



ROYAL HIGH INSTITUTE FOR DEFENCE  
CENTER FOR SECURITY AND DEFENCE STUDIES

## Focus Paper 5



### International Proliferation issues, National Consequences and Policy recommendations

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*The views expressed are only those of the author*

#### Abstract :

This article reviews the context allowing non-stateactors to pursue WMD capacity. Capacities, motivations and indicators are briefly addressed. Indirect CBRN threat could directly ensue on Homeland operations, stressing the importance of international cooperation to counter the threat. Finally, solutions to strengthen nonproliferation regimes are proposed and policy recommendations are formulated.

This paper has been written in a series of focus papers comprising other proliferation issues as well as a research paper in the same field of research.

Key words: WMD, non-state actors, nonproliferation regime, counter proliferation.

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## **INTRODUCTION**

The terrorist attacks in New-York (2001), Madrid (2004), London (2005) and recently Mumbai, recall the importance of non-state actors in security issues. The attacks in the Tokyo subway in 1995, add the frightening dimension of possible use of Weapons of Mass Destruction (WMD): non-state actors have found their way to enhance, at least psychologically, offensive capacity. In addition, the intention to use this capacity against innocent civilians in order to cause massive casualties by conventional or non-conventional means has become unquestionable.

Initially, WMD were state ownership. During the Cold War, the massive build-up of nuclear, biological and chemical (NBC) weapons, sustained the vision of mutual assured destruction in case of first use. International Conventions, signed and ratified by a majority of countries under the auspices of the United Nations, led to the reduction of these deadly arsenals. However, not all of these conventions are respected: some hidden agenda's and covert weapons programs prevail, resulting in the ultimate withdrawal from control programs in the frame of these conventions. The collapse of the Soviet-Union added an additional erratic parameter to these security issues: weapons under stringent control have become unwanted economic burdens for new States in the Russian Federation. The menace of "loose nukes" and with it, the possibility of transfer to non-state actors became very real. In addition, orphan sources originating from industrial and clinic use, are still intensively wanted materiel for the production of dirty bombs. These security issues, in often unstable regions of Central or South-Asia, grow into National security problems insofar that each threat can be either conventional or non-conventional. The military and political commitment of Belgium and the EU in these regions on the one hand, and the presence of International Institutions in our capital, on the other hand, induce a permanent latent security issue that has to be dealt with: in these circumstances nothing should be left to chance.

### **1. WMD, PROLIFERATION AND CAPACITIES**

An undisputed definition of the term WMD is nonexistent. Some countries are still using the term "NBC weapons". On the European continent, this term has since long been substituted by the acronym CBRN(E)<sup>2</sup>, which covers the complete spectrum of Chemical Biological, Radiological, Nuclear agents and Explosives. Moreover, not only the weapons, but even their vectors are of equal concern to Western States: together they constitute a real proliferation issue which might threaten Western Europe and even international stability.

Proliferation discourses mostly hold nuclear issues: as will be shown, this is due to the major evidence that can be collected to prove the involvement in nuclear or radiological weapons programs. Proliferation of chemical or biological weapons is a less evident issue since most of the technology needed in this case is "dual use", meaning that it can be used in peaceful applications, as well as in military programs. In 2004, UN Secretary General Koffi ANNAN, formulated concerns about the possibility of a "new cascade of proliferation"<sup>3</sup>. The major cause which could possibly initiate this

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<sup>2</sup> MARCHAND, G., « CBRN going CBRNE : A New Perspective Behind The Words ? », in *IFAS*, June 2007, p.3.

<sup>3</sup> LAVOY, P., *Nuclear Weapons Proliferation in the next decade*, Routledge, 2007, p.60.

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cascade could be the multiplicity of political and (geostrategic) security issues in scattered areas: the covert nuclear weapons programs of North-Korea (DPRK) and Iran have a major impact on the attitude of direct neighbours and their security considerations. In the East, the military build-up of China and the permanent tension with Taiwan are a serious matter of concern to Japan and Australia. Additionally, the lasting military campaign of the US, both in Iraq and Afghanistan, raises questions about the effectiveness of the US-protection in existing alliances. These concerns illustrate the limitations of the confidence building measures and the erosion of existing weapons conventions. The implication of non-state actors, trained in sanctuaries, supplied with heavy weaponry by a myriad of States, increases the risk for proliferation of WMD and their vectors even more. The powerlessness of the UN to enforce disarmament could indeed generate a revival of proliferation, assuming no sanction is effective enough to deter acquisition of WMD.

No one contests the right for peaceful use of nuclear energy, however, the commissioning has to be monitored by the International Atomic Energy Agency (IAEA) to ensure safeguards applications: this implies that no part of the energy program is diverted to favour military programs. The Iran issue has demonstrated how difficult an effective control of activities can be. Conversely, this issue also showed how easily obligations can be circumvented in a political framework where timetables are not adhered to. In this respect, however, time becomes a critical factor: enrichment of <sup>235</sup>U is going on in Iran, and ultimately technology would allow for the production of a nuclear weapon. This outcome would be a major setback -perhaps the last one- for international weapons conventions to be considered as the standard to be pursued.

Existing WMD capacity is still a relic from the Cold War. The major operational stockpiles can be found in the five nuclear weapon states, permanent members of the UN Security Council (P5): Russia, the US, France, China and the UK<sup>4</sup>. Additionally, *de facto* nuclear weapon states – i.e. states which own the capacity without being signatory of the respective weapon convention- are India, Pakistan and Israel. The recent terrorist attacks in Mumbai (November 2008) show the inherent fragility of stability between two neighbours in possession of a nuclear arsenal. In view of the three wars they have fought and the lingering conflict over Kashmir, this situation illustrates the significance to control non-state actor sanctuaries, wherever their location. Multilateral cooperation in this field is an essential part of the restoration of confidence to ensure the adherence to international disarmament treaties. This encompasses international understanding on the outcome of the Iran and DPRK issues.

## **2. MOTIVATIONS, PATHWAYS, INDICATORS AND TRANSFERS**

The “realist view” on the pathway to proliferation considers security issues as a valid reason for the acquisition of the capacity<sup>5</sup>. The “idealist” approach of the problem considers its symbolism and estimates the possession of WMD to be both beneficial and essential to the Nation.

New pathways for proliferation are very different as compared to those followed by the five nuclear weapon states: the present proliferators should rely on dual-use capability in a context of existing weapon conventions and safeguards agreements. Secondly, they should rely on hedging, i.e.

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<sup>4</sup> CIRINCIONE, J., et al., *Deadly Arsenals : nuclear, biological, and chemical threats*. Carnegie Endowment for International Peace, 2005, p.22.

<sup>5</sup> LAVOY, P., “Nuclear Proliferation over the next decade: Causes, Warning signs and Policy responses”, in *Nonproliferation Review*, Vol.13, November 2006, p.434.

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acquiring both infrastructure and experience for the rapid deployment of an operational capability. Third, down the pathway towards WMD, the option remains open whether full assembly of weapons is necessary at all: a complete enrichment program could suffice to settle the prestige of the regime. Finally, but most significant, ambiguity should be maintained in the program to make it appear to the outside world that existing treaties are endorsed. Meant to win time, this attitude also aims to test the political strength of the international community.

Indicators in the realist view consider the safety aspect (survival of the nation) to be an essential aspect in the quest for the weapon. In the idealist approach, the ambition to obtain the weapon can be derived from argumentation unfolded in public addresses of political leaders, economic and technical feasibility studies, and finally the activity of scientists. Technical indicators are very different considering the type of WMD. While nuclear capability needs specific traceable technology, this is much less the case for chemical weapons and even less so for biological military programs. Nuclear enrichment programs need specific centrifuges, weapon technology and electronics, all in focus of export control regimes. Moreover, a non-nuclear weapon state is submitted to the IAEA control: this agency can trigger short notice inspections on sites considered to be suspicious or deviating from the course established by the Non-proliferation Treaty (NPT).

Chemical weapon programs are merely based on dual-use equipment and reagents: none of the available indicators (e.g. export control of chemicals) will deliver definite proof of a concealed weapon program. Only on site inspections (sampling, inspection of production processes, capacity and stockpiles) under the lead of the Organisation for the Prohibition of Chemical Weapons (OPCW) will give the irrefutable proof of existing weapon programs. The same is true for biological weapons. However, under the Biological and Toxin Weapons Convention (BTWC) no safeguards or other control regime is associated to this convention: an *ad hoc* UN structure<sup>6</sup> was mandated during and after the first Gulf war. United Nations Monitoring, Verification and Inspection Commission (UNMOVIC) was dismantled during the summer of 2008, leaving the Biological and Toxin Weapons Convention (BTWC) without executive agency.

Transfer of knowledge, technology and equipment of WMD occurred frequently in the past. Specifically for nuclear issues, the UN-watchdog created a database<sup>7</sup> listing all incidents concerning theft of nuclear or fissile material. The majority of cases concerns only small quantities of radioisotopes or fissile material: not enough to produce a nuclear weapon, but still enough to create a radiologic dispersal device (RDD) or dirty bomb. In most cases, materiel was delivered by former personnel working on a dismantled site that was formerly used for radiologic or nuclear activities. Reasons mentioned for the transaction were mostly related to financial problems. In some cases go-betweens were part of the chain of delivery: the origin of their organization is to be found in organized crime networks. End-users were both states and non-state actors. In Europe, the official export and transit of dual-use equipment has been regulated by the Council Regulation (EC) 1334/2000. The delivery of licenses, however remains a national responsibility. It is worthwhile mentioning that, for the time being, no legislation exists in the field of "soft proliferation", i.e. transfer of blueprints, knowledge, payments or other transactions by means of the Internet. In this domain, efforts have to be made by national lawmakers in order to coordinate action: non-state actors follow the trends, know the laws and rules, hence many Internet-activities remain difficult to restrain. However, since organized crime can be involved in trafficking of WMD sensitive material, cooperation with International Police services (Interpol,

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<sup>6</sup> Following UNSCOM, UNMOVIC was active from 1999 till 2008 based on the 1999 UNSCR 1284.

<sup>7</sup> Illicit Trafficking Data Base (ITDB).

Europol) in order to trace money transfers over the Internet could be an issue in order to achieve results: the European arrest warrant-system could be expanded to other parts of the world, which allows for a broader activity as compared to *ad hoc* systems.

### **3. INDIRECT CBRN(E) THREAT**

Terrorist activities have their impact on both troops in operation, and civilians, not only in regions of conflict but also in homeland activities. The indirect CBRN(E)-threat holds all activities with the aforementioned threat upon military personnel and civilians in homeland actions against critical infrastructure, national and international institutions, and public services aimed at disrupting public life. According to Bunn<sup>8</sup>, even small nuclear devices could be a threat to be considered very seriously in the near future. The IAEA director reported before the UN General Assembly that “The possibility of terrorists obtaining nuclear or other nuclear materials remains a grave threat<sup>9</sup>”, especially with the increasing number of incidents concerning theft of radiological and nuclear material. In this scenario, one has also to consider national stockpiles or transport of chemicals, radiological and biological material as possible targets of sabotage or conventional blast.

In order to oppose this threat “National Contingency Planning” has to be conceptualized and implemented in national doctrines and operational tactical plans. Rehearsal of contingency plans, with all involved actors, is an essential part of Homeland preparedness. Unfortunately, Belgium and some other EU-countries are not yet prepared in this prospect of events. Except the US, some EU-countries have experienced the chaos resulting from multiple and simultaneous terrorist attacks: these are the best prepared for new upcoming events of the same type. Until now, these attacks were all conventional, but trends in regions of heavy conflict have shown that conventional attacks on existing chemical stockpiles or transport are increasing: the outcome is the same as a non-conventional attack. In this framework, Homeland preparedness can be compared to force protection in CBRN(E) environment. Hence, the sequence of actions and materiel that has to be put on scene is comparable. In addition, experience from abroad can be helpful to create additional value for preparation and execution of plans. The minimum requirements for an appropriate action plan encompass a diversity of disciplines as Risk Management Monitoring, Protection for personnel and environment, Render Safe & Disposal of explosives and CBRN material or toxics, Hazard Management, Detection and Sampling and Identification forensics. These are the basic requirements for a local manager (Incident Commander) to obtain situation awareness, mitigate possible contradictory solutions and take appropriate action to return to normal as soon as possible in a safe environment.

A standardized approach for the implementation of the aforementioned items is recommended on both European and NATO-level. National definitions can hamper this approach: definitions deviating

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<sup>8</sup> BUNN, M., WIER, A., Terrorist Nuclear Weapon Construction: How Difficult?, The annals of the American Academy of Political and Social Science, N°607, September 2006.

<sup>9</sup> GRAHAM, B., TALENT, J., World at Risk. The report of the commission on the prevention of weapons of mass destruction proliferation and terrorism, Vintage books, December 2008, p.43.

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from internationally recognized standard terms (f.e. critical infrastructure) and incoherent approaches for risk management are only two issues illustrating unresolved fundamentals.

### **4. THE NONPROLIFERATION REGIME**

At multiple levels, initiatives have been launched to counter proliferation of WMD.

The UN Non-proliferation Treaty (NPT) entered into force in 1970 with a view to stop nuclear arms race. Art.IV<sup>10</sup> however, allows signatory parties to develop peaceful use of nuclear fuel cycles in order to provide nuclear energy. Art.VI<sup>11</sup> stresses the importance of the dismantlement of existing stockpiles of nuclear weapons between the US and Russia. The START I Treaty, which applies this principle, will come to an end in December 2009. The Moscow Treaty<sup>12</sup> would continue the START-effort in order to dismantle warheads down to 1700-2200 for each party by the year 2012. The main issue with the Non-proliferation Treaty (NPT) is that Iran's argument to produce nuclear energy for peaceful use, is explicitly allowed by Art.IV. The concerns of the IAEA are still raised about simultaneous military programs running in Iran, for example solid fuel missile testing, implosion devices and re-entry vehicle technology. On the other hand, India, which is a *de facto* nuclear weapon state, has an energy program supported by the US, with an *ad hoc* safeguards agreement. Especially designed for the occasion, India will be allowed to choose which one of the civilian/military nuclear sites will be inspected by the IAEA. This puts an enormous burden on the systematic and universal approach of Non-proliferation Treaty (NPT) obligations and safeguards. A standard approach in the interpretation and application of the Non-proliferation Treaty (NPT) should be applied in order not to weaken the goals of the treaty. Further reduction of stockpiles, as mentioned above, will be an essential part of this process: in the establishment of confidence-building measures, the P5 will play an essential and exemplary role before any decision can be imposed without dispute. Only a universal comprehensive treatment will create the leverage, which will allow ensure full adherence of parties trying to circumvent obligations.

In order to strengthen the non-proliferation regime, additional treaties will have to be ratified as soon as possible: the Comprehensive Test Ban Treaty (CTBT), already backed up by an exhaustive verification system, should be ratified by the P5. In doing so, the universality of the Comprehensive Test Ban Treaty (CTBT) could be imposed as well. In the same field of concerns, the Hague Code of Conduct<sup>13</sup> (HCoC) intended to rein the proliferation of ballistic missiles, remains unapplied for the time being. The project of a third US site for the Ballistic Missile Defence (BMD) shield against rogue-states<sup>14</sup>, is cause of great concern to Russia. Even the "vectors" of WMD will have to be taken into

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<sup>10</sup> See reference [13] for the complete text of the Art.IV

<sup>11</sup> See reference [14] for the complete text of the Art.VI

<sup>12</sup> Ratified by the US and Russia in June 2003.

<sup>13</sup> UN Res. A/59/91 (2004)

<sup>14</sup> X-band radar in the Czech Republic and 10 interceptor missiles in Poland.

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account if a solid ground has to be reconstructed for the non-proliferation regime. The aforementioned examples illustrate the huge burden that weighs on the Review conferences which, shortly, will be on the agenda.

In addition, multilateral export control regimes, which run on a voluntary basis, have to be strengthened. Amongst these are the Nuclear Supplier Group (NSG), the Zangger Committee (ZC), the Australia Group (AG) and the Missile Technology Control Regime (MTCR). Instead of focusing on economical deals, decision making about export of dual-use technology should consistently be handled, keeping in mind the same goal with which the matching non-proliferation treaty has been created.

At EU-level the WMD policy<sup>15</sup> is based on aforementioned UN-conventions, including the Non-proliferation Treaty (NPT), the Chemical Weapons Convention (CWC), the Biological and Toxin Weapons Convention (BTWC), the Hague Code of Conduct (HCoC) and the Comprehensive Test Ban Treaty (CTBT). This strategy, based on the reinforcement of existing conventions, needs instruments which:

- (1) Accept or enforce existing treaties on a universal basis.
- (2) Provide UN with available expertise to strengthen UNSC in order to dam the circumvention of treaties.
- (3) Provide political, financial and technical support to control regimes.
- (4) Strengthen export control regimes in European cooperation.
- (5) Ensure safety of sensitive material against unauthorized access or theft.
- (6) Tighter identification, control and interception of WMD-material traffic.

The follow-up of these issues is the task of the EU WMD-Center, which promotes coherent action and national application of the strategy. Tactical means have been listed in a CBRN-Inventory<sup>16</sup>, with appropriate early warning systems for each aspect of CBRN(E)-incidents. Operational involvement is trained by State-parties during exercises since 2004<sup>17</sup>. A European Program for the protection of Critical Infrastructure (EPCIP) should address the indirect threat, based on agreed definitions and available instruments.

NATO has its own, military CBRN structure and a Combined Joint CBRN Defence Task Force, earmarked for NRF operations. Civil emergency planning is an additional task provided by the Senior Civil Emergency Planning Committee (SCEPC) with an operational entity called Euro-Atlantic Disaster Response Coordination Center (EADRCC): the desirable response capacity had to be addressed during the spring of 2008 meeting in Bucharest, but the agenda was rescheduled.

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<sup>15</sup> Document 15708/03, published December 10, 2003.

<sup>16</sup> Inventory of EU Instruments relevant for addressing chemical, biological, radiological and nuclear risks. Document 10382/08 published June 05, 2008.

<sup>17</sup> Table-top and field exercises in a Joint and International context

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Political consultations and confidence building measures can be included in the OSCE-structure. The efforts against trafficking of WMD are assumed by the Actions against Terrorism Unit (ATU). However, the major concerns are focused on peripheral issues like combating trafficking in human beings, conflict prevention, human resources, management and finance, democratic institutions and human rights, national minorities and freedom of media. One example of the confidence building issue is the Open Skies Treaty, signed at the end of the cold war: reconnaissance-flights were allowed over the territory and airbases of both NATO and Warsaw-pact countries to encourage further cooperation in a rapidly changing environment.

The aforementioned alliances, treaties and organizations can only have lasting, tangible effects and national consequences insofar the actual application of agreements is encouraged or enforced by national institutions. Failure to comply is often explained by policies deviating from the original international blueprint due to military, geostrategic or economic issues. Another reason can induce the failure of the non-proliferation regime: non-state actors, executing some hidden agenda, can trigger tension or even war by proxy. Strengthening the universal cooperation against terrorism, banning permissive politics and harsh action in the heart of terrorists' sanctuaries can still hamper the acquisition of WMD by non-state actors.

### **5. POLICY RECOMMENDATIONS**

Tactical recommendations can be formulated on different issues. First, emergency planning has to be provided with consistent and efficient command and control, which is not always available. Second, the use of adequate material has to be promoted, especially in a CBRN environment. Reducing costs for the acquisition of communication equipment, sensors or individual and collective protection is unacceptable. Although, some argument these expenses to be excessive since a majority, if not all CBRN-alerts appear to be hoaxes. The choice to be made is important and consequences must be accepted: decision makers will have to assume the responsibility for the victims of that single real incident if budget acquires precedence over safety. In the opposite case, first responders have to be provided with adequate equipment, efficient procedures and training: we have to invest time and money to give the services involved the possibility to mitigate and resolve a real CBRN problem with adequate risk assessment.

From the strategic point of view, national law can be improved to match the goals of the international treaties and export-controls. In the same field, Non-proliferation Treaty (NPT) has to be consolidated: a first trial can still be run on the 2009 Preparatory Committee, but the 2010 Review Conference will be a real test for the non-proliferation regime: either it stands, either it falls apart. If we want to keep it in place, peripheral treaties (CTBT, HCoC, BWC) have to be endorsed. It is known that energy issues could be a reason to develop an independent nuclear fuel cycle with inherent risk for proliferation: fuel cycle management should therefore be addressed in an international context, under the auspices of the UN and its nuclear watchdog, the IAEA.

Early warning systems exist at different levels and in different organizations: often duplicated or dead-ended, these should undergo a rational update, consistent with the actual situation. National Crisis Centers should act as focal point to the international institutions and vice versa. These centers have to encompass adequate cells to ensure national command, control and alerting functions.



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Duplication of functions is also realized in offices which operate in different institutions: a WMD-Center at EU level, for example, should be working together with the NATO WMDC. This would allow for a broader view and provide an additional political branch to the existing military structure.

After 9/11, US Department of Homeland Security (US DHS) was created to face a permanent threat and integrate all departments involved in national security issues. Our investigation has led us to the conclusion that the existing threats can no longer be managed by one single country: therefore, the EU-Directorate General Justice, Freedom and Security should be restructured into an EU-DHS, similar in structure as the US DHS. This would at least allow all EU-members to generate coordinated organization in disaster relief during CBRN and terrorist events (amongst others possibilities). Cooperation with NATO in this respect is possible via EADRCC.

### **6. CONCLUSION**

The efforts to contain WMD threats can be supported by a strengthened nonproliferation regime. In this respect, crucial treaties in extension of the Non-proliferation Treaty (NPT) should be ratified (CTBT, HCoC, BTWC) and strengthened with detailed verification systems: suggestions in this field have been formulated. The nuclear weapon states, signatories of the Non-proliferation Treaty (NPT) and permanent members of the UNSC, are the major actors capable to reinvigorate the non-proliferation regime for states and non-state actors. However, the third Ballistic Missile Defence site in its actual design constitutes an essential impediment for the reinforcement of the Non-proliferation Treaty (NPT) sustaining treaties, raising tension amongst parties. Additionally, non-state actor sanctuaries and geopolitical influences in the Middle-East and South Asian region, are interwoven with the aforementioned parties interests, requiring a global approach to solve the exposed problem.

The existing cold war legacy of WMD stockpiles does not necessarily constitute a threat for the future: in that respect, essential upcoming meetings such as the Non-proliferation Treaty (NPT) Review Conference in 2010, the Biological and Toxin Weapons Convention (BTWC) Review Conference of 2011 and the CWC Review Conference of 2013, should not be neglected in order to avoid the "cascade of proliferation". The position of the new US Administration and a strong common position of the EU will be key elements in the process of confidence building, to manage course changes towards progress and take a stand in the reinforcement of the non-proliferation regime.

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- [4] Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their destruction: <http://disarmament.un.org/wmd/bwc/index.html>
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[12] Treaty on the non-proliferation of nuclear weapons: <http://disarmament.un.org/wmd/npt/npttext.html>

[13] Art.IV of the Non-proliferation Treaty states:

1. Nothing in this Treaty shall be interpreted as affecting the inalienable right of all the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with articles I and II of this Treaty.

2. All the Parties to the Treaty undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy. Parties to the Treaty in a position to do so shall also cooperate in contributing alone or together with other States or international organizations to the further development of the applications of nuclear energy for peaceful purposes, especially in the territories of non-nuclear-weapon States Party to the Treaty, with due consideration for the needs of the developing areas of the world.

[14] Art.VI of the Non-proliferation Treaty states:

Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control.