

**THE PROLIFERATION OF WEAPONS OF MASS DESTRUCTION
AND
INTERNATIONAL HUMANITARIAN LAW**

-

Current Challenges, Effective Responses

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WELCOME ADDRESS

Ambassador Maurizio MORENO

President of the International Institute of Humanitarian Law

The question of the proliferation of weapons of mass destruction remains one of the most important priorities on the international agenda.

The international community is facing a time where new actors, including non-State actors, are involved at different levels in the conception, production and potential exploitation of these lethal weapons.

The perceived threat of weapons of mass destruction has furtherly increased in more recent years and is a source of major concern to our public opinions, to our people due to their indiscriminated effects; the growing risk of their proliferation has profoundly influenced international security and homeland security policies of a number of countries. In Iraq, as we know, the alleged possession of weapons of mass destruction has been considered a *casus belli*.

The dominant international legal activity on WMD has traditionally been focusing on the negotiation and implementation of arms control treaties with different objectives; the objective of deterring the use of such weapons; the objective of prohibiting their emplacement and testing in specific areas; the final objective of promoting disarmament.

I think there is a growing awareness of the need of revisiting, refining , adapting the international humanitarian law to new threats that, as in the case of WMD, are particularly complex and challenging.

The Institute of Sanremo has the primary goal of contributing to the dissemination, respect and development of the humanitarian law in all its aspects.

We are today pleased to be able to offer this unique framework, the well know framework of the dialogue “in the spirit of Sanremo” to host this workshop on “*The proliferation of Weapons of Mass Destruction and International Humanitarian Law – Current Challenges, Effective Responses*”. Our common purpose is to highlight the new challenges confronting the international legal framework concerning weapons of mass destruction, and to identify the approaches better suited to deal with its deficiencies.

This initiative has been made possible thanks to the invaluable support of the Italian Ministry of Foreign Affairs.

I’m very happy to welcome all the participants, scholars, experts on international humanitarian law that are here today; a special word of gratitude goes to Ambassador Carlo Trezza, former Permanent Representative of Italy at the Conference on Disarmament in Geneva, now in charge of disarmament and non proliferation affairs at the Italian Foreign Ministry, who will open the workshop.

I would like to congratulate Dr. Giorgio Franceschini, from the Peace Research Institute in Frankfurt, scientific coordinator of the seminar, who devoted time and energy to organize the session and will outline and moderate the debate.

Thanks again to all the participants and to my friend and colleague Alessandra Molina, who is at the origin of this initiative.

I’m sure that the discussion will be productive and conducive to other initiatives in this crucial field.

OPENING ADDRESS

Minister Carlo TREZZA

Italian Ministry of Foreign Affairs, Multilateral Political Affairs Department

The Italian Ministry of Foreign Affairs is glad to support the organization of this workshop on the issue of Proliferation of Weapons of Mass Destruction and International Humanitarian Law.

I have been asked to convey to the organisers and participants the warmest greetings from Foreign Minister Massimo D'Alema, Deputy President of the Council of Ministers.

The Italian Government is fully committed to pursue the objective of disarmament and non proliferation both in the field of weapons of mass destruction and in the conventional area. We are as committed to the implementation of our obligations in the field of International Humanitarian Law and welcome the joint discussion of these two issues during this workshop. There is no better venue to address these problems than the International Institute of Humanitarian Law of Sanremo. I take this opportunity to warmly congratulate its President, Ambassador Maurizio Moreno, for his appointment and wish him all success.

As a government official in charge of disarmament and non proliferation affairs, I have dedicated prevalent attention to what I would define "humanitarian disarmament" with special reference to conventional weapons which are those currently used in present conflict situations. Restrictions on the types of weapons permitted in armed conflicts have existed for thousands of years, ancient codes of war prohibited means and methods of warfare

considered inhumane. In more recent times rules of warfare have been laid down in legally binding agreements.

As an individual state and as member of the European Union and Nato, Italy fully subscribes and promotes the Convention on Certain Conventional Weapons and its Protocols, which we consider one of the principal instruments of international humanitarian law linked to armaments.

A meeting of States party to this Convention has just been concluded this week in Geneva. The core issue discussed was the prohibition of the use, production, transfer and stockpiling of cluster munitions that cause unacceptable harms to civilians. This is a new challenge in the field of humanitarian disarmament. Italy is ready to work towards the establishment of an international discipline either in a multilateral framework, or among a restricted group of likeminded countries.

Ten years ago Italy was among the early subscribers of the Ottawa convention which totally prohibits antipersonnel land mines. Critics say that disarmament and non-proliferation commitments are usually undertaken with regard to weapons either obsolete or no longer indispensable for national security. This was not the case at the time we engaged in the Ottawa process: antipersonnel land mines had been part, until then, of our arsenals and giving away their production also entailed serious economic and social problems. However humanitarian considerations prevailed over security and socio-economic reasons.

The humanitarian factor was what originally motivated the international community to engage in the field of disarmament and non proliferation of weapons of mass destruction. The casualties and sufferings caused by chemical weapons during World War I was the determining factor that led to the Geneva Protocol of 1925 prohibiting the use in war of chemical and biological weapons.

The introduction of the nuclear arms factor into the strategic equation after World War II, changed the general outlook with regard to the weapons of mass destruction issue. Their very existence and possession by some states had an impact on the strategic balance and obliged the international community to go beyond the humanitarian factor. Chemical, biological and nuclear arsenals became the essential element of the disarmament, arms control and non proliferation agenda. The prohibition of their use, prompted by humanitarian reasons, was also extended to include production and possession, destruction of existing stocks, non proliferation and verification. The ban contained in the Geneva Protocol was therefore enlarged and strengthened by the adoption of the Biological Weapons Convention of 1972 and the Chemical Weapons Convention in 1993 which provide both for a total ban.

In my view, the Chemical Weapons Convention is a “success story”. It is the most advanced instrument reached so far: it prohibits a whole category of weapons of mass destruction; it establishes a permanent international implementation structure -the OPCW- and sophisticated verification instruments. The main remaining problems are those of universalization - not all countries have adhered to the Convention - and of stockpile destruction: not all States parties are in a position to eliminate their stocks on time.

Unlike the Chemical Convention, the Biological Weapons Convention is not supported by a permanent structure and it was not possible to agree on a verification protocol. However a new review process was agreed at the 2006 Review Conference in Geneva where, for the first time, a small permanent implementation support unit was established. This is the minimum to ensure implementation and compliance.

There is a tendency to put chemical, biological and nuclear arms in the same basket. However nuclear weapons are different from many angles. There is a juridical difference: unlike chemical and biological weapons, nuclear

weapons are not totally prohibited. The Nuclear Non Proliferation Treaty allows five countries to possess them. Three nuclear capable states are not party to the Treaty, one state has withdrawn from the Treaty. Although chemical weapons have been used in recent conflicts, they are no longer considered to have significant military value: they can kill people but, unlike nuclear weapons, cannot destroy military targets: weapons of terror rather than weapons of war.

The threats represented by the North Korean nuclear explosion, the grave concerns caused by the clandestine Iranian nuclear program -both coupled with significant ballistic capabilities- prompted the international community to focus its attention on the problems of nuclear proliferation. Hidden WMD procurements supplied by a clandestine nuclear network and the demonstrated readiness of terrorist groups to use the most lethal available means, fully justified the priority given to non proliferation.

Proliferation problems were addressed swiftly and effectively by the international community through the adoption of U.N. Security Council resolutions, the interdiction of illicit trafficking, the establishment of national legislation to prevent and punish proliferation, international cooperation to eliminate existing stocks. These developments were aimed at strengthening the Nuclear Non-Proliferation Treaty which is a cornerstone of international peace and security and is based on three main pillars: non proliferation, disarmament and peaceful use of nuclear energy. After the progress made on non-proliferation, there is now the expectation that the pendulum should swing towards the nuclear disarmament pillar. The reductions of warheads already made are significant: unofficial estimates indicate that since the Cold War the number of overall nuclear warheads was more than halved. From around 60,000 to around 27,000.

To achieve nuclear disarmament the international community opted for a gradual approach embodied in 13 practical steps adopted during the 2000 NPT

Review Conference. For Italy and for the European Union, the priorities are clear: the first steps should be the entry into force of a treaty prohibiting nuclear testing (CTBT) and the negotiation of a treaty banning the production of fissile material for weapons purposes (FMCT). With such treaties in force, all nuclear capable states would no longer be able to improve the quality and increase the quantity of their weapons. This would be a major step forward and this goal is within reach. Additional measures can be envisaged while pursuing arms control and arms reductions. I refer –for instance- to the so called “negative security assurances”: nuclear weapons should not be used against non nuclear-weapons states. Since they are linked to the concept of non-use, these measures would have humanitarian implications. However, as in the case of chemical/biological weapons, the final objective pursued by the international community is and must remain, the total elimination of nuclear weapons.

This presentation is based on the existing legal instruments established by the international community during the past decades. New ideas are emerging. One of the roles of scholars and experts in this field is to study these issues and to suggest possible new approaches. I shall listen with great interest to ideas and suggestions that will be presented during this workshop.

FRAMING THE DEBATE

Giorgio FRANCESCHINI

Peace Research Institute Frankfurt (PRIF)

For more than a century humanity has been seeking to limit and - if possible - to outlaw methods of war with indiscriminate and particularly cruel effects. For that purpose international humanitarian law explicitly prohibits the development, production and stockpiling of chemical, biological and toxin weapons, and strongly inhibits the deployment of nuclear weapons. Although their possession is not explicitly outlawed, the use of nuclear weapons is hardly compatible with the principles and rules of international humanitarian law, i.e. discrimination between combatants and civilians, proportionality, avoidance of unnecessary suffering and environmental degradation.

The abhorrence for these weapons of terror - as Hans Blix et al. call them¹ - lead to different sets of principles, norms, rules and procedures for each weapon category: these regimes - the chemical, biological and toxin weapon regime as well as the nuclear non-proliferation regime - aim at minimizing the risks associated with these weapons of mass destruction (WMD).

So far, these regimes proved to be quite successful in limiting the spread and use of WMD and give rise to the hope that eventually all weapons of terror might be eliminated in a not so far future. In the nuclear field we observed a significant slowdown in the proliferation pace over the last decades and a growing number of nuclear U-turns (states, which gave up nuclear weapon programs), whereas in the chemical weapon field the destruction of old stockpiles is well under way. Even in the bio-weapon regime encouraging signs

¹WMD Commission, Weapons of Terror, Freeing the World of Nuclear, Biological and Chemical Arms, United Nations Pubns 2006.

could be identified in the last Review Conference in December 2006, and after a decade of stagnation and disagreement a new momentum in the implementation of the treaty can be expected.

But, although the NBC regimes seem to work at the present, still a pervasive feeling of discomfort persists in the international arena about their effectiveness for the future: are the Biological and Toxin Weapons Convention (BTWC), the Chemical Weapons Convention (CWC) and the Non-proliferation Treaty (NPT) – so far. The cornerstones of WMD control - still adequate to tackle the spread of nuclear, biological and chemical weapons in the 21st century? Are we – as Prof. David Fidler put it²– “in a new WMD environment” which requires new legal responses, or are the incumbent multilateral regimes still powerful enough to contain the spread of these weapons of terror?

We hope to find some answers to these questions in our workshop today, where we will focus on three issues: first, how is international law in general and international humanitarian law in particular addressing the threat posed by WMD?

Second, what are the current challenges in each of these categories? How many loopholes are left for would-be proliferators and what will be the effects of recent innovations in the biological and life science, in chemistry and in nuclear engineering?

Thirdly, we will review a number of recent approaches which - allegedly - tackle some of the shortcomings of the regimes and improve their effectiveness: the Proliferation Security Initiative (PSI), the UNSCR 1540 and the controversial option of anticipatory (“pre-emptive”) self-defense in the face of WMD threats. We will discuss their compatibility with international law, and assess their effectiveness and their sustainability.

² David P. Fidler, *Weapons of Mass Destruction and International Law*, The American Society of International Law, 2003. <http://www.asil.org/insights/insigh97.htm>

Recently, the effectiveness of traditional legal approaches in controlling weapons of mass destruction has been questioned by three lines of arguments.

First, the advancements in the biosciences, the innovations in chemical technology and the spread of dual-use nuclear technology over an increasing number of countries represent a serious challenge for the existing arms control regimes. It is not clear, how all the issues can be resolved without altering the fragile fabric of the corresponding multilateral treaties. In the nuclear field this means that the existing non-proliferation regime has no legal tool to curb the spread of enrichment and reprocessing technologies, which can be used both for peaceful or military purposes. As both technologies are more easily available on the nuclear world market today - via legal and illegal supply networks -, this problem will exacerbate in a nuclear renaissance which is expected in the next decades. Similar concerns can be formulated for the chemical regime and - even more drastically - for the life sciences.

Secondly, the terrorist attacks with poison gas in the Tokyo underground in 1995 and the still unresolved Anthrax strikes in the aftermaths of 09/11 2001 revealed an unexpected vulnerability of modern industrial societies in the face of apocalyptic and nihilistic terror groups. The interest of international terror organizations in WMD - a novelty in the history of transnational terrorism - further accrues this sense of defenselessness of open and interdependent modern societies. These new terror groups - unbound by any rule and any norm - may represent a serious challenge to the existing arms control regimes, which were centered around sovereign, functioning and norm-bound states and did not foresee the scenario of failed states and global terror organizations.

Finally, a further concern is represented by the decreasing commitment of a growing number of states to global disarmament and arms control. This trend is today most visible in the nuclear domain, where the erosion of the global nuclear order is well under way. A collapse of the nuclear non-proliferation

regime would inevitably have strong repercussions on the fields of biological and chemical weapons and could bury the whole order of restraint and marginalization of WMD.

It is therefore our duty, as a community of scientists, legal experts, diplomats and practitioners, to develop visions on how to strengthen these fragile regimes and preserve them for the current century. This workshop might give a small contribution to this undertaking, as it brings together scholars of international law, technical experts in biological, chemical and nuclear arms control, diplomats and military staff.

I am happy to welcome thirty experts from twelve different countries to our workshop with most diverse backgrounds and am looking forward to interesting presentations and stimulating debates. Thank you.

INTERNATIONAL LAW AND WEAPONS OF MASS DESTRUCTION

Daniel NORD

Stockholm International Peace Research Institute (SIPRI)

Thank you, ladies and gentlemen,

I would like to thank Ambassador Moreno, Dr Franceschini and the Institute in Sanremo for inviting me to speak at this conference. I have actually been here before a couple of years ago on a conference on international humanitarian law and truly enjoyed it. Given a chance to come to a warmer place when sitting in the gloomy November darkness in Stockholm, I naturally seized upon the opportunity. But the main reason for coming here is of course that it's a timely and important topic.

I must also admit that given this distinguished and knowledgeable audience, it's quite a challenge to take the floor to deliver a statement regarding weapons of mass destruction and international law, but my aim here is to lay the basis for the coming discussions as well as provide some of my own conclusions which might function as food for thought. On several issues I will not go into detail since that will be dealt with in later sessions during the day.

First, regarding the theme of the conference "the proliferation of WMD and international humanitarian law, if we focus on IHL alone we will not cover the most relevant international legal norms regarding WMD. Instead we also have to cover especially international arms control treaties and today also Law of the Sea and international norms regarding air transports. So, as is not unusual in legal systems on a national level, there are several legal methods to target a problem – the proliferation of WMD.

But if we start with the relationship between International Humanitarian Law, or the laws of armed conflict, and WMD:

The first somewhat successful attempt came in 1899 with the Declaration on ban on use of projectiles that spread asphyxiating gases and with the regulation in the 1907 Hague Convention IV with regulations of warfare on land, where it, among other things, prohibited the use of poison or poisonous weapons. Events during WWI with the extensive use of chemical weapons proved that this was far from sufficient and in 1925 the Geneva Protocol was adopted and banned the use of asphyxiating, poisonous or other gases as well as bacteriological weapons (since then this also includes viruses) as a means of warfare in an international conflict. The Protocol did allow for use of chemical and biological weapons as means of reprisal and some 40 states added reservations when signing the treaty where they specified this right. In 1969 the UN General Assembly adopted resolution 2603, which declared that the ban on use of chemical and biological weapons reflected generally recognized rules of international law and thus were binding also on non-parties to the Protocol. If it might have been a bit controversial from a legal point at the time that is certainly no longer the case, since now chemical and biological weapons have both been totally banned through the Biological and Toxin Weapons Treaty, which did not in itself contain a ban on use but instead referred to the 1925 Protocol, and the Chemical Weapons Convention which does also contain a ban on use.

These are the rules specifically targeted at WMD, but the “normal” rules of IHL are also relevant for WMD. If one looks at the inherent character of traditional WMDs: they are indiscriminate, they can cover a large area or a large part of the population, and they have poisonous effects on humans, animals and environment, either as their method of attack or as a follow on consequence of

their usage, its clear that the use of WMD is very hard to carry out in a way that meet the legal standards of IHL.

The most central norms would be the rules on distinction and proportionality, the necessity to distinguish between civilians and militaries and that only military targets may be attacked as well as that the risks and anticipated losses for the civilian population must stand in proportion to the military advantage expected from the attack. These norms are together with the ban on means and methods of warfare that cause unnecessary suffering also widely recognized as being part of customary international law. Also to be added to the list of norms that are of relevance is the ban on means and methods of warfare that cause widespread, long term and severe damage to the environment, which is to be found in Additional Protocol 1 of the 1949 Geneva Conventions, but which is not recognized by some nuclear weapons states as reflecting customary international law.

Given these rules, it seems very difficult to use nuclear weapons, the only WMD not outright banned (yet), in a manner that does not violate international law. It would need to be a military target clearly separated from the civilian population, such as a group of warships at sea or a target located at land where there is no civilian population in the surroundings. This is reflected in the advisory opinion from 1996 of the International Court of Justice regarding the legality of threat or use of nuclear weapons, where the court stops just short of banning the use: it leaves open the possibility of use in extreme circumstances of self defence where the state's survival is at stake, but that such use would have to be in accordance with IHL which it believed was very difficult. Also, one further relevant norm would be the Martens Clause which "makes usages (or practices) among civilized peoples, the laws of humanity and the dictates of public conscience obligatory, even in the absence of a treaty", which roughly

translates into: “Just because its not officially banned does not mean that its allowed”.

So if we look at IHL and weapons of mass destruction it doesn't look too bad: the use of chemical and biological weapons is banned and nuclear weapons are very difficult to use without violating IHL. However, there are technical developments that might pose challenges and may change this legal situation.

With regard to nuclear weapons there is an effort to make them more “user friendly”. The combination of more accurate delivery systems together with research on war heads with a low yield, could result in a nuclear weapons system where the arguments against usage based on the rules of distinction, proportionality and unnecessary suffering will be weaker. There are programs with the aim of making the weapons more usable and less indiscriminate, whether this is technically feasible is another matter, but the fact that these programs exist are disconcerting. Normally the development of a weapons system that is less indiscriminate and more targeted than the previous one would be welcomed from the perspective of IHL, but in the case of nuclear weapons this would risk undermining the current “taboo” on the use and it is a dangerous path to take.

Another technical development that is a legal challenge for a WMD regime is the research on non-lethal or less than lethal weapons. In the CWC there is a ban on the use of riot control agents as a means of warfare but that toxic chemicals may be used for law enforcement, including riot control. With the current development of chemical and biochemical NLW, this ban and in fact the whole prohibition of chemical weapons and chemical warfare risks being undermined. NLW has already been used, with a rather lethal effect one may add, at the siege of the Dobrovka theatre in 2002 and there are many military operations short of armed conflict, such as peace keeping or peace enforcing operations as well as operations carried out in what was formerly called the

global war on terror, where there may be a temptation to operatively use NLW. So far, states have done little to address this legal challenge in a serious manner but suffice to say that if there is a situation where the efforts to restrict the development of chemical NLW have failed and states instead have agreed that the CWC is not at risk and where chemical NLW are being used operatively, then as a minimum there would be a need to develop specialized regulations on use as well as to define if some NLW are too inhuman to be allowed at all under the normal IHL rules such as the rule on unnecessary suffering.

Apart from IHL there are other sets of international law that are of perhaps greater relevance for WMD: the arms control and disarmament treaties. They were negotiated during or immediately after the Cold war, and the main ones are, in chronological order: NPT, BTWC and the CWC. To this group the CTBT can be added, adopted in 1996 but still not in force, and the FMCT, where there was initial agreement on a mandate to start negotiations in 1995 but which has been stalled since then.

All were adopted, strengthened or with negotiations underway to strengthen it during “The Golden Era of Multilateral Arms Control”, the early and mid 1990:s. This was the time with reduced international tensions, the necessary technical and legal expertise was there and arms control had not been discredited.

Today, multilateral arms control is not as popular and much of the expertise have gone into retirement or been engaged in other international security policy issues. Arms control has been seen as some as a failure and not sufficient for the challenges of today, as being pointless and in fact actively dangerous because they lull states into believing in a security which not exists. To me these views are too far reaching and not something I would agree with, however the fact that this conference is organized is evidence that there are some real and/or perceived problems.

But before going into them it can be a good exercise to try get some perspective on the problems. The NPT has 189-190 member states (depending on whether the DPRK is defined as party or not). Today there is one member state, Iran, which is under scrutiny for possible violations and the others have either left the treaty or ceased violating it. The CWC has 182 member states and none is, at least officially, accused of violating the prohibition of chemical weapons (although intelligence organizations in some countries publish information that members states have violated the convention). With regard to the BTWC, with 159 states parties, it is more or less the same story.

The multilateral treaties on WMD are universal, or almost universal, and the if figures on compliance would have been the same for human rights treaties or a trade treaties we would have been extremely positive: “What, only one violation by a state party of the ban on inhuman and degrading treatment?! And almost universal accession?!”. The judgment would be that the system is a success, not a failure.

But that’s not how it’s portrayed and not how we think. Why is that? I can see 5 main reasons.

1. Obviously, WMD are very dangerous with a capacity to annihilate cities or smaller countries. Their existence and the threat that they compose should not be taken lightly. One violator in a sensitive region is one too many and the consequences will affect all in the region and probably outside as well.

2. The heritage of the thinking during the mid 1990s and onwards in especially the US, which was that basically arms control did not work and that the experience of Iraq during 1980s was an excellent example of this. Further it was not in the interests of the US to be constrained by multilateral treaties in a world, which was in effect a uni-polar world with the US as the leading power. This led to a distrust of arms control measures, affected the US policy and in effect also the rest of the world, since US is the main player and the others to a

large extent will have to adapt. This also led to the belief that inspections don't work, which still is there, even though the experiences of UNSCOM and UNMOVIC has proven different.

3. The attacks on 9/11 changed the US threat perception totally. It is not acceptable to risk that an organization such as Al Qaeda would get access to WMD, since the assumption is that they would use the weapon if that were to happen. To counter this threat traditional arms control was identified as being too weak and more active engagement was needed, including the use of force if necessary.

4. There is also an increased skepticism and/or cynicism on behalf of the non-nuclear weapon states regarding the prospects for nuclear disarmament under the NPT. All evidence indicates that the nuclear weapon states will retain their nuclear weapons for the foreseeable future, with the nuclear weapon states in the process of modernizing their nuclear forces or just having finished such a program. There is a feeling among some of the non-nuclear weapon states that they were fooled in 1995 when they agreed on the indefinite extension of the NPT, since the disarmament parts of the agreement have not materialized: there is no CTBT in force, there are no FMCT negotiations underway and the nuclear weapon states are not disarming.

5. And finally the landscape of proliferation risks and security threats are different than during the "Golden Era". Non-state actors can be users, as with "Aum Shinrikyo" in 1994 and 1995" and there are threats from organizations such as Al Qaeda that they would be willing to use if they have access, furthermore non-state actors can be providers of WMD technology, as with the AQ Khan network. There is a diffusion of dual use technology that can be used for WMD purposes and the ongoing globalization with the increased possibility of communication of ideas and information as well as people and goods, all

mean that there is a different type of threat than what traditional arms control has been designed to meet.

However, with regard to the last observation above of the increasing role of non-state actors and the difficulty to address this with traditional arms control measures based on international law agreements, it is to be noted that similar challenges are facing other fields of international law as well. The realities of internal armed conflicts with failed states, rebels/bandits operating, private military companies emerging as a new actor, and wars fought basically for profit, are difficult to meet within the current existing norms of IHL such as Common Article 3 and the Additional Protocol 2. Also with regard to human rights, where the basic norm and indeed the foundation for the legal system has been that it is the state that must respect human rights and which violates them if it doesn't, there are now discussions on the human right obligations of non-state actors. So even if this will not take away the problem, we can at least take some comfort in that we are not alone in this challenge.

To end this statement I would like to give five brief examples of what actions should be taken at this stage with regard to international law and weapons of mass destruction.

- There is a need to maintain and if possible strengthen the existing arms control treaties and mechanisms. The existing mechanisms are admittedly not perfect and certainly not sufficient in themselves but they are important tools in the overall toolbox which is needed against the threat from weapons of mass destruction
- The nuclear weapon states must do more with regard to disarmament of warheads and to reduce the risk of accidental use of nuclear weapons.
- If need be new international law regulations should be developed (e.g the Convention on Nuclear Terrorism and the new protocol to IMO

Convention on Suppression of Unlawful Acts Against Maritime Navigation). Legality adds legitimacy.

- Make sure that states actually implement what they have agreed to do. Often they don't have the necessary legislation or bureaucracy needed and needs practical support and training.
- Focus also increasingly on the non-state actors as providers. There is a need to develop methods to inform them and to reach a level of self-regulation among researchers and businesses. There is simply too much trade going on and too many technologies are being produced that is of relevance from a non-proliferation aspect, that it will be increasingly hard to counter this with the traditional non-proliferation methods of export control.

WEAPONS OF MASS DESTRUCTION
NATO WEAPONS OF MASS DESTRUCTION (WMD) CENTRE

Baldwin De VIDTS
Legal Adviser, NATO

Creation of the Centre at the 1999 Washington Summit

I. Guiding Principles

1. One of the innovative policies adopted by NATO at the Washington Summit in April 1999 was an initiative to ensure the Alliance's ability to address the challenge posed by the proliferation of Weapons of Mass Destruction (WMD). This Initiative, an integral part of the Alliance's ongoing adaptation, integrates political, legal and military aspects of Alliance work on WMD issues and complement other existing international efforts in this area. The centerpiece of the Initiative is the creation of a WMD Centre to facilitate Alliance-wide coordination on proliferation matters.

2. NATO's latest Strategic Concept points out that, despite positive developments in the strategic environment, the security of the Alliance remains subject to a wide variety of military and non-military risks, which are multidirectional and often difficult to predict and assess. In this regard, the proliferation of chemical, biological, radiological and nuclear weapons and their means of delivery is a matter of serious concern. In spite of progress in strengthening international non-proliferation regimes, major challenges remained with respect to proliferation.

Despite efforts to prevent it through diplomatic means, proliferation continues to pose a direct threat to the international community. Some States,

including on NATO's periphery and in adjacent regions, seek to sell or acquire CBRN weapons and delivery means. Commodities and technology that could be used to build these weapons systems are becoming more common, while detection and prevention of illicit trade in these materials and know-how continues to be difficult. Non-State actors have also shown the potential to create and use some of these weapons.

II. The Initiative

3. The WMD Initiative should be viewed in the context of the Alliance's existing approach to proliferation issues. It seeks to expand the Allies' understanding of proliferation issues, to focus appropriate attention on WMD risks, and to coordinate the activities of the various NATO bodies involved in proliferation matters.

To this end, the WMD Initiative will:

- Ensure a more vigorous, structured debate at NATO leading to strengthened common understanding among Allies on WMD issues and how to respond to them;
- Improve the quality and quantity of intelligence and information-sharing;
- Support the development of a public information strategy to increase awareness of proliferation issues and efforts to support non-proliferation;
- Enhance existing programmes which increase military readiness to operate in a WMD environment and counter WMD threats;
- Strengthen the process of information exchange on national programmes of bilateral WMD destruction and assistance;
- Enhance the possibilities to assist one another in the protection of their civil populations against WMD risks.

The WMD Initiative integrates political, technical and military aspects on WMD issues and complement, not supplant, existing international regimes and arms control efforts responding to proliferation.

III. The WMD Centre

4. A WMD Centre was created in the NATO International Staff in Brussels to improve coordination of all WMD-related activities at NATO. It strengthens political consultations related to non-proliferation, as well as defence efforts to improve the preparedness of Alliance forces and contribute to national efforts to protect civil populations.

The Centre:

- Maintains the matrix of bilateral WMD destruction and management assistance programmes, a database designed to expand information-sharing between member States on national contributions to WMD withdrawal and dismantlement in the former Soviet Union;
- Serves as a repository for information on WMD-related civil response programmes in Allied Nations;
- Supports the Alliance Groups (SGP (Senior Politico-Military Group on Proliferation), DGP (NATO Senior Defence Group on Proliferation) and CJP (Joint Committee on Proliferation)) dealing with WMD proliferation and through them, the North Atlantic Council;

IV. The 2002 Prague Summit

5. At the Prague Summit in 2002, NATO launched new initiatives aimed at countering the proliferation of Weapons of Mass Destruction. Those initiatives are in three broad areas.

The first is to examine options for addressing the increasing threat of missile proliferation and the threat this constitutes to the international

community, their populations and forces. New feasibility studies are made to look into possible missile defence configurations to protect territories, populations and forces. This will be a long-term process but the kick-off was given at the Prague Summit.

The second initiative is in the area of defence against chemical, biological, radiological and nuclear weapons. There were five initiatives which were launched in 2002 and which the Heads of State and Government endorsed for rapid implementation. The five initiatives are: (a) to constitute an event response force to counter these types of threats, (b) to set up deployable laboratories to assess what type of agents one might be dealing with, (c) to look at the creation of a medical surveillance system, (d) to create a stockpile of pharmaceutical and other medical counter-measures to react to such threats and (e) to improve training across the whole spectrum of this area.

The third block of initiatives at Prague was to endorse the implementation of the civil emergency plan of action for this particular threat and, there, particularly, to share national assets across NATO and with Partners.

V. The role of the WMD Centre

6. The WMD Centre was created at the 1999 Washington Summit, the role of the Centre developed and is really three-fold: to improve intelligence and information-sharing about proliferation issues; second, to assist Allies in enhancing capabilities to work in a WMD environment and thirdly, to discuss and bring the Alliance's support to non-proliferation efforts in the world, generally.

The Centre is a small group of about ten people, counting experts in the field of chemistry, microbiology and people who have worked in arms control and non-proliferation in the past and who try to support Alliance groups that deal with those issues.

With regard to cooperation with other international organisations, the principle which defines the NATO relationship with such organisations is that of complementarity. The Centre tries to assist non-proliferation regimes in the world. NATO Allies support all of the non-proliferation efforts in the world. A couple of examples, NATO Allies have spoken out in the past, supporting the Non-Proliferation Treaty. The Centre wants it to be universal. NATO wants it to be strongly enforced. In the same way NATO is working with international organisations, such as the Organisation for the Prohibition of Chemical Weapons, to talk about how to create joint exercises at some stage, which would exercise a response to the potential threat coming from chemical weapons. In the same vein, NATO is working closely with Organisations such as Interpol and the World Health Organisation, to be aware of their programmes which, in many ways, are running in the same direction.

7. The WMD Centre during the following years will focus on:

- Actively supporting efforts at building a political consensus on missile defence;
- Working with Alliance members to fully implement all of the Prague commitments and develop proposals for new NATO counter-proliferation initiatives in response to the continuing threat of WMD proliferation and terrorism;
- Establishing robust working relationships with other international and regional governmental organisations and non-governmental organisations to complement and support NATO counter-proliferation efforts;
- Working with non-NATO Nations (PfP, Mediterranean Dialogue, ICI, Contact Countries) to exchange information and establish cooperative non-proliferation efforts to prevent access by non-State actors to Weapons of Mass Destruction and ballistic missile related items.

**LOOPHOLES IN THE NUCLEAR NON-PROLIFERATION REGIME:
THE CASES OF IRAN AND NORTH KOREA**

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Part I - The non-proliferation regime: the structure and its loopholes

a. The non-proliferation regime: definition and structure

In order to debate the status and the perspectives of the contemporary international nuclear non-proliferation regime, first of all we need to recall that the legal network thought to deter nuclear weapons from springing up, commonly known as “the nuclear non-proliferation regime”, is articulated through a network of multilateral, regional, bilateral and unilateral treaties and other standard - setting arrangements. Amongst these, the NPT maintains its primacy in the regulation of the non-proliferation issue.

b. The non-proliferation regime: loopholes

As we argue, the NPT has to be considered the hub of the matter. However, the recent cases of North Korea and Iran have shown us that this Treaty does not work as well as we hoped.

The first limit affecting the success of the NPT derives from the fact that the treaty is a product of the Cold War era and of its bipolar asset, as can easily be deduced considering the following three aspects.

First of all, the NPT is unable to face up to the present geopolitical context. The distinction made by the NPT between 5 Nuclear Weapons states (also the permanent Members of the United Nations Security Council, i.e. USA, Russia, China, France and UK) and Non Nuclear Weapons states has nourished

the sense of inequality perceived by several countries, and the conviction of the existence of a double standards system. NATO's nuclear sharing, whose compliance with Article I and II of the NPT is still controversial, is seen as aimed by a different goal, and results in a further distinction among the Non-nuclear weapons countries. The perception of this asymmetry is further reinforced by Article III of the NPT, which provides for a subjection to the IAEA Safeguards only for the NNWS.

Furthermore, the refusal by India, Israel and Pakistan, i.e. three nuclear countries, to participate in the NPT, and the subsequent request made to them by the NPT members to agree to the NPT as Non-nuclear weapon states (undoubtedly a discriminatory request, but in defence of the NPT's authority) is now frustrated by the Us-India Deal and by the avail that this deal has received from the international community.

But this treaty is also a product of its time if we consider the present economic development of some countries. Although it is true that a large number of states included on the list of Non-nuclear Weapon states are third-world countries, and so unable to afford the high costs related to a Research and Development plan, mass production and deployment of a nuclear deterrent, it is also true that countries such as the non-nuclear EU states, or Japan and South Korea, could, if they so desired, develop a nuclear weapon prototype in a few months.

Moreover, given worldwide globalization, the circulation among world actors of nuclear technologies and know-how is becoming easier day by day and is no longer linked, as understood in the NPT, to the will of the nuclear states.

Finally, we now know that a new frontier in the struggle against the proliferation of nuclear weapons is represented by nuclear terrorism. We are now fully aware that a nuclear market exists (take, for example, the Abdul

Qadeer Khan case), a market to which a state with nuclear ambitions can turn. But this option is not provided by the NPT.

So also countries possessing minimum technological infrastructures, manpower and means can decide to increase their geopolitical specific weight by obtaining a minimum nuclear deterrent to be used as a means of political dissuasion rather than for effective strategic purposes.

The second limit is inherent to the typology of legal instrument involved. A treaty is no more than an agreement, and it can not be imposed neither in its subscription nor in its keeping. Two of the most fiercely debated issues relating to the NPT are, in fact, compliance and withdrawal together with the lack of automatic sanctions in the case of un-compliance and withdrawal.

The third limit undermining the NPT's effectiveness is related to the energy policy adopted by the Treaty. The NPT chooses to fight military nuclear proliferation and, at the same time, to stimulate civil nuclear proliferation granting the inalienable right to the peaceful use of the nuclear energy. This does not take into sufficient consideration the dual-use aspect of the technology required for the nuclear fuel chain, both for the uranium enrichment and for the spent fuel reprocessing.

Part II - The proliferation threat versus the inalienable right to a peaceful use of nuclear energy: the cases of North Korea and Iran

a. The Proliferation Threat, the Withdrawal Scenario and the Domino Theory

As I have already explained, if a country has a self-sufficient civil nuclear program, then it potentially has within its grasp a virtual military nuclear program.

Neither the NPT nor the IAEA Safeguards system are actually capable of preventing entirely the possibility that an NNWS member of the NPT could

secretly develop, under the conditions posed by the NPT, a clandestine non-civil nuclear program, using the facilities granted by the NPT for a civil nuclear program. Then, once having obtained significant quantities of HEU or WgrPu, such an NNWS could withdraw from the NPT and the IAEA Safeguards Agreement. This is what the experts call the “Break-out scenario”.

Unfortunately, the old Domino Theory developed under the US President Eisenhower now seems perfectly suited to this worldwide proliferation scenario, as demonstrated by the impact that the cases of North Korea and Iran are having on fragile geopolitical areas like the Middle East and South Asia.

In this framework, the NPT does not help with its acknowledgement of an “inalienable right to develop research, production and use of nuclear energy for peaceful purposes”. According to a feasibility evaluation, the more probable option for an NNWS member of the NPT is to develop an undercover uranium enrichment program in the place of spent fuel reprocessing capabilities. The second hypothesis, in fact, requires nuclear tests as well as technology that it is not available to a modern state with only average technological capability.

The enrichment process is often considered the threshold beyond which a nuclear process can arouse suspicion. However, the NPT does not prevent the possibility of enriching uranium. This is why the Iranian issue is mainly evaluated in terms of IAEA obligations, and why it is only by means of supposed non-conformity with Article II of the NPT that we can call into question Iran’s right to have a nuclear program.

b. Non-compliance and withdrawal: Iran and North Korea

One of the problems related to the NPT’s effectiveness is the eventuality of a non-compliance with the NPT: the debate is concentrated on what type of failure or violation of safeguards would lead to a report to the Board of Governors and on what kind of failure constitutes the legal paradigm of “non

compliance". In reality, at every turn the decision is referred to the IAEA's inspectors and to the Director General.

Another obstacle is represented by deficiencies in the verification system: the NPT in its Article III obliges the NNWS to conclude a safeguard agreement with the IAEA, but this agreement admits inspections only in those facilities openly declared by a country, not in those which are undeclared or clandestine. The 1997 Additional Protocol strengthened the IAEA verification system, but we can once again turn to the case of Iran, this time in order to demonstrate that voluntary adhesion actually hinders attempts to glean information. Moreover, for certifying without any doubt the absence of clandestine nuclear material, once a country has been found by the IAEA not to be in compliance with its safeguards undertakings, the Comprehensive Safeguards Agreement and the Additional Protocol are not sufficient. Furthermore, the specific resolutions adopted by the Board of Governors lack legally binding verification authority.

The other issue that undermines the NPT's effectiveness is the withdrawal possibility: the case of North Korea, although unique in the history of the NPT, is nevertheless emblematic. North Korea, in fact, obtained the plutonium for its military nuclear program through the international supplies granted to NNWS by the NPT. Then, in 2003, the DPRK announced that it was terminating its suspension of its 1993 withdrawal notice.

Article X of the NPT gives each member state the right to withdraw from the Treaty if that country decides that extraordinary events, related to the subject matter of the Treaty, have jeopardized the supreme interests of the country.

Again, we have to select which cases in point come into the formulation of the article X; but again, in spite of the discussion that has arisen over the DPRK's stated reasons for withdrawing, from a legal and procedural point of

view the DPRK has withdrawn, as the UNSC resolution 1695 has indirectly and *a posteriori* recognized.

However, the DPRK issue is relevant also because it raises another question: can the right of withdrawal also be granted to member states that have previously been declared by the IAEA to be in non-compliance with the Safeguards Agreements?

Finally, the North Korea episode raises another consideration. Between the first declaration of non-compliance and the UNSC resolution of 2006, the UNSC revealed a thirteen-year long inability to act.

c. A possible way out

Now the question is: how to grant the right of a nuclear program for peaceful uses whilst simultaneously pursuing the non-proliferation instances?

We can talk about some legal solutions, starting from the adoption of a generic and legally binding UNSC resolution which should:

1) Discourage the withdrawal by states recognized in non-compliance with the Non-proliferation Regime. This goal can be pursued by establishing that this withdrawal does not release them from the breaches of the treaty which occurred before withdrawal, by stipulating that the withdrawing state continues to be bound by the peaceful use and safeguards commitments for all nuclear material and facilities existing and under safeguards at the time of withdrawal; and finally by assuming that such withdrawal represents a threat to international peace and security as defined under article 39 of the UN Charter.

2) Strengthen the IAEA Safeguards system, imposing a universal and legally binding adoption of the AP as the new NPT Safeguards regime.

Another step in the right direction could be to support the ratification of the CTBT (Comprehensive Test-Ban Treaty), to resume international

negotiations on the adoption of the FMCT (Fissile Material Cut-off Treaty), and to work on the harmonization of the entire nuclear non-proliferation regime.

CHALLENGES FOR THE CHEMICAL WEAPONS CONVENTION

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Introduction

The Chemical Weapons Convention (CWC) opened for signature in Paris, on January 13, 1993, after over twenty years of careful negotiation within the various permutations of the UN disarmament conferences in Geneva. Entry into force and the establishment of an international organisation, the Organisation for the Prohibition of Chemical Weapons (OPCW) came four years later.

Current membership of the Convention stands at 183 member states, with the most recent ratification being from the Congo in December 2007. The CWC has a strong membership considering that it is the youngest of the Conventions addressed at this workshop; however one of the most salient challenges for the Convention to overcome is the non-membership of a number of states such as Democratic People's Republic of Korea, Egypt, Iraq, Israel (signatory state), Lebanon, and Syria.

The Chemical Weapons Convention is a disarmament convention as well as a non-proliferation treaty i.e. it addresses both 'horizontal' and 'vertical' proliferation, and it tasks the OPCW with monitoring and assisting its implementation. The year 2007 marked the Convention's tenth year after entry into force, and the year provided the appropriate occasion to mark the success of the Convention and demonstrate it as evidence that consensus-based decision making between states can lead to tangible results.

In order to simplify this discussion, it is possible to distinguish between two types of challenge: those that originate from the Convention itself or,

internal challenges; and those that result from developments in areas independent of the Convention, or external challenges. This boundary between types of challenge may seem artificial, and the fact is that disentangling specific challenges is a near impossible task; however for the purpose of this short paper a reductive approach was useful.

Internal challenges, as I have labelled them, represent such issues as: organisational or political issues; differing interpretations of the Convention; technical issues, for example, pertaining to the destruction of chemical weapons; and, challenges relating to the implementation of the Convention itself. On the other hand, some examples of external challenges might relate to changing security environments, developments in science and technology such as the gradual dissolution of scientific peripheries, globalisation and changing markets, and developments in other non-proliferation or disarmament regimes.

This paper addresses three sources of challenge that have given rise to significant discussion from scholars in the field – it certainly does not attempt to cover an exhaustive list of challenges – these sources of challenge are: the particular context of the CWC negotiations; exemptions from the Convention’s prohibition; and, technical change.

The negotiation of the Chemical Weapons Convention

Talks and negotiations for the Chemical Weapons Convention began in the late 1960s and culminated with the Convention being opened for signature in 1993. Multilateral negotiations were held under the patronage of the UN General Assembly, more specifically within the Geneva disarmament conference in its various permutations, but the drafting of the CWC was also heavily based on inconsistent bilateral talks between the two superpowers of the Cold War, the United States and the Soviet Union/Russian Federation. Other stakeholders

including non-governmental organisations such as Pugwash and the chemical industry were also involved during the latter stages of the negotiations.

The context of the negotiations was extremely important, it set the Convention in a geopolitical setting characterised by a bipolar East-West divide (demonstrated by the structure of the negotiations led by the bilateral discussions), by a largely static chemical industry, and by 'old war' dynamics. But since the conclusion of the CWC text the make-up of the world has changed significantly. First of all, the legacy of the Cold War has been replaced by a different type of dynamic, namely the North-South divide between industrialised and developing countries. The opening of trade policies have also had important repercussions for the global chemical industry; it is no longer the static industry of the 1980s but it has evolved into a dynamic industry characterised by fluid ownership structures, high levels of technological innovation, increased outsourcing, and a general movement towards new markets³. The unprecedented profile now given to international terrorism is also a challenge that will be very difficult for a Convention so rooted in a state-warfare outlook to overcome. The fact remains that the Chemical Weapons Convention is a treaty designed for rational, norm-based states but it is clear that it will have to adapt to the current security context in order to remain a valid barrier against the use of chemical weapons.

Another challenge which is perhaps for some the most significant at this time, is the delayed destruction of chemical weapon stockpiles by the main possessor states, namely the United States (US) and the Russian Federation. The text of the Convention sets the deadline to ten years after entry into force in that state party, with the possibility of a five year extension. This extension was granted to both member states in question placing the final deadline at 2012, but with Russia having only completed 24% (40,000 metric tonnes) and the US 45%

³ See Parshall, G.W. (2003) Trends in Processing and Manufacturing that will Affect Implementation of the Chemical Weapons Convention, *Pure and Applied Chemistry*, Vol. 74 (12), pp. 2259 - 2263.

(29,000 metric tonnes) the odds are stacked against them. Although this would not be malevolent non-compliance – the reasons for delay are many and vary from unrealistic targets set out in the CWC text, to management and financial hiccups⁴ – the two states would (should they overrun their deadline) be in technical non-compliance with the Convention and this is to be taken seriously if confidence in the regime is to be preserved.

Exemptions from the prohibition

The introduction to this workshop cited the “erosion of the international norm against weapons of mass destruction”. No more evidently can this be illustrated than in the discussions surrounding the implications of the possible development and use of so-called ‘non-lethal’ chemical weapons for the Chemical Weapons Convention.

Reports of renewed interest and in ‘non-lethal’ chemicals and their use in the Moscow theatre siege in 2002 have added fervour to the debate over the interpretation of the Convention’s clause on purposes not prohibited by the Convention⁵. These purposes not prohibited include industrial uses, agricultural research, medical uses etc., but also “law enforcement including domestic riot control purposes”. This ambiguous sentence – a product of the compromise text – leaves the relationship between ‘law enforcement’ and ‘domestic riot control’ open to interpretation and is seen by many commentators as the Convention’s loophole. The various interpretations by different states parties of the

⁴ This is based on the work of Paul Walker, further discussion is available from the report of the 52nd Pugwash CBW Workshop, *10 Years of the OPCW: Taking Stock and Looking Forwards* available at <<http://www.pugwash.org/reports/cbw/52nd-workshop-2007/52nd-workshop-report.htm>>

⁵ There are a number of articles on this subject, for example: Fidler, D.P. (2005) The Meaning of Moscow: ‘non-lethal’ weapons and international law in the early 21st Century, *International Review of the Red Cross*, Vol. 87, pp. 525-552; Pearson, A.M., Chevrier, M.I., Wheelis, M. (2007) *Incapacitating Biochemical Weapons: Promise or peril?*, Lexington Books, Lanham; and, Dando, M. (1996) *A New Form of Warfare: The Rise of Non-Lethal Weapons*, Brassey’s, London.

Convention have been documented by scholars⁶ but have not, as yet, been discussed at the multilateral level. Yet, this discussion at this level must occur before real damage to the norm against chemical weapons occurs.

Technical change

Technical change represents both an important source of opportunity and challenge to the CWC; opportunity in so far as it will present the Convention with new alternatives for carrying out the technical functions of the Convention (including assistance and protection measures), and challenge because 1) science and technology will always run the risk of throwing up a new weapon or a new utility for an existing weapon, and 2) technical change represents constant movement away from the snapshot of the Convention text, and thus it requires flexibility on the Convention's behalf.

Coupled with the recent developments in the chemical industry, as indicated above, technical change represents a number of challenges: the challenge of making sure all appropriate regulatory measures are in place as dual-use technology spreads to new places; the challenge to ensure that new utilities for chemicals as weapons do not replace the norms upheld by the Convention; and, as the technical landscape evolves, the challenge for the OPCW's technical secretariat to maintain the effectiveness of the inspection regime as a deterrent against the purposes prohibited by the Convention.

Conclusions

The Chemical Weapons Convention broadly represents a success in the field of non-proliferation and disarmament, but as with any Convention, its successful execution depends on continued review and assessment of its

⁶ See for example: Perry Robinson, J.P.P. (2007) Non Lethal Warfare and the Chemical Weapons Convention, Submission to the OPCW Open-Ended Working Group on Preparations for the Second Review Conference.

functions. *Change* in all walks of life has played a major role in surfacing new challenges and it remains of utmost importance that the CWC remains capable of flexibility as times change. The negotiators of the Convention recognised this and a non-specific definition of a chemical weapon⁷ was used to anticipate new developments in directions that the negotiators could not foresee. The ‘General Purpose Criterion’ remains the safeguard to many challenges outlined in this paper.

Additionally, strong national implementation is a vital requirement. As alluded to in this workshop by Ambassador Trezza, it is of great importance that existing legal frameworks are improved. This can be achieved through further work related to the Plan of Action regarding the implementation of Article VII measures which was adopted after the First CWC Review Conference in 2003. However there still remains a serious deficit in the numbers of states parties with ‘comprehensive legislation’.

Finally, focusing on the improvement of national legislative efforts should not preclude broadening the CWC’s framework to address some of these ‘new’ challenges. In this respect, contacts between the OPCW and other international agencies⁸ (as well as with non-governmental organisations) that have relevant expertise should be regularised and deepened.

⁷ Article II, paragraph 1(a) of the CWC defines chemical weapons as “Toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention (...)”. This *mens rea* definition of a chemical weapon is often referred to as the General Purpose Criterion.

⁸ Some examples of these are: the 2004 UNSCR 1540 Committee, the UNSG Mechanism for alleged use, UNITAR, World Customs Organization.

*CHALLENGES OF THE BIOLOGICAL WEAPONS CONVENTION,
NATIONAL IMPLEMENTATION AND LEGAL ENFORCEMENT*

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The taboo against the use of Biological weapons goes back a long way in history. This stigma is reflected in the international efforts to prevent any individual from becoming a victim of biological weapons through a number of treaties over the last 150 years. The effort to define the rules of war and the treatment of non-combatants puts the Biological Weapons Convention at the centre of humanitarian law.

There is, however, a modern dimension to this issue. Rapidly spreading biotechnology, such as gene engineering and cutting-edge techniques such as RNA interference, have the extraordinary potential to help those suffering from diseases, however, at the same time, they can make the dissemination of a biological weapon more lethal, more targeted and more concealed. We are faced, therefore, with a dilemma weighing burdensome and potentially ineffective security measures against possible global health benefits.

International regimes establish the legal norm against the development of this form of warfare; however, their effectiveness depends on how countries implement their provisions.

The first international agreement on chemical and biological weapons was The Brussels Convention in 1874 on the law and customs of war which “forbids the employment of poison or poisoned weapons” under article 13a. In 1899, states pledged as part of Declaration II not to employ asphyxiating or deleterious gases under The Hague Convention. In 1928, the Geneva Protocol

came into force prohibiting the use of “asphyxiating, poisonous or other gases and of bacteriological methods of warfare”⁹. Finally in the late 60s negotiations on a bioweapons treaty began. The treaty opened for signature in 1972 and came into force in 1975.

The Biological and Toxin Weapons Convention

The Biological and Toxin Weapons Convention’s (BTWC) Article I reads:¹⁰

“Each State Party to this Convention undertakes never in any circumstance to develop, produce, stockpile or otherwise acquire or retain:

(1) Microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes.”

This prohibition provides the basis of the norm against biological weapons and is referred to as the General Purpose Criterion for its emphasis on the intention of the actor.

The General Purpose Criterion provides an obvious thin line between prohibited activities and those allowed under the Convention and pays reference to the particular dual use nature of biology. It is within the rights of a State Parties to develop defences against all forms of biological attack.

There are several instruments within the framework of the Convention whose purpose is to enforce the ban. The first are the Confidence Building Measures which are a politically-binding information exchange regime on treaty

⁹ Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (1928)

¹⁰ Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (1975)

relevant activities and events aimed at building transparency. They cover the following topics:¹¹

- Maximum containment facilities
- Biodefense programmes and facilities
- Outbreaks of concern
- Publications and contacts between scientists
- National implementation
- Past offensive and defensive programmes
- Vaccine production facilities

This mechanism, however, has been plagued with weak participation and an inconsistent quality of submissions. They have not yet been able to build confidence in compliance as they were designed.

The second mechanism also under article V is that of a consultative meeting which can be called by any state in order to “clarify any problem in the application or provisions of the Convention.”¹² This mechanism has been invoked once when the United States was accused by Cuba of disseminating a plant control agent on Cuban territory in 1997.

The third is a mechanism for challenge inspections under article VI of the BWC. Any state can lodge a complaint to the Security Council of the United Nations on compliance to the provisions of the Convention of another state. The Security Council would vote on conducting an investigation with which all States must comply. This mechanism has never been enacted.

Verification under the BWC

¹¹ Final Declaration of the Third Review Conference of the Biological Weapons Convention (1991) BWC/CONF.III/23

¹² Final Declaration of the First Review Conference of the Biological Weapons Convention (1980) BWC/CONF.I/10

The treaty is lacking a legally binding verification mechanism for assessing state compliance. The three instruments mentioned above are by no means substitutes for such a system. Verification, however, under the BWC poses particular problems in that every relevant public, private, government and academic facility must fall within the scope of the system and it must provide reliable enough data to display compliance convincingly.

Discussion on a verification mechanism began at the Third Review Conference in 1991. The Ad Hoc Group of Governmental Experts, which came to be known as VEREX, was directed to study possible verification measures. VEREX laid the groundwork for the Ad Hoc Group (AHG) which became the negotiating body assigned to produce a legally binding instrument. To this end, the AHG met 24 times between 1995 and 2001 and was able to produce a text basing a Verification Protocol on 3 major principles:

- A legally binding declaration system
- Routine and challenge inspections
- All built around the Organisation for the Prohibition of Biological Weapons.

This was long process and there was still some discontentment by the time the AHG chairman introduced a compromised text. However, at the last session of the AHG the United States withdrew its support for the Verification Protocol, citing unignorable risks to the economic viability of its Pharma and Biotech industries. And later at the 5th Review Conference the Verification Protocol was suspended indefinitely by the US's insistence that the AHG no longer meet. The US suggested that States Parties seek other mechanisms for strengthening the treaty other than multilateral verification.

Challenges to biological arms control

The lack of a multilateral verification system and the threat that non-state actors acquire biological weapons are two of the major challenges to the Convention. This is, on the one hand, state compliance, and on the other, the individual's compliance. Thus enforcement of the treaty must be achieved through the different means. While with state compliance it is clear that an international system of verification will be able to build confidence in state compliance if adopted effectively, a multilateral instrument will not help to uncover potential terrorist plots using biological weapons. Efforts to prevent the proliferation of bioweapons to terrorist individuals must rely on efficient implementation of provision of the Convention into legislation and regulation. This is the reason national implementation occupies a central position in the international efforts to strengthen the BWC, including other instruments such as Security Council Resolution 1540. Ultimately, although terrorist use of biological weapons is rare, and there is no indication that there is an increase effort on the part of terrorist organisation to acquire biological weapons, the BWC must be enforceable domestically.

There are, however, other challenges facing the Convention.

Universality of the BWC

A fundamental issue which plagues the Convention is its relatively small membership. As of 2007, 32 years after the coming into force, there are 159 Member States from 192 UN recognised countries. Compared to other arms control treaties, the BWC has a relatively low membership level:

- Chemical Weapons Convention: 182 Member States in 10 years
- Non Proliferation Treaty: 190 Member States in 37 years
- Mine Ban Treaty: 155 Member States in 10 years

Weak participation brings little legitimacy and importance to its obligations. Not to mention of course that these countries for example, Israel, Egypt and Syria, are not bound by the international law prohibiting biological weapon development.

Biological and biochemical non lethal weapons

As advances in the biological sciences are made, an increased interest in the development of biological and biochemical non-lethal weapons has been seen. Non-lethal weapons supposedly promise a more humane conflict, incapacitating enemy combatant rather than killing. An example of a non-lethal weapon is *Fentanyl*. This substance was allegedly used by Russian police in the 2002 siege on a Moscow theatre being held by Chechen militants. The theatre was flooded with the incapacitant, however this exposure resulted in the deaths of at least 168 people.

Apart from the technical restraints which consign lethality to a matter of exposure and dosage, the development of non-lethal weapon presents serious problems to the same arms control regimes which are in place in order to prevent their use. Firstly there are issues of eroding the CWC and the BWC if States Parties make exceptions to how and when these substances can be developed and used. Secondly there are operational issues. In conflict, these substances might be used as a force amplifier when used in combination with lethal weapons, i.e. first the incapacitating agent is used more indiscriminately, after which lethal force is used on enemies. Furthermore, there is the same concern that non-lethal weapons proliferate to non-state terrorist organisations. Their use in warfare or in domestic situations will only speed the proliferation to actors who will most likely be less concerned by their non-lethal nature. Finally, retaliation in conflict is rarely proportional, such that there is a concern that if

non-lethal weapons are used in conflict it will lead to increasingly lethal circle of retaliation.

The position of non-lethal weapons, furthermore, within the international arms control regimes is unclear. The Chemical Weapons Convention allows the use of chemical agents in law enforcement and riot control scenarios. In the BWC no reference is made to the lethality of an agent, however, the General Purpose Criterion might also allow the use of non-lethal agents in domestic riot control if riot control is interpreted as “prophylactic, protective and [an] other peaceful purpose”. Furthermore, biochemical non-lethal weapons, as substances acting on the biochemical processes of the organism, may not necessarily fall under the “microbial or other biological agents, toxins whatever their origin or method of production” as prescribed in Article I.

National Implementation

National implementation is important for preventing terrorist actors from acquiring biological weapons. It allows individuals to be prosecuted and penalized under domestic law as well as providing local law enforcement to take preventative and investigatory actions against infringements. Without effective national implementation, while the state is bound by the obligations of the BWC, there would be no mechanism to enforce the treaty domestically.

National implementation is required under Article IV of the Convention, as well as under Security Council Resolution 1540 of 2004. The relevant sections read as follows.

BWC Article IV:

“Each State Party to this Convention shall, in accordance with its constitutional processes take any necessary measures to prohibit and prevent the development, production, stockpiling, acquisition, or retention of the agents, toxins, weapons,

equipment and means of delivery specified in article I of the Convention, within the territory of such State, under its jurisdiction or under its control anywhere.”

Security Council Resolution 1540¹³:

“...all States, in accordance with their national procedures, shall adopt and enforce appropriate effective laws which prohibit any non-State actor to manufacture, acquire, possess, develop, transport, transfer or use nuclear, chemical or biological weapons...”

National implementation therefore implies passing legislation and regulations in the following areas:¹⁴

- Penal law which should include assisting forbidden activities and specifying penalties,
- Procedural criminal law allowing the enforcement of treaty provision and prosecution,
- Regulations in biosafety and biosecurity, and
- Regulation in the transfer of biological material or equipment, including domestic and international exports and imports.

Recourses to the BWC's deficits

There are two levels on which recourses to these challenges highlighted above can be faced. On the one hand, the Convention and its States Parties provide a platform through which new instruments and regimes can be designed to fill these deficits. With verification off the negotiating table, without any prospect for it being put back on, States have had to adopt other activities.

The intersessional process meetings are a series of meetings between States Parties to discuss issues related to the Convention. Between the 6th and the 7th Review Conferences¹⁵ they will cover the topics shown below:

¹³ Security Council Resolution 1540 on the Non-Proliferation of Weapons of Mass Destruction S/RES/1540 (2004)

¹⁴ Vertic Fact Sheet 1, June 2006, Available online:
http://www.vertic.org/assets/Factsheet%20FS1_WHY.pdf

¹⁵ Review Conferences are organised every 5 years in order review the Convention.

- Ways and means to enhance national implementation,
- Regional and subregional cooperation and implementation of the Convention,
- National, regional and international measures on biosafety and biosecurity,
- Oversight, education and awareness raising and/or development codes of conduct,
- Enhancing international cooperation, assistance and exchange in biological sciences and technology for peaceful purposes, and
- Provisions of assistance and coordination with relevant organisations.

While the purpose of these meetings is, of course, to discuss the above topics, it is also intended to allow more frequent contact between States Parties which will help build common ground, if not only through more personal and frank discussions.

Also within the framework of the Convention is the work of the Implementation Support Unit which was recently created at the Sixth Review Conference in December 2006. This body, for the first time, functions as the gravitational centre of the Convention. It coordinates the meetings, collects assembles and distributes the CBMs. It provides help with National implementation and creates a constant link between all States Parties, and between States Parties and NGOs and the general public.

Outside of the framework of the BWC, other efforts can be effective as well. Non-state actors have an important role to play independent, in most cases, of national interests. Firstly, there is the European Union's *Joint Action in Support of the Biological Weapons Convention* of 2006. It deals with two of the issues mentioned above, namely, Universality and National implementation. The Universality programme consisted of 5 workshops carried out in areas of low BWC membership in order to raise awareness and support for Convention.

The goal was to prompt greater membership. The programme for national implementation consisted of technical expert visits organized in countries who request assistance with drafting or ameliorating national legislation.

Secondly, there is a mechanism which allows the Office of the Secretary General to investigate alleged uses of chemical or biological weapons. These investigations would allow an independent ad hoc inspection with which State Parties must comply. However serious, alleged use is a very restrictive definition for invoking this mechanism. Many would have the instruments widened to include any alleged breaches of the BWC.

While NGOs have a limited access at the multilateral decision making process, the small community of biological weapons experts is often sought for its opinions. In this light, NGOs have had mixed successes in lobbying states. There are, nevertheless, a number of projects whose aim are to strengthen the ability to prevent the use and proliferation of biological weapons, for example:

- VERTIC: National implementation measures project,
- BWPP: BW monitor,
- Hamburg Research Group: trade monitoring system,
- Sunshine Project: builds transparency in the US biodefence programme, and
- Outreach to scientists, education and awareness raising being carried out in a number of institutions, including Bradford University, Harvard Sussex Program, BWPP.

Conclusion

The Biological Weapons Conventions, despite its numerous deficiencies, is the strongest legal norm against the proliferation and development of biological weapons. Although we face different challenges today as was faced at the time it was created, the BWC still has a role to play in international security

and should not be abandoned. Rather it should be adapted to the current challenges while keeping in mind the broader issues and the original goals which was the multilateral dimension of biological arms control.

*THE PROLIFERATION SECURITY INITIATIVE (PSI):
AN EFFECTIVE RESPONSE TO WMD THREATS?*

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1. Introduction

I would like to thank the Institute for inviting me to speak on this issue today. My presentation will be divided into four parts:

- Background on BASIC's PSI project;
- Key features of PSI;
- The key findings of BASIC's research project; and
- Conclusions and future research.

2. BASIC's PSI Project

BASIC is a transatlantic arms control and security think-tank. With offices, staff, advisors, and governing board membership on both sides of the Atlantic, we play a unique role as a transatlantic bridge for policy makers and opinion shapers.

The Proliferation Security Initiative (PSI) is now just over four years old. Nearly 80 participating states are now committed to working cooperatively to curtail trafficking of weapons of mass destruction (WMD), their delivery systems and related materials on the seas, in the air and on the ground. Our interest at BASIC has mainly focused on maritime aspects of PSI.

Security interests in maritime areas are not a recent development. It is evident by the long-held concerns related to piracy and narcotics trafficking, reinforced by 9/11 and its aftermath, that the security of maritime

transportation--like the security of international civil aviation--is a subject of intensive scrutiny. The main concerns are three-fold.

First, the possibility that terrorist groups might once again attack shipping but on an even greater scale than the October 2000 attack on the *USS Cole* or the attack on the French oil tanker *MV Limburg* off the Yemen Coast two years later;

Second, it was feared that terrorists might employ a ship as a vehicle to launch an attack on a target such as a port or another ship possibly using a WMD; and

Third, that terrorist groups would attempt to exploit weaknesses in the global sea container system and use international shipping as a means to transport individuals or weaponry, in particular nuclear, chemical, biological, and radiological devices in preparation for a terrorist attack.

It is the third scenario that carried the larger threat and the one that PSI is designed to forestall. From the very beginning we took the line at BASIC that this was an idea that had merit and growth potential. But only if it is done right. To this end we began thinking about how it could be made more effective and more congruent with international law.

In 2005 we received funding from the UK Economic and Social Research Council to continue to track and analyze implementation of the initiative, and to carry out research on the implications for international law and international security.

To date we have published eight papers covering policy and operational aspects of the PSI, including an in-depth report of how it relates to the international law of the sea and the outcomes of a roundtable discussion in DC in September last year - the first of its kind by an NGO specifically devoted to PSI.

We have also set up a special section on our Web site devoted to the issue: <http://www.basicint.org/nuclear/counterproliferation/psi.htm>..

3. Key features of PSI

Frustrated efforts to prevent the delivery of a shipment of North Korean SCUD missiles to the Yemen in December 2002, added further impetus to the PSI launch. President Bush formally announced the initiative on 31 May 2003, in Crakow, Poland. The PSI is framed by a loose set of interdiction principles agreed at a meeting in Paris in September 2003. These principles call for improved intelligence sharing and enforcement and/or strengthening of existing laws. Second, PSI conforms to the Bush administration's preference for assembling informal coalitions to address international problems as opposed to building new multinational institutions. Thus, the mantra from day one has been that: "PSI is an activity not an organisation".

PSI certainly seems to be an issue that draws out either strong support or scepticism in equal measure. Supporters point to the growth in the number of states that back the initiative; the eight US bilateral ship-boarding agreements to expedite searches of suspicious cargoes (the most recent one concluded with Mongolia in October); the support of the United Nations in Resolution 1540 and the former UN Secretary-General Kofi Annan in his March 2005 speech; the regular Joint Interdiction Exercises and Operational Expert Meetings; and a number of successful interdictions.

Sceptics tend to fall into two camps: those who complain that it lacks real substance (it is all smoke and mirrors and brings little new to the table) and those who are concerned by some of its legal implications and under-representation in some strategically important regions - leaving major players like India and China outside the ring, despite overtures by the US to bring them in.

For example, bringing in the Indonesian government would provide the PSI with greater access to one of the world's critical choke points-the Straits of Malacca-through which a quarter of global trade passes each year.

4. Key findings from BASIC's research

4.1. Our assessment of the state of the PSI four years after its founding suggests that it is in reasonably good health and has helped to reinforce the global norm against proliferation (at a time when other factors have seriously undermined it). The number of participating states continues to grow and several interdiction operations have been conducted since 2003 (at least 12 and possibly as many as 24, although few, if any, details are in the public domain). But as a fledgling enforcement mechanism, the PSI has only had a partial impact on controlling the spread of nuclear, chemical and biological material and missile technology.

4.2 The role of the US government, and especially the State Department, was crucial in establishing and nurturing the PSI. US proponents are keen to trumpet the benefits of the ad hoc multilateralism at the heart of the PSI. The close working relationships among (some) key participating states, with shared intelligence before and during the interdictions, is also likely to minimise mistakes and breaches of international law. Thus, the likelihood of an interdiction turning into an international crisis remains unlikely.

4.3 Having reviewed the original aims and motivations for establishing the PSI through discussion with some of its key US 'founding fathers' it is clear that most seem satisfied with progress. There appears to be no likelihood of the United States relinquishing its leadership role within PSI or in down-grading the initiative within its counter-proliferation toolbox. Indeed, a deepening of US engagement in PSI is much more likely, as confirmed by the passing of the '9/11 recommendations' legislation in the US House of Representatives earlier this

year (which calls for an expanded and strengthened PSI). Indeed, in the aftermath of North Korea's nuclear test in October 2006, government officials in many countries called for the PSI to be specifically targeted to prevent imports into North Korea, thus underscoring the importance they place on it.

4.4 While participating states have agreed to broaden the scope of the PSI, by (a) strengthening their efforts to interdict financial transactions between proliferators and suppliers, and (b) concentrating on combating the black market networks, illegitimate businesses and front companies involved in global WMD proliferation, the PSI still suffers from some key political, legal and operational flaws that continue to hinder its legitimacy and viability as an international non-proliferation regime. Specific weaknesses include its lack of global coverage, issues of jurisdiction and the lack of a formal organisational structure.

4.5 On the importance of flag states and especially open registries, often referred to as 'flags of convenience' (FOC), in illicit trafficking of WMD, our interim findings suggest that there is some evidence to support the view that FoCs do increase security vulnerabilities, and make it easier for terrorists to smuggle drugs, people, contraband, and arms, critical to financing their operations – and also potentially the illicit transport of WMD materials. For example, the al-Qaeda network has successfully exploited lax regulatory procedures in several FOC states and may at one point have controlled several vessels registered under more than one convenience flag. Similarly, the A Q Khan network also made use of FoC flagged vessels to transport nuclear equipment and technology.

4.6 In the future, participating states are likely to continue to broaden the remit of the PSI in order to counteract many other aspects of proliferation activity. Increasingly, the PSI is likely to target specific trading routes between states of concern, in particular Iran and North Korea and may extend its range to

areas of weak central authority and smuggling routes exploited by non-state actors like terrorist groups, organised crime syndicates and weapons traffickers.

4.7 However, our analysis of two hard cases— Iran and North Korea— suggests that while the PSI has a role in denying access to technology, equipment and materials for their nuclear and missile programmes, its effectiveness is likely to be constrained by several political and operational obstacles.

4.8 Nonetheless, participating states could attempt to apply the PSI to Iran and North Korea in three ways, by:

(a) Conducting interdiction operations on key trading routes and entry points;

(b) Acting against Tehran and Pyongyang's principal suppliers of nuclear hardware; and

(c) Intercepting aspects of 'soft' proliferation including the tracking and seizure of financial transactions that support and enable the transfer of prohibited technology and equipment.

4.9 If implemented successfully with the backing of regional powers and neighbouring states, all three approaches have the potential to slow Iran and North Korea's rate of technological development. Therefore, the PSI has the capacity to act as a limited enforcement mechanism and increase the political and financial costs of pursuing uranium enrichment (for Iran) and the maintenance of nuclear capability (for North Korea).

4.10 The constraining political and operational obstacles include: a lack of support from either China or South Korea (making interdiction efforts against North Korea more problematic); the challenge of identifying and then targeting effectively all active and potential nuclear suppliers to Iran and North Korea; and the complexity of intercepting 'soft proliferation' transfers, such as technical data, knowledge and expertise and financial transactions. If the PSI participants

could (a) improve intelligence on Iran and North Korea's nuclear acquisitions and procurement networks and (b) develop a more integrated strategy that incorporates all three approaches then the effectiveness of the PSI is likely to increase, despite the lack of support from several key countries.

5. Conclusions and future research priorities

Michael Beck of the US Center for International Trade and Security has it about right when he describes the PSI as “at once the most oversold and the most promising non-proliferation initiative to emerge in decades”. So far the reaction of states can be grouped into three broad categories: an inner core of 15-20 states, led by the United States and some of its closest allies; around 60 other states that have signed up to the initiative, but are bit-part players; and the Rest of the World, which is either agnostic or sceptical.

While the PSI is undoubtedly maturing into a useful and pragmatic and accepted counter-proliferation measure, it is important to keep it in perspective. Interdiction is located at the ‘last resort’ end of the spectrum, which means the other layers of control and discipline have failed. And it is in the nature of last resort measures that they can be effective in exceptional cases, but cannot be relied upon if the exceptions become too numerous. In other words, the availability of the capability as demonstrated by the PSI in no way downgrades the importance of the wider integrity of the non-proliferation regime

There are several lines of research arising from this project, some of which we are already pursuing and others that we hope to undertake subject to raising sufficient funding. The first concerns open registries. Based on gross tonnage, almost one-third of the entire shipping industry is registered under 10 open registries alone, so we would like to continue our mapping research on the extent to which this represents an increased risk of WMD trafficking and

whether measures to curb loopholes surrounding 'flags of convenience' are politically and economically viable.

Second we are also committed to continuing to track developments in the PSI and to suggest ways to strengthen the initiative, as part of our broader work on cooperative non-proliferation within the transatlantic security community. In the US, for example, in the run up to an election in which foreign policy is expected to play a decisive role in determining the outcome, it seems certain that the US role in the world will be a major topic of debate right through the next Presidential election cycle. With changes in the leadership in many key maritime countries, there is an opening for new counter-proliferation and non-proliferation ideas that has not existed for years on core issues of international policy.

Third, could the PSI be adapted to become the key policing mechanism for a new initiative towards the global elimination of nuclear weapons? This latter vision has been given greater weight by the January *Wall Street Journal* articles of, collectively, Shultz, Kissinger, Perry and Nunn, and then Mikhail Gorbachev. If funding can be obtained, we would like to pursue the question as to how the PSI could effectively police the zero option, both in terms of the crucial drawdown to minimum deterrent postures within the nuclear weapon states and in preventing breakout in a nuclear weapon-free world. In any case, Getting to Zero will be the major focus for BASIC over the next 18 months or so.

A fourth priority, again subject to funding, is the whole issue of intelligence gathering, analysis and sharing with respect to PSI. This is an issue that has been largely unexamined and is certainly crucial to the effectiveness of the initiative. It is assumed, for example, that the CIA and other US intelligence agencies work, both on their own and in cooperation with intelligence services in other nations. Since the PSI is a supporting element of the US National

Security Strategy, it would seem logical for the Department of Defense to be a key player.

With PSI interdictions on land, air, and sea, the Army, Navy, and the Coast Guard would also participate in those interdictions. BASIC has previously tracked and analysed US, British and international intelligence gathering activities in relation to the WMD program in Iraq and taking lessons learnt and applying it to intelligence gathering for the PSI seems a natural fit.

Finally, we would also like to undertake a survey of key PSI participating states to assess the extent to which they share the same motivations and loyalty to the PSI as we found within the United States. We have a paper under consideration that explores the UK's role in PSI, but we would also like to explore other national perspectives - and given the participants here today, I look forward to hearing an Italian perspective.

Thank you for listening and I welcome your questions and comments.

***UNITED NATIONS SECURITY COUNCIL RESOLUTION 1540
ON WEAPONS OF MASS DESTRUCTION AND TERRORISM:
A STEP IN THE RIGHT DIRECTION?***

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United Nations Security Council Resolution 1540 (2004) (UNSCR 1540), adopted on 28 April 2004, is one of many international initiatives aimed at preventing the global threat of terrorism involving weapons of mass destruction (WMD). Specifically, the resolution seeks to prohibit and prevent non-state actors (NSA) from acquiring a nuclear, biological or chemical (NBC) weapons capability. This is to be achieved by all UN Member States adopting—and enforcing—a range of national measures, including legislation, to penalize prohibited activity and to secure and protect NBC materials. The resolution complements other practical activities to strengthen physical protection of facilities and related materials (such as the G8 Global Partnership) and the related NBC weapons treaties—the 1968 Nuclear Non-Proliferation Treaty (NPT), the 1972 Biological Weapons Convention (BWC) and the 1993 Chemical Weapons Convention (CWC).

What does the resolution require?

The resolution aims to prevent States using non-state actor proxies in NBC weapons activities by obliging them to refrain from supporting NSA attempts to “develop, acquire, manufacture, possess, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery” (operative

paragraph (OP) 1). While this provision establishes a binding obligation on States, it does not (and for practical reasons cannot) mandate specific implementing measures.

The proliferation and trafficking of NBC weapons is to be curtailed through national laws which prohibit any non-state actor to “manufacture, acquire, possess, develop, transport or use nuclear, chemical or biological weapons and their means of delivery, in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist or finance them” (OP 2).

This provision raises certain definitional problems. The list of proscribed activities is an amalgam of those contained in the respective NBC weapons treaties and, as the terms are to be accorded their treaty meaning, certain difficulties arising out of their operation under the treaties are replicated in the resolution. For example, what is a working definition of ‘manufacture’ with respect to a nuclear weapon? This question has vexed NPT States Parties for many years. The resolution provides a definition for “means of delivery” for the purposes of this resolution only, yet in the biological weapons context, the definition is at variance with that specified in the BWC creating unforeseen problems in interpretation, application and, critically, compliance monitoring¹⁶.

¹⁶ - *UNSCR definition* (footnote to preambular paragraph 1)

“missiles, rockets and other unmanned systems capable of delivering nuclear, chemical, or biological weapons, that are specially designed for such use.”

- *BWC definition* (Article I(2))

“weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.”

(“such agents or toxins’ referring to Article I(1) “microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;”)

Additional, practical measures to prevent proliferation are specified in operative paragraph 3. These require States to: account for and secure NBC weapons and their means of delivery (OP 3(a)); ensure effective physical protection (OP 3(b)); and maintain appropriate effective border controls (OP 3(c)) and export and trans-shipment controls (OP 3(d)).

Again, these provisions reflect obligations contained in the NBC treaties (in the nuclear weapons context, they emulate the principles of nuclear safeguards agreements with the International Atomic Energy Agency (IAEA)), yet their application collectively across the three classes of weapon—nuclear, chemical and biological—is problematic. For example, the requirement to ‘account for’ biological agents, many of which are capable of self-replicating, is difficult to implement in practice, although appropriate physical protection measures go some way to alleviating this problem.

Of course, the resolution is a different legal instrument to the NPT, BWC and CWC and the Security Council has the authority to decide any set of measures to uphold international peace and security. However the similarity between UNSCR 1540 and these treaties, in terms of purpose and language, as well as the specific references to relevant treaties (including the 1980 Convention on the Physical Protection of Nuclear Materials) in the preamble and OP 8 make such comparisons inevitable.

The resolution also established a committee to monitor States’ reports on implementation (1540 Committee) and report to the Security Council in April 2006 (OP 4), which the Security Council subsequently renewed for a further two years (UNSCR 1673, 27 April 2006).

What has the resolution achieved?

Largely speaking, the obligations contained in UNSCR 1540 already apply to a vast majority of States, by virtue of their membership of the

respective NBC weapons treaty regimes (NPT 190, BWC 159, CWC 183 States Parties to date). But membership does not necessarily equate to full implementation of these obligations: decades after these treaties were adopted, many States Parties to these treaties still lack effective national implementation measures. The resolution gives added impetus, in fact a stringent mandate from the UN Security Council, for getting on with the job of reviewing existing measures to identify gaps, taking appropriate and necessary national measures and, significantly, enforcing them.

The resolution's significance, however, is its creation of a legal obligation for non-States Parties to these treaties – both hold-out States and those for whom the treaties are considered a low priority – to take action to prohibit and prevent NSA acquisition and use of NBC weapons. However these States' non-participation in the respective treaty regimes mean they have been largely absent from the discourse on national implementation approaches and practice. Though BWC States Parties, in particular, remain a long way from collectively agreeing specific principles for national implementation, States which have not benefited from such treaty discussions on interpretation and proven practice in national implementation of the not dissimilar obligations in UNSCR 1540 are at a significant disadvantage. While many will already have some relevant measures in place, such as those adopted specifically to implement related international instruments (such as customs, phytosanitary or public health agreements) the process of sensitizing and motivating relevant government bureaucracies and officials to take appropriate action is largely underdeveloped.

The 1540 Committee, aided by a group of experts, has ably reviewed States' reports (even assisting in the preparation of reports) and, identifying early on that States would benefit from further awareness-raising and capacity-building, conducted a string of UNSCR 1540 workshops around the world in cooperation with host States. These efforts are ongoing. The issue of compliance

with UNSCR 1540 is undoubtedly sensitive. It is interesting to note that the committee's report to the Security Council in April 2008 will be on "compliance" (UNSCR 1673, OP 6) rather than on "implementation" (UNSCR 1540, OP 4) in April 2006; a subtle yet notable change in language. The committee has already intimated that it cannot monitor the requirement to *enforce* national measures, in any case. As the approaches which the committee and its experts have taken in working with States to secure implementation reports and address any outstanding implementation obligations, a co-operative approach to achieving compliance is preferable.

As information on States' legislation came to light (through reports and open sources) the Committee has also made this information available on its website ("Legislative Database" <http://www.un.org/sc/1540/legisdatabase.shtml>), significantly enhancing transparency concerning the status of UNSCR 1540 implementation, but also of the respective NBC weapons treaties (aside from the OPCW providing rudimentary information on CWC States Parties' national implementation measures, very little data was previously available with respect to national laws to prohibit and prevent NBC weapons).

The committee has also collated information on the range of assistance providers and continues to work with States to ascertain specific implementation assistance requirements, although its role remains one of assistance co-ordination and facilitation rather than direct assistance provision. This is entirely appropriate, as the committee's mandate is of a limited term and its experts (while each experienced in unique issues relating to UNSCR 1540) cannot provide the depth of legislative and other implementation assistance on the scale required. The existing assistance providers (particularly the international organizations established under the respective treaty regimes) maintain the appropriate expertise for legislative and other national implementation assistance. However these organizations must grapple with

calls to aid non-Member States with what is ostensibly implementation of a separate international legal instrument. Appeals for these States to join the treaties to benefit from implementation assistance which would additionally fulfil the UNSCR 1540 requirements (and, arguably, benefit from the full range of treaty membership benefits) are simplistic, due to the complexity of national policies which have precluded them joining to date. (However ongoing treaty universalization efforts are proving more successful in encouraging new States Parties to adhere to the treaty.)

Is the resolution a step in the right direction?

Obliging all States to take action to ensure that their national laws penalize and prevent NBC weapons activity involving non-state actors through a mandatory Security Council resolution was probably necessary in the current international geopolitical landscape. Not least because States Parties already subject to such obligations under the major NBC weapons treaties have significantly failed to address these issues (particularly in the biological weapons context, for which there is no treaty organization to oversee compliance). The resolution's extension of such obligations to non-States Parties also serves to close the net of potential safe havens for such nefarious non-State actor activity. The wealth of information on States' national laws (or indeed the absence of such information) revealed through State reporting on UNSCR 1540 implementation and the committee's work to collate such information through open sources has significantly enhanced transparency over such matters. However the ability and willingness of States to ensure full implementation and to enforce such measures will remain critical to the resolution's success in achieving its objectives. The resolution could have done more to redress the verification imbalance with respect to biological weapons (compared with nuclear and chemical weapons, for which established treaty verification systems

exist) but the desire for commonality in the approach to tackling the non-State actor threat across all three weapon types precluded this. Arguably, more concerted universalization efforts for the BWC along with agreement on a substantial, sufficiently resourced and effective verification mechanism for the BWC must be sought in future for UNSCR 1540's objectives with respect to biological weapons to be realized.