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Nuclear Non-Proliferation: Global Security In A Rapidly Changing World

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By IAEA Director General Dr. Mohamed ElBaradei

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It has been nearly a year and a half since I spoke at the Carnegie International Non-Proliferation Conference. Already at that time - November 2002 - it seemed clear to me that we needed to revisit some of the basic assumptions and features of the current nuclear non-proliferation regime, and equally to consider new approaches to international security.

Since that time, the need for substantive change - to the international security system in general and to the nuclear non-proliferation regime in particular - has become even more obvious and urgent.

Today, I will outline for you my views on what we face, what we have learned, and the nature of the required reforms.

Non-Proliferation: Changes In The Security Landscape

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) remains the global anchor for nuclear non-proliferation and nuclear disarmament. Despite flaws in the system, implementation of the NPT continues to provide important security benefits - by providing assurance that, in the great majority of non-nuclear-weapon States, nuclear energy is not being misused for weapon purposes. Although the NPT is sometimes perceived as a Western project, its benefits extend across any North-South or East-West geopolitical divide. The NPT is also the only binding agreement in which all five of the nuclear-weapon States have committed themselves to move forward on disarmament.

During the Cold War, security and non-proliferation were linked through two broad alliances (the North Atlantic Treaty Organization and the Warsaw Treaty Organization) in a nuclear standoff - a balance of terror, if you will - based on the rather morbid doctrine of mutually assured destruction, aptly referred to as MAD. As alliance leaders, both the Soviet Union and the United States protected and managed their respective spheres of influence and were able to minimize the number of States acquiring or trying to acquire nuclear weapons. India, Pakistan, Israel and South Africa, for a variety of geopolitical reasons, were exceptions.

However ill-conceived, this bipolar standoff had the effect of producing a modicum of stability within the alliances´ spheres of influence, and President Kennedy´s prediction of 15-25 nuclear-weapon States by 1975 did not materialize.

In the past decade and a half, the international security landscape has changed. With the dissolution of the Soviet Union, the Cold War rivalry disappeared. But the failure to establish the once much vaunted 'new world order' - by effectively addressing security concerns that persisted after the disappearance of the bipolar world or emerged in its aftermath - has resulted instead in a sort of "new world instability". Many ethnic and religious tensions, held in check during the Cold War, have erupted to the fore - and in many cases have turned into civil wars, further complicated by multiple protagonists from the outside. Yugoslavia is but one stark example.

Longstanding conflicts have also continued to fester, most notably on the Korean Peninsula, in the Middle East and in South Asia, with escalating tensions and in some cases increasing hostilities. Violence by sub-State actors has also risen to appalling new levels, as we have witnessed recently in Chechnya, Spain and elsewhere, and has resulted in the emergence of new types of conflicts that cannot easily be deterred by traditional means. An increasing polarization between the Western and Muslim cultures has emerged in the wake of September 2001. And while more than 30 States continue to be party to NATO or other alliances that contribute to their security and explicitly depend upon nuclear weapons, many other countries continue to face a sense of insecurity because of these and other new security threats.

Rather than trying to understand these changes in the international security landscape and adapting to the new threats and challenges - and harnessing the opportunities afforded by an increasingly globalized world to build an equally global security system - the trend has been towards inaction or late action on the part of the international community, selective invocation of norms and treaties, and unilateral and "self-help" solutions on the part of individual States or groups of States. Against this backdrop of insecurity and instability, it should not come as a surprise to witness a continued interest, particularly in regions of tension, in the acquisition of nuclear weapons or other weapons of mass destruction. Four undeclared nuclear programmes have come to the fore since the early 1990s.

Lessons From Recent Experience

Before I discuss specific proposals for moving forward, I would like to focus briefly on some of the lessons we at the IAEA have learned from our recent experience in verifying these undeclared nuclear programmes - in Iraq, Iran, Libya and North Korea.

Perhaps the most important lesson is the confirmation that verification and diplomacy, used in conjunction, can be effective. When inspections are given adequate authority, aided by all available information, backed by a credible compliance mechanism, and supported by international consensus, the system works. The Iraq experience demonstrated that inspections - while requiring time and patience - can be effective even when the country under inspection was providing less than active cooperation. All evidence to date indicates that Iraq´s nuclear weapons programme had been effectively dismantled in the 1990s through IAEA inspection - as we were nearly ready to conclude before the war. Inspections in Iran over the past year have also been key in uncovering a nuclear programme that had remained hidden since the 1980s - and in enabling the international community to have a far more comprehensive picture of Iran's nuclear programme than at any time before.

But our experience in Iraq before the first Gulf War, and our recent experience in Iran and Libya, have also highlighted the importance to verification of the "additional protocol" - that is, the supplement to a safeguards agreement with the IAEA that provides the Agency with significant additional authority with regard to both information and physical access. Without the authority

provided by the protocol, our ability to draw conclusions is mostly limited to the non-diversion of material already declared, with little authority to verify the absence of undeclared nuclear material or activities.

Perhaps the most disturbing lesson to emerge from our work in Iran and Libya is the existence of an extensive illicit market for the supply of nuclear items, which clearly thrived on demand. The relative ease with which A.Q. Khan and associates were able to set up and operate a multinational illicit network demonstrates clearly the inadequacy of the present export control system. Nuclear components designed in one country could be manufactured in another, shipped through a third (which may have appeared to be a legitimate user), assembled in a fourth, and designated for eventual turnkey use in a fifth.

The fact that so many companies and individuals could be involved is extremely worrying. And the fact that, in most cases, this could occur apparently without the knowledge of their own governments, clearly points to the inadequacy of national systems of oversight for sensitive equipment and technology.

The present system of nuclear export controls is clearly deficient. The system relies on informal arrangements that are not only non-binding, but also limited in membership, and many countries with growing industrial capacity are not included. Moreover, at present there is no linkage between the export control system and the verification system. Export control information is not systematically shared with the IAEA, nor even fully among the members of the Nuclear Suppliers Group.

Let me be clear: even a verification system making use of the authority under the additional protocol may not reliably detect low levels of clandestine nuclear activity, such as that conducted in Iran and Libya for many years, unless at the very least supported and supplemented by the sharing of actionable information from an effective system of export controls - as well as by intelligence information, where applicable.

Our recent experience has also taught us a clear lesson regarding the accessibility of nuclear technology. The technical barriers to mastering the essential steps of uranium enrichment - and to designing weapons - have eroded over time, which inevitably leads to the conclusion that the control of technology, in and of itself, is not an adequate barrier against further proliferation.

Some estimates indicate that 40 countries or more now have the know-how to produce nuclear weapons, which means that if they have the required fissile material - high enriched uranium or plutonium - we are relying primarily on the continued good intentions of these countries, intentions which are in turn based on their sense of security or insecurity, and could therefore be subject to rapid change. Clearly, the margin of security this affords is thin, and worrisome.

Finally, the evolution of the North Korean situation over the past 18 months carries an equally disturbing lesson. For 12 years, the Democratic People´s Republic of Korea (DPRK) has been in non-compliance with its NPT obligations. In January 2003, the DPRK capped its non-compliance by declaring its withdrawal from the NPT. Naturally, the Agency reported the situation to the United Nations Security Council. But now, more than a year later, the Security Council has not even reacted. This lack of response, this inaction, may be setting the worst precedent of all, if it conveys the message that acquiring a nuclear deterrent, by whatever means, will neutralize any compliance mechanism and guarantee preferred treatment.

On the other hand, I would note that verification and diplomacy have been an important part of the success so far in Iran and Libya, and in that sense I can only hope that the continuation of the six-party talks on the DPRK nuclear programme will yield results".

The Need For New Non-Proliferation And Security Initiatives: Control, Commitment And Collective Security

With what I have covered so far as a backdrop, it should be clear that we are well beyond the point where a few quick fixes will adequately address the new and emerging threats. It is true that the international community comes at these issues from a wide range of perspectives, as evidenced by the failure of the Preparatory Committee of the 2005 NPT Review Conference to agree even on an Agenda for the conference.

But I find it encouraging that both governments and civil society are beginning to come forward with proposals on how to address these challenges - including the draft report recently released by the Carnegie Endowment. We are seeing some degree of overlap and complementarity in these proposals. In my view, this could be the beginning of a much needed discussion on non-proliferation and security - and we should do all we can to stimulate this dialogue, move it forward, and keep it in public focus.

In my view, these proposals fall into three categories: control, commitment and collective security - that is, strengthening the controls of the nuclear non-proliferation regime, and plugging existing gaps; re-affirming and in some ways expanding the commitments of all parties to this regime; and reforming the existing system of collective security in a manner that addresses the concerns of all.

Better Control

The first set of proposals should ensure that peaceful uses of nuclear technology are controlled in such a way that they do not lend themselves to further weapons proliferation. There are five aspects to this improved control.

First, we must tighten controls over the export of sensitive nuclear material and technology. The nuclear export control system should be binding rather than voluntary, and should be made more widely applicable, to include all countries with the capability of manufacturing sensitive nuclear related items. It should strike a balance between ensuring effective control and preserving the rights of States to peaceful nuclear technology. And as prescribed in April by Security Council resolution 1540, it should ensure effective national control over sensitive items, and criminalize the actions of individuals and companies involved in efforts to acquire nuclear weapons.

The aim should be easier access to non-sensitive technology and stronger control over the most sensitive parts. Practical arrangements should be put in place to ensure that relevant nuclear export information is shared with the IAEA, in a timely manner, to assist the Agency in carrying out its verification responsibilities.

Second, it is time that we revisit the availability and adequacy of controls provided over sensitive portions of the nuclear fuel cycle under the current non-proliferation regime. We should consider limitations on the production of new nuclear material through reprocessing and enrichment, possibly by agreeing to restrict these operations to being exclusively under multinational controls. These limitations would need to be accompanied by proper rules of transparency and, above all, by international guarantees of supply to legitimate would-be users.

This approach should also be extended to the end of the nuclear fuel cycle, by developing multinational approaches to the management and disposal of spent nuclear fuel. More than 50 countries have spent nuclear fuel stored in temporary sites, awaiting disposal or reprocessing. Not all countries have the right geology to store waste underground and, for many countries with small nuclear programmes, the costs of such a facility would be prohibitive. I am encouraged that the Russian Federation is considering one such collective disposal initiative. I hope to discuss this effort further when I travel to Russia later this week.

Considerable advantages - in safety, security and non-proliferation - would be gained from international cooperation in the front and the back end of the nuclear fuel cycle. I have recently established a group of international experts to explore the feasibility of such measures.

Third, we should work to help countries stop using weapon-usable material (separated plutonium and high enriched uranium - HEU) in their civilian nuclear programmes. Approximately 100 facilities in 40 countries, primarily research reactors, still use HEU for peaceful purposes - for example, to produce radioisotopes for medicine. Research reactors and critical assemblies in use worldwide should be converted to use only low enriched uranium.

Fourth, we should eliminate the weapon-usable nuclear material now in existence. Around the globe, stocks of HEU - which could be converted for weapons use by State or sub-State actors - should be eliminated, by "down-blending" these stocks to low enriched uranium for use in civilian reactors to generate electricity - a "megatons to megawatts" approach that builds on the successful Russia-US model.

The manner in which to eliminate plutonium stocks is still an open question - whether to burn the plutonium in mixed-oxide (MOX) fuel to generate electricity, or to mix it with high level radioactive waste for disposal in a vitrified form - but this too is a matter that should be resolved and acted upon with urgency.

Fifth, until these HEU and plutonium stocks have been eliminated, we should take steps to better protect the existing sensitive nuclear material around the world, with physical security measures that will ensure that such material does not fall into the wrong hands. Despite our best efforts, adequate physical protection is still lacking in many such facilities in various parts of the world. As Sam Nunn stated last November, "the most effective, least expensive way to prevent nuclear terrorism is to lock down and secure weapons and fissile materials in every country and in every facility that has them."

Just last month in Vienna, US Secretary of Energy Spencer Abraham announced an expanded "Global Threat Reduction Initiative", with objectives very much in line with some aspects of these proposals, and the IAEA is in dialogue with the US Department of Energy to see how we can contribute to, support and broaden this initiative.

Renewed and Expanded Commitment

My second set of proposals involves guaranteeing and strengthening the commitment of all parties - nuclear-weapon States, non-nuclear-weapon States, and those currently outside the regime - to the basic tenets of nuclear arms control and disarmament. There are four essential aspects to this commitment.

First, a concrete roadmap for verified, irreversible nuclear disarmament, complete with a timetable, should be put in place. Thirty years after the enactment of the NPT, with the Cold War ended and over 30 000 nuclear weapons still available for use, it should be understandable that many non-nuclear-weapon States are no longer willing to accept as credible the commitment of nuclear-weapon States to their NPT disarmament obligations.

It is regrettable that two measures that have been seen as essential steps towards nuclear disarmament, and have been the focus of the nuclear disarmament community for many years, have been either aborted after considerable progress or failed to move forward at all. I refer, of course, to the failure to ratify and bring into force the Comprehensive Nuclear-Test-Ban Treaty and the lack of negotiations on an internationally verifiable Fissile Material (Cut-off) Treaty. With a disarmament roadmap in place, both of these measures should be revived.

In July 1996, the International Court of Justice (ICJ) declared unanimously that the obligation of nuclear-weapon States, under Article VI of the NPT, to "pursue [disarmament] negotiations in good faith", is a dual obligation that also includes the obligation "to bring to a conclusion" these negotiations. "The obligation involved here is an obligation to achieve a precise result - nuclear disarmament in all its aspects."

By contrast, a report recently presented to the US Congress by the US Departments of State, Defense and Energy advocated research on the development of advanced nuclear weapons, declaring that such a move was needed to increase the "credibility" of nuclear deterrence for the US and its allies. The report states that "to minimize any misperceptions about US capabilities or resolve, it is prudent ... at least to explore whether there are ways to provide the nuclear weapon stockpile with capabilities more appropriate for deterring 21st century threats in such areas as precision delivery, reduced collateral damage [and] earth penetration."

To my mind, it is hard to reconcile the opinion of the ICJ, underscoring the obligation to "bring to a conclusion" negotiations on disarmament, with these statements supporting the exploration of new types of nuclear weapons more than 30 years after entry into force of the Treaty establishing this obligation. But more importantly, if such efforts proceed, it is hard to understand how we can continue to ask the nuclear "have-nots" to accept additional non-proliferation obligations - and to renounce any sensitive nuclear capability as being adverse to their security. As I have often stated, the continuing pursuit of asymmetric and divisive policies - such as "the early bird gets the nukes"; pitting the interests of so-called "civilized" nations against "uncivilized"; failing to bridge the gap between those inside and outside the regime; and promoting policies that do not take into account the security of all - is unsustainable and counterproductive.

Clearly, the development of a security system that does not depend on nuclear deterrence or nuclear weapons will be a prerequisite to a roadmap for effective disarmament. Until the international community fully engages on the development of such a system, achieving complete nuclear disarmament will remain in the realm of rhetoric.

The difficulty of achieving this ultimate goal - the elimination of all nuclear weapons - should not be used, however, as a pretext for failing to achieve the intermediate step of drastic reductions in existing nuclear arsenals. In that regard, the announcement earlier this month by Linton Brooks - that the US would reduce its nuclear weapons stockpile by nearly half over the next eight years - is encouraging, if the intention is to eliminate the warheads in question in a verifiable and irreversible manner.

Second, any new adjustment to the regime must include India, Pakistan and Israel at the negotiating table. Without their inclusion in and commitment to this broad non-proliferation and security reform, our efforts will fail. None of the three States has joined the NPT, and their development of nuclear weapons or nuclear weapon capability has been outside of the current nuclear non-proliferation regime. Yet their status as known or presumed holders of nuclear weapons has clearly contributed to tensions in their respective regions.

In my view, the logical point for bringing India and Pakistan into the arms control process would be as part of this global "disarmament roadmap". In the case of Israel, this could also be achieved as part of a new security and disarmament structure in the Middle East that would go hand-in-hand with the peace process in that region.

Third, the integrity of the NPT should be ensured. The Treaty now allows any member to withdraw with three months notice. Any nation invoking this escape clause is almost certainly signaling its intent to develop nuclear weapons, which inevitably has serious implications for international peace and security. This provision of the Treaty should be curtailed. At a minimum, notice of NPT withdrawal should prompt an automatic review by the Security Council. And France has recently advanced a number of proposals for the development of a set of pre-agreed actions that would automatically be taken by the Security Council in such a case.

Fourth, the IAEA´s additional protocol should be made the verification standard. Much effort was recently expended - and rightly so - to persuade Iran and Libya to give the IAEA broader rights of inspection, by accepting the authority provided to the Agency by the additional protocol. But the Agency should have the right to conduct these broader inspections in all countries. As I mentioned before, experience has shown that verification of the NPT´s safeguards obligations in a credible manner requires the authority provided by the additional protocol. However, to date, only 56 States, out of the 184 non-nuclear-weapon States party to the NPT, have accepted the protocol.

Collective Security: Reforming the System

My third set of proposals relates to reforming the system for international security. It has four aspects.

First, we can only hope to make meaningful progress if we continue to keep our eyes focused on the security picture - seeking a comprehensive solution that addresses the security concerns of all. As a starting point, we must recognize that the current crisis of international insecurity will not be resolved by anything short of a functional system of collective security, as clearly hoped for in the United Nations Charter.

The Security Council must be able and ready to engage effectively in both preventive diplomacy and enforcement measures, with the tools and methods in place necessary to cope with existing and emerging threats to international peace and security. These should include: mechanisms for preventive diplomacy to settle emerging disputes; "smart" sanctions that can target a government without adding misery to its citizens; and adequate forces to deal with the foreseeable range of situations - from maintaining law and order, to monitoring borders, to combating aggression.

In that context, I believe the Security Council should under certain circumstances authorize pre-emptive measures - collective pre-emptive measures - to address extreme threats to international peace and security, such as to prevent genocide, or to counter an imminent threat to use weapons of mass destruction in an act of aggression.

Second, once these non-proliferation and security measures are in place, we should aim for our legal regime related to nuclear weapons to emerge into a "peremptory norm" of international law - a norm that is part of our collective conscience - not dependent on any particular treaty. In short, as with the ban on slavery or genocide, the renunciation of such weapons should be universal and permanent. This legal norm, however, cannot be contemplated without an agreed disarmament roadmap, and clear subscription to that roadmap by all States possessing nuclear weapons.

Third, we must work collectively to address not only the symptoms but also the root causes of insecurity and instability, including: the regional rivalries and conflicts I have already mentioned; the widening divide between rich and poor, in which two-fifths of the world´s population lives on less than two dollars per day; the chronic lack of good governance and respect for human rights; and the increasing schisms between cultures and civilizations. We should not forget that nearly all efforts to acquire nuclear weapons are to be found in the Middle East and other areas of instability. Effective amelioration of these causes of global insecurity will require political resolve and more balanced "North-South" relations.

Consider the current imbalance: as a global community, we spend $900 billion every year on armaments, $300 billion on subsidies to farmers in wealthy nations, and only $60 billion on development assistance to the developing world. Improving our performance in this "global distributive justice" will go a long way towards pre-empting many of the security threats - let alone the social ills - that affect our planet.

Finally, our work to achieve consensus on these proposals should proceed with the initiation of an expanded public dialogue. Organizations like your own, the Carnegie Endowment for International Peace, should work to refine these proposals and ideas, and to bring them to the attention of governments and opinion leaders. As I indicated earlier, we should work to further stimulate public discourse on these ideas, at all levels of civil society, to make the global community understand that our survival is at stake - but that we can, in fact, solve the international security dilemma, including the nuclear dilemma, within our generation and within our own time.

In my view, the proposals I have outlined today - as well as those that have been developed by others - should be the focus of a summit on non-proliferation and global security, possibly in connection with the NPT Review Conference next year. The outcome of such a summit would be an agreed package of 'non-proliferation and security measures' that would build on existing arms control and security regimes but adapt them to present day realities.

Conclusion

As I see it, we have before us two possible courses of action. We can wait for the unthinkable to happen; or we can take notice of the writing on the wall and begin to act today.

With the continuing erosion of the effectiveness and even the legitimacy of the present arms control and security structure, we must have the wisdom and the foresight to understand - as has been aptly stated - that "as we are collectively menaced, so we must collectively act." I repeat that it is time to abandon the unworkable notion that it is morally reprehensible for some countries to pursue nuclear weapons, but morally acceptable for others to rely on them. Our aim must be clear: a security structure that is based on our shared humanity and not on the ability of some to destroy us all.

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International Atomic Energy Agency

Vienna International Centre, PO Box 100
A-1400 Vienna, Austria
Telephone: +43 (1) 2600-0, Facsimile +43 (1) 2600-7

Official Email (/contact/official-mail)