deployment of BMD systems, jeopardize the existing agreements.

## *Improving control of critical material and nuclear technology*

A big effort is needed in many directions to improve the control of fissile material and to secure the development and spread of nuclear technology against the risks of nuclear proliferation. Many ideas are on the ground, from improving safeguards to establishing international centers for the production of nuclear fuel. Many of these ideas will not be implemented if there is the perception that these measures are unfairly imposed on certain states. Countries interested in extending the production of nuclear energy are not even interested in signing the IAEA additional protocol, not to mention the idea of cooperating with more advanced safeguard constraints. The idea of imposing safeguards or even denying access to parts of the nuclear energy production process on the basis of the right of the strongest risks being totally ineffective, and can be a stimulus for further proliferation. A special mention should be made on the need for monitoring efforts aimed at securing separated (excess) fissile material and stored or dismantled warheads. This was a crucial problem which Pugwash dealt with in many past meetings and for which there is intense international activity. The widening of these activities so as to involve countries other than Russia is also important if the issue of nuclear terrorism is to be taken seriously on a world-wide level.

*Dealing with the root causes of hostility and conflicts in regions where nuclear weapons are a relevant factor.*

Stabilizing situations where nuclear weapons are an important factor (whether existing or potential) requires dealing with complex issues, of which military (or nuclear) confrontation is only one. Hostility between countries or populations can come from territorial, religious, cultural and economic motivations. It can be the result of recent misgivings, or antagonisms rooted in the past. Addressing those issues and promoting dialogue across borders or across dividing lines can contribute substantially to lowering tensions and to promoting a better relations that can have an effect on military stability. The point to underline here is that lowering the risks of conflict (possibly with nuclear weapons) and promoting reciprocal engagement centered on the sources of hostility is a two way-street.

*The Pugwash method of bringing together critical people from different fronts*

What Pugwash has done in the past and intends to do even more in the future is to facilitate dialogue between key people coming from antagonistic countries or populations. The dialogue that Pugwash is promoting is often very private and unpublicized and, I would add, unassuming, since immediate results are hardly ever expected. These kinds of meetings usually involve a very limited number of participants. But it should be added that in the critical situations we especially have

in mind, such as the Middle East, South Asia, North East Asia and other places, the very fact of opening a dialogue among selected people across the dividing lines is a major undertaking, and any result in this direction carries in itself an important weight that is not to be underestimated. Transferring people across borders or having people sitting together from different fronts is at times both very difficult and very important.

### *Dealing with other types of WMD and with conventional weapons*

There is a long tradition in Pugwash of dealing with the control and/or limitation of some specific type of weapons. These include non-nuclear weapons that are also called (properly or improperly) weapons of mass destruction. Chemical and Biological weapons pertain to this category. Other types of conventional weapons, from cluster bombs to the widespread use of small arms in critical areas, have also drawn Pugwash's attention.

### *Back to the future: the global responsibility of scientists and decision makers*

Pugwash was initiated by a group of scientists (mainly physicists) interested in dealing with the consequences of their scientific activity and its horrible results on the world. Our founder Jo Rotblat belonged to this category of scientists. We should recall that he was the only one who left the Manhattan Project when it became clear

that Nazi Germany would not produce an atomic bomb. In abandoning working on the construction of the bomb before the final result, he gave us a message that we still cherish as the key element of our activity. Scientists, policy makers, decision makers and military leaders do not have only an obligation or loyalty only to their country or own political-religious frame of reference. They have more and more a global responsibility. Our behavior on this planet should take into consideration the living conditions of all of us. Policy makers or scientists—if they do not interact with analogous decision makers or scientists from different countries or political-cultural-religious environments—quite often do not grasp the real essence of this global responsibility. Global responsibility is fully understood when comparison, engagement and cross cultural exchange is allowed. Pugwash is an instrument for this type of reciprocal engagement. It is, and has always been, a small organization, but we have the presumption to believe that even after 50 years, we still play a role in strengthening global responsibility.

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