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The Threat of Nuclear Terrorism

December, 2007

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1. Introduction

This paper has the purpose to address the subject of nuclear terrorism in the light of contemporary times. The concern with nuclear terrorism is not to be taken lightly, much less the concern with the nuclear weapons themselves. It is of international interest to put a stop to the constant fear of a nuclear attack. Attacks that previously would come only from sovereign states, and now they can come from non-state actors as well like terrorist groups.

As it will be shown in this work, the preoccupation with nuclear terrorism is not something that can be washed away with simple procedures. Unfortunately the means to be used to keep terrorists from attacking are not completely successful due to the nature of the adversary. How to “scare” someone that does not fear the consequences, even if the imminent one is death?

States need to cooperate and work together to fight the war against nuclear terrorism. If there is a problem catching the “bad guys” then let make as difficult as possible for them to get us. That can be achieved. Securing nuclear and radioactive weapons and materials is one way to go. Sharing information on the enemy until he has no more places to hide and no one else to turn to is another proposal. Knowledge and information are very important elements. Conventions, international cooperation, international organizations’ support, all these are elements to make this battle a possible one to win.

The first thing to be concentrated on will be the explaining of importance of nuclear terrorism in the agenda today. Also, the changes in time with globalization and the correlation to the subject of this research paper will be attended to on the following chapter.

The next topic will address the nuclear weapons as the new “dream” achievement of the terrorist groups and how they can actually get their hands on nuclear and radioactive weapons and materials. Deterrence also will be mentioned as it is losing the fight because it is based on a fear that does not compel the adversary.

Later on, Graham Allison's book, *Nuclear Terrorism, the Ultimate Preventable Catastrophe*, will be taken as basis to explain why he thinks that nuclear terrorism is preventable, along with the support of many other scholar and specialists on the matter. Going next through his doctrine of the 3 No's: No loose nukes; No new nascent nukes; and No new nuclear weapon state and explaining what they are and their intentions; and complementing with his "road map of 7 yeses" where he also suggests that beyond the focus on the nuclear materials there is the necessity to take in hand domestic politics and shape into a political and diplomatic weapons that can be used as well.

As they exist and are pretty clear they are not going away any time soon, the challenges faced during the process of securing nuclear weapons and materials among other matters will be also talked about.

The nuclear states will receive a special topic as they are not really mentioned or have its own No's doctrine in Allison's work. Still, they are ones to be sources of concerns as well. They are few too many and too pose a threat as great as, if not greater, than terrorists organizations. The international organizations also have their own section due to their importance in the fight against nuclear terrorism. The work of IAEA, for example, ought to have its merit recognized. Although it has not a lot of autonomy, its efforts earned space in this work and in the world.

For the conclusion, the actual situation and perspectives for the outcome of the fight against nuclear threat and terrorism will be approached. Also some of my own view regarding the other author's suggestions and opinions will make part of the closing stages of this study work.

2. A contemporary enemy in a globalized world

The necessity to find out the responsible, the reasons and the means utilized by the one that promotes the terrorists attempts became much more evident from the moment that this type of violence reached the proportion that we saw on 9/11, of global amplitude, begging for an increase of more effective forms of fight against terrorism. An effort that could also reach global proportions

Concerns regarding international security are always in the world's community agenda. Specially now, when the international community sees in each attack a different type of threat accompanied by a different approach and different weapons every time, the worries have dramatically increased. Technology and tactics change in a very short period of time making nearly impossible to identify and catch the perpetrators, being them directly or indirectly linked to terrorists groups.

There is no doubt that terrorism is a very much present topic. After 9/11 a chain reaction of explicit terrorism attacks took place in the world. But what is that that defines terrorism acts? The definition of terrorism still has not reached a universal acceptance, but the idea of terrorism has. Over a 100 different definitions were formulated, the UN itself could only formulate a very general concept of what terrorism is in order to get the Resolution passed. The Resolution 1566 adopted in 2004, "initially gave a definition of terrorism. Considering that the resolution was adopted under Chapter VII of the Charter, this definition can be regarded as fully working until consensus is reached at the universal level regarding that definition in a classical treaty form"(Zmeyerovsky, 2005, p.82).

The problem in getting to a universal agreement, according to Wardlaw (1989), is that there is a necessity to, at the same time, exist a definition that would be precise enough to collaborate in an analytic study of the object (terrorism itself), and to be general enough for it to be accepted by all involved in the debate. For him, when we begin to search for the more appropriate meaning of terrorism, we have to take into consideration a series of factors that has influence in this dynamic. Within a global society it is practically impossible to reach all groups with one single concept specially if we draw

attention to the fact that terrorism has in itself many declinations that need to be studied and that not all cultures agree with all the given denominations to terrorism's characteristics.

Apart from the fact that the definition on terrorism is still nowadays up for discussion, the actual necessity of combating terrorism is not. After the World Trade Center incident in 2001 all the attention was turned to the terrorism problem, the contemporary terrorism to be more specific. The United States got the global sympathy and support from most of the international community. The episode did, in fact, shocked even the less amicable states towards the U.S.. Eventually that nation recognized that it was partly to be blamed for alleging that if the state had indeed paid more closely attention, it could have stopped the terrorist from acting on their horror plan. (Allison, 2005)

That means that although very difficult, the task of preventing this kind of catastrophe is not altogether impossible. Once the international police work together with the national polices from all the nations, the information gathered can give a pretty good idea of the types of groups there are, how they usually work, where and why. To point a finger at a specific target sometimes is very difficult due to their organizational structure. Most of the terrorist groups are composed by cells in which the individuals from each cell do not have contact to any other cell. They are all linked by this central figure that passes along the particular plan for each cell without them ever knowing how many other cells are involved in the process and also never having contact with each other. It is a complex web of information that needs to be understood in a very short period in order to the law enforcement to be able to act on it.

Although it is a continuation of traditional terrorism, the contemporary terrorism has its own characteristics. With the globalization also came the development of terrorist tactics in the areas of transportation, weapons, and communication. The mass transportation sector, specially the commercial airlines, had evolved a lot. A few decades ago a traveler would need days in order to reach his or her destination on the other side of the country and today is possible to go half way across the globe in a matter of hours. The appearance of commercial aircrafts made easier the life of many by making possible the transportation of a big number of people from one airport to another using a speed without precedent.

For that reason and other facilities transportations such as airplanes, trains and buses draw the attention of terrorist actors that take advantage of the fact that a single target can provide dozens, even hundreds of victims. If in one hand the evolution of technology and consequently, transportation helps in the dislocation of individuals outside and inside a country, on the other hand this also collaborates with the entrance and exit of terrorists and of weapons destined to terrorist purposes.

The weapons also suffered improvement becoming more powerful and able to reach places they could not go before, not even being necessary to increase their size. They are every day getting smaller and easier to smuggle. Leave it alone the fact that this evolution is happening faster than the law enforcement could have a change to stop it.

Still on the matter of weapons, according to Wardlaw, with the advance of technology the society faces new threats that did not existed before. A clear example of that is that now there is a possibility of terrorist groups to have access to nuclear, chemical and biological weapons. The chances of this happening, unfortunately, are not that slim. Take for instance radical groups and religious extremists, they are in most part willing to die for their cause and therefore not really caring about their chances of survival if handling such weapons. Their only concern is getting the “job” done before that could actually happen.

When it comes to reality a fact that needs to be faced is that technology is making possible for terrorist groups what was before only the capacity of states: kill citizens, either in war or internal matters. Terrorist have now numerous types of weapons at their reach, more than the countries do, because differently from a country, a terrorist groups have no problem using human lives and airplanes to execute their acts of terror.

These perpetrators of terror are more than willing to do everything in their power to possess nuclear weapons and materials because they are aware of the damage it can be reached if using such weapons. They are also aware of the fact that there are still many nuclear power facilities out there with a less than good enough security system that they can try to have access to these materials.

3. The ultimate weapon

When asked how real the threat of terrorists exploding a nuclear bomb and devastating a great metropolis, the former U.S. Senator Sam Nunn said he believes the likelihood of a single nuclear bomb exploding in a single city is greater today than at the height of the Cold War. (Allison, Fall 2006).

“As long as the big powers insist on maintaining nuclear weapons, claiming they need them to protect their security, they cannot expect to prevent other countries and terrorist organizations from acquiring such weapons – and some day using them” (Fischer, 2005, p.451). As long as these weapons exist they will be subject of desire of other nations and terrorists groups. Due to its tremendous lethal power of destruction terrorists see in these weapons a great way to create monumental human, economical and psychological damage all at once.

There is two ways that a terrorist could acquire a bomb. They could steal one already made from a current nuclear facility or they could construct one themselves with highly enriched uranium or plutonium, both made by states. “With fissile material acquired from a weapon state, using publicity available documents and items commercially obtainable in any technologically advanced country, terrorists could conceivably construct a gun-type bomb like one dropped in Hiroshima” (Allison, Sep/Oct 2006, p.38). With greatly financial aid from states that also support terrorism and, of course, from illegal actions, such as trafficking of goods and drugs, and even smaller crimes such as stealing, money is not an issue, they can and they will have access to these materials if the let opportunity meet their will. It is obvious that the main goal then is to keep terrorists from putting their hands on any fissile material or nuclear materials and weapons.

In January 2002, the Nuclear Posture Review posited a major change “from a historic emphasis on deterrence and its corresponding reliance on offensive nuclear forces to a strategy that reassures friends and allies, dissuades potential adversaries from threatening U.S. interests, deter adversary use of weapons of mass destruction, and – should deterrence fail – defeats those adversaries decisively” (U.S. Military Options,

2006). This new strategy called triad is composed of missile defenses, nuclear weapons and non-nuclear strike forces and it was created thinking possible states as their enemy, such as Iran and North Korea for example, but not considering terrorist groups as well. It would be naïve, to say the least, that deterrence does work with terrorists organizations. “Those who still believe in fairy tale of deterrence theory better wake up to the age of suicide bombers – anyone convinced they will go straight to paradise if blown up cannot be deterred by the threat of horrendous retaliation” (Fischer, 2005, p.451).

According to Allison, nuclear terrorism is preventable by a feasible and at the same time affordable checklist of action: “No highly enriched uranium or plutonium, no nuclear bombs, no nuclear terrorism”. This is why he suggests the “Doctrine of the 3 No’s and also “draws a road map of seven yeses” to defend that it is necessary to take extra measures to combat nuclear terrorism. By bringing to mind that it is also required many related initiatives to manage this full scale war on nuclear terrorism.

3.1. The doctrine of 3 No’s

In order to bring a stop to nuclear terrorism it is necessary to follow the doctrine of 3 No’s based on denying terrorist access to nuclear weapons or material. “Nuclear terrorism is preventable. Only a fission chain reaction releases the vast blast of energy that is the hallmark of a nuclear bomb. No fissile material, no nuclear explosion, no nuclear terrorism.”(Allison, 2005, p.140)

To prevent the acquisition of highly enriched uranium and weapons-grade plutonium is necessary to make use of a well developed technology to lock up these materials and keep them safe. In fact, the technology already exists but it is expensive and most countries that withhold the materials can not afford the security system, they would need financial help. But even the money is not an issue anymore. As forcedly the U.S. took the leadership in the fight against terrorism, it did the same regarding the lead of the financial support to those countries that needed to secure their materials.

The first of the 3 No's is *no loose nukes*. Parting from the principle that insecure nuclear weapons pose a serious global threat, the first action is to secure all nuclear weapons and do not leave any unguarded material. Also, make sure that terrorist, no matter what, would not be able to acquire the actual weapon or the materials from which the nuclear weapons can be made. These materials should be secured to a new "gold standard" on the fastest timetable possible. Materials that for some reason cannot be secured would need to be removed or destroyed.

The second is *no new nascent nukes*. This mean "no new national capabilities to enrich uranium or reprocess plutonium". (Allison, 2005, p.156) This second doctrine is more delicate to accomplish. According to the framework of the NPT, "non nuclear states can legally develop facilities for enriching uranium to produce fuel for civilian nuclear reactors, and they may reprocess these reactors' spent fuel to extract plutonium". The problem is that the same facilities that can produce LEU or plutonium, for reactor fuel, can be used as well to produce HEU or bomb-usable plutonium. Both which are the dangerous and essential components for creating nuclear weapons.

A solution to this matter would be the use of the carrot and stick politics. The carrots being the supply of reactor fuel to non nuclear weapons states at a very low cost (so low that if a state refuses the offer it would look like it has something to hide) and make it at their disposal also the spent fuel. The stick would be the enforcement of this new structure, using political isolation and economic sanctions if necessary. "The deal is simple: if non nuclear states agree to forgo enrichment or reprocessing capacity, the nuclear states would not only continue to meet the legitimate interests of the non nuclear ones in civilian nuclear power and technologies but would guarantee to sell them nuclear fuel and dispose of their nuclear waste at less than half the national production cost". (Allison, 2005, p.158)

The states that already possess nuclear weapons, according to the NPT, are prohibited to transfer nuclear weapons or associated technology to another state that is not an already nuclear state. It also obligates these states to give technologies for civilian nuclear activities. Better monitoring and inspections would also need to take place among the nuclear states following the new security standards.

Another measure that should be taken, but in the domestic sphere, is the improvement of police work, to strength export control and to make it not legal everything that has to do with nuclear proliferation and create punishment “in a manner that fits the scale of the crime”.

The third doctrine is *no new nuclear weapons states*. If both first and second doctrines are followed through, then there would be no necessity of worries regarding new states emerging with nuclear weapons. Once a new nuclear state appears more drastic measures need to come into action. In the case of North Korea, Allison suggests the necessary steps to reach back to the third doctrine.

First he defends that Korean’s nuclear weapon production line should be prevented by freezing its nuclear weapons activities in its current state. After would be time for dismantling its fissile material production facilities, remove the fissile material and then destroy any eventual nuclear weapon North Korea may presently posses.

Along with the three essential No’s formula that should be applied globally and joined globally as well there should be applied several other proposals that Allison defends regarding the way to defeat the war on terrorism. Not only the major 3 No’s rule should be followed and a more regional focus needs to be approached. Regarding national measures to combat nuclear terrorism, Allison came up with mandatory rules that a government should follow.

3.2. The road map of 7 yeses

Not only from No’s doctrines the success in the fight against nuclear terrorism should or does depend on. There are several, actually seven to be more precise, other related initiatives that are suggested by Allison. It is what he calls the “road map of 7 Yeses”. These are initiatives that should be addressed in the domestic sphere:

- Making the prevention of nuclear terrorism an absolute national priority; he states that the level of priority is judged by what you do and not by what you say. Meaning that a leader should show his or her concerns through actions, implementing actual measures

that will help to address the matter and not just say it will. Allison defends that a bigger budget should be allocated to the fight against nuclear terrorism and that a president should have always someone with the expertise to be able to be in contact with this issue and report back directly to the him or her. Another point he highlights is that priority should be made also for the president himself/herself and all the key officials from his/her staff. Also should be part of the president's agenda to convince the other foreign leaders to adopt and support this priority in his/her own country as well.

- Fighting a strategically focused war on terrorism; Allison shows concern about the diverted attention on the real target. Many other interests at risk may blur the vision on what really mattered since the beginning. "The Global War on Terrorism as it has been so far defined and conducted is strategically unfocused; promises much more than it can deliver; and threatens to dissipate scarce U.S. military and other means over too many ends". (Allison, 2005, p.180) What he suggests to prevent that unfocused approach from happening comes to three key objectives. First, no limitations should be considered regarding military, economic and diplomatic effort in the battle to destroy the enemy. Second, a strongly campaign should be carried out to lock down all weapons and materials as well as eliminate all materials that cannot be secured right away, and also make sure that its citizens are feeling secure and not worried that terrorist can steal the nuclear materials. Third and last, deeper relationships should be nurtured with allies and partners that shared the same concerns towards nuclear terrorism in order to be able to make use of voluntary cooperation not only from other nation-states but also from law enforcement, communities and intelligence agencies all over the world.

- Conducting a humble foreign policy; nobody wants to succumb to a global ruler (in the case of the U.S.). Countries are not comfortable with the idea that a strong country such as the U.S. could take any matter into its own hands and not consider anyone else's opinion while dealing with it. The sympathy can be lost and the cooperation be shaken if the image shown is of an authoritarian regime disguised of democratic.

- Building a global alliance against nuclear terrorism; There is no way any country could take the toll of this fight alone, not even the U.S.. The fact that many more countries share the fear of this threat should come in hand when it comes to alliance. Cooperation is a very important ingredient in the combat against nuclear terrorism and

“the mission of this alliance should be to minimize the risk by taking every action physically, technically and diplomatically possible to prevent nuclear weapons or nuclear materials from being acquired by terrorists”. (Allison, 2005, p.187) To a global problem is required a global response. That could be accomplished by all members embracing the new gold standard for all nuclear materials and weapons in their own territories and accelerate the clean out process of all latent nuclear weapons at research reactors or other facilities where these cannot be secured properly. A non-proliferation regime is highly encouraged always having in mind that the purpose is to stop terrorist from acquiring the necessary material. Sales and export of nuclear technologies need to be shut down and the propagation of know-how should be halted. Another point well taken is the possibility of turning nuclear trafficking into an international crime with real sentences to be filled in jail. As mentioned before, the cooperation of intelligence agencies and law enforcement is very important. The information shared plays an imperative role in finding the perpetrators while the police enforces the new rules. Alliances should come out of the paper. It is no good for it to be symbolic. The members of the alliance should also take into consideration the mistakes made in the past and try to learn from them.

- Creating the intelligence capabilities required for success in the war on nuclear terrorism; high-tech solutions should have its importance but the human factor should not be left aside. Although spy satellites and eavesdropping technologies are extremely helpful in this matter, it should not be too heavily relied on. A more creative human source of intelligence should be approached, “individuals who live in foreign lands, speak local languages and dialects, can penetrate terrorist organizations, and can recruit citizens of other countries and members of groups like Al Qaeda” (Allison, 2005, p.195), for example. A long term relationship with foreign intelligence agencies must be cultivated so cooperation can be more successful. This cooperation must also be understood as cooperation with regional and local law enforcement because in most cases they are the ones to “first recognize the existence of a terrorist cell with nuclear ambitions” (Allison, 2005, p.195). Also with room for improvement are the analyzing, dissemination of open sources and processing areas of intelligence. More use of internet chat rooms, international media broadcasts, financial markets and court proceedings for instance. Finally, credibility plays a major role as well. In possession of verifiable and

correct information the leader of a nation has more credibility when reaching for support from allies and friends.

- Dealing with dirty bombs; the first thing to do is tighten the accounting and control areas of radioactive isotopes that have the most potential to produce mass disruption if dispersed by terrorists. Among them are cesium, cobalt and americium. They can all be found in places serving civilian purposes like cesium, for example, is used in hospitals in cancer treatment. The transportation and security process must be upgraded and reshaped for industries and academic institutions to be able to use them as well. Another critical topic is the ability to identify radioactive materials all around. Airports, harbors, highways and any other probable place targeted by the perpetrators should be equipped with appropriate radioactive material detectors. The concern should not only lie on the prevention but also on the response in case a dirty bomb is detonated. First of all is necessary to inform the population what a dirty bomb is, what damages can cause, the form on how to react under the threat and during the explosion as well as after. Secondly, but not less important, the ability to respond in the event of an attack should be improved. Researches must be done and a way to minimize damages and time to respond should be searched for.

- Constructing a multilayered defense; the approach should be done in levels. First, secure all nuclear weapons and materials at the source. Second, make nearly impossible for terrorists to smuggle the weapons or fissile materials out of the country, transporting to a safe haven and finally preparing it for use. If the formation of nuclear weapon is already confirmed the next step is to avoid it going to the country of its destination. If it is already in, detection is the mandatory option. Improvement in all of the above mentioned areas is needed.

4. Challenges

In Kokoshin's interpretation of *Nuclear Terrorism: The Ultimate Preventable Catastrophe* he states that Allison failed to mention that there is also the possibility of nuclear conflicts between nuclear states as well as with terrorist organizations, "in fact, nuclear terrorism belongs to a wider world political context" (p.140).

He also believes that the role of the nuclear factor in world politics has reappeared with full force after states such as Pakistan and India acquired nuclear weapons. With the appearance of these new nuclear states the chances of the emergence of new nuclear states are great and the threats of nuclear terrorism are more real. Also increased is the probability that the United States could have plans to defend themselves and their interests that include developing and using certain types of nuclear weapons such as "mini-nukes".

4.1. Nuclear states

Wirtz argues that as time passes the nuclear states will have their nuclear material deteriorated. Although the U.S. adopted the Nuclear Stockpile Stewardship Program (SSP) with the intention of extending the live service of their nuclear stockpile they can only work for so long. Still he supports the idea of the nuclear test moratorium, in place since 1992 and reinforced by the Comprehensive Test Ban Treaty (CTBT) in 1996.

This disarmament measure has the intention to halt horizontal spread of nuclear weapons to other parties and vertical proliferation by stopping nuclear force modernization amongst already existing nuclear states. "Over time, however, a testing moratorium will slowly undermine the capability of even the most advanced nuclear state to maintain a nuclear arsenal" (Wirtz, 2006). The most optimistic will agree that the moratorium can eventually lead to disarmament because this measure breaks the chain of know-how that is created when nuclear physics and weapons engineering pass along the information they have to the new generation of engineers and scientists. With the loss of this important information, not only the design and manufacturing procedure

will get lost but also the maintenance of already existing weapons will turn out to be intensively difficult as the pieces of the weapons will become unavailable when the ones that supply them go out of business or even give up the product lines.

A solution applied by the U.S. military to this problem was to maintain a large reserve of nuclear weapons and “U.S. officials intended to guard against unforeseen technical problems in their nuclear forces and to greatly reduce the U.S. weapons design and manufacturing infrastructure” (Wirtz, 2006). However, some materials that were used three decades ago are no longer possible to acquire, compelling the engineers to use new materials and new procedures increasing dramatically the costs.

Still, the ingress of U.S. in the SSP was moved by the will of reducing military costs together with the chance they had to abandon the weapons they no longer needed. The U.S. officials, however, did not take into consideration the long term costs of U.S.’s entrance in the program, that are now, far worst than before. Another fact that they did not foresee was they are the one who have the most complex and demanding machines yet produced and that would make even more difficult the task of extending the life of their arsenal. (Wirtz, 2006)

According to IAEA Illicit Trafficking Database (ITDB), from 252 reported incidents, from January 1993 to December 2006, 150 of them occurred in 2006 (most of the remaining 102 cases took place in 2005). Involving unauthorized possession and related criminal activities alone were 14 out of a total of 150. This category includes illicit trafficking and its elements such as illegal possession, movement, or attempts to illegally trade in the nuclear or radioactive materials. Incidents involving thefts, losses or misrouting of nuclear or other radioactive materials amount to 85 which in 73% of the cases the materials have not been recovered, at least not reported back to IAEA.

That shows that the search for these types of materials is imminent and growing fast. Surprisingly situations like the following still happen, and unfortunately, on a regular basis. Georgia came to report to ITDB, in January 2007, an incident that took place in February 2006, almost with one year of delay. To illustrate how dangerous this behavior is: it involved the seizure of 79.5g of 89% enriched uranium. To keep these kinds of episodes from repeating themselves IAEA organized the International Conference on

Illicit Nuclear Trafficking: Collective Experience and the Way Forward in Edinburgh, United Kingdom of Great Britain and Northern Ireland, from 19-22 of November, 2007.

Its purpose was to review the global experience in fighting illicit trafficking and to take into consideration a potential international strategy to prevent, detect and respond to this incident. The objective was to bring together policy makers and experts in the matter to share knowledge and information about the achieved progress so far and to study the threats and risks implicated in nuclear trafficking to better advise on a way forward to put a stop to illicit trafficking. The precise goals of the conference were: a) to examine the risks and threats of illicit trafficking of radioactive material; b) to better understand current and future patterns and trends in the illicit trafficking of radioactive material; c) to determine progress on efforts to establish detection capabilities at borders and to exchange information on developments in detection technology and response methodologies; d) to strength existing networks and cooperation for sharing information on illicit trafficking; e) to examine how an enhanced export/import regime can assist in combating illicit trafficking; f) to share information on activities intended to implement international obligations, recommendations and guidance relevant to nuclear security; and g) to suggest actions by which the international effort, through the IAEA, would be strengthened.

It is clear by the objectives of that conference that the world is concerned about nuclear terrorism and what is most important they understand that cooperation is the key word in the war against nuclear threats. Also, it is evident that recognition needs to be given to international organizations and to the enormous effort they can provide to the cause just like it is the cause itself. Taking into consideration specially IAEA, the one that took the initiative to organize the above mentioned conference, but other such as INTERPOL and the International Criminal Court also deserves special attention.

Not only the nation states are required to cooperate in the fight against nuclear terrorism, the international organizations also play a very important role in this war. "The United States cannot undertake or sustain the war on nuclear terrorism alone. Nor can the necessary actions simply be commanded, compelled, or coerced. Instead, they require deep and steady international cooperation rooted in the recognition that nations

share an overriding common threat and can only succeed with a common strategy” (Allison, Sep/Oct 2006, p.40).

4.2. International organizations and institutions

International institutions and organizations play a major role in the fight against nuclear terrorism. Let us take for instance the International Atomic Energy Agency (IAEA). The agency promotes conferences, gathers important data, formulates documents and the most important of all functions, supervises and makes inspections on the nuclear facilities around the world.

It is true that IAEA does not have the autonomy and authority it should in order to be able to do its job right. Being an international organization has its benefits and also its disadvantages. It work in its favor the fact that its recognition is acknowledge to a great extent, although there are those who say they do not recognize them even though they are members of the United Nations and consequently this should be implicit.

Its perks, however, are pretty limited when it comes to the disadvantages of being a UN organization. As the same occurs with other UN organizations, the rules and procedures are basically mere suggestions which IAEA gives and can only hope they will be obeyed. No law enforcement power has the agency to reprehend a specific country in case it does not “play by the rules”. Still, reports and recommendations are made to the UN’s Security Council hoping it passes a resolution that could have a better effect.

A very important aspect of IAEA is that its publications serve to provide information to customs, police, other law enforcement bodies and others with related concerns on arrangements for successfully prevent not premeditated movements and illicit trafficking of nuclear weapons and materials.

But as mentioned before, not only the agency but also organizations like Interpol, for instance, have a full size part in the fight against this enemy. According to the publication entitled *Prevention of the inadvertent movement and illicit trafficking of radioactive materials*, jointly sponsored by IAEA, WCO (World Customs

Organization), EUROPOL (European Police) and the INTERPOL (International Criminal Police Organization), where an entire section is dedicated to the role of Customs, police and other law enforcement bodies, “Regulatory and other appropriate law enforcement bodies are advised to co-operate and regularly exchange information as part of strengthening their capabilities for increasing security and preventing a loss of control over radioactive materials. It is recommended that this be done both domestically and internationally, and that advantage is taken of the current co-operative initiatives by the IAEA, the World Customs Organization (WCO), the ITERPOL and the European Commission. These initiatives are aimed at strengthening the infrastructures of Member States and the international agencies, at increasing competence and vigilance, and at avoiding duplication”. The information also gathered by the international police is of great relevance to the success of this battle. With the exchange of information among institutions and states and therefore covering more ground, the chances of finding out the location of a terrorist cell, for example, are better and so is the possibility to catch it.

Another challenge we face is regarding the international law. The mission is to preempt. While in an operational military procedure a response is easier managed, in international it does not quite work as smoothly. In the fight against terrorism, regarding international laws, basically the main challenge is how not to resort to the same methods while in confrontation with it. Also, to stay focused and committed to human values and the law itself is a desired ambition.

“International law governing counterterrorism cooperation is currently developing at an extraordinary rapid pace. At the global level alone a dozen conventions operate, two of which are in stages of revision aimed at adaptation to responding to the present day manifestations of terrorism. Practically all regions now have their own international legal base of counterterrorism established”. (Zmeyerovsky, 2005) The United Nations Security Council has taken upon itself the task of operationally filling certain breaches in international law until formulation of a proper treaty norm. Apart from the Security Council but still engage in the United Nations, the General Assembly adopted the International Convention for the Suppression of Acts of Nuclear Terrorism on April 13, 2005, without a vote. “This is the first antiterrorist convention devised by the international community for preemption, that is before the commitment of terrorist acts

involving nuclear and other radioactive materials. And generally, it is the first universal treaty aimed at preventing acts of mass destruction terrorism". (Zmeyerovsky, 2005) This victory came after almost 8 hard years of negotiation process.

Although the support of conventions and resolutions are of a great deal of importance we still face the problem of how do international legal institutions and norms designed to guarantee the efficacy of antiterrorist commitment will endure through time. Also, regarding punishment for committed crimes that tends to be inevitable in certain circumstances, would these institutions have the necessary autonomy to act upon the guilty one? How inclined are the states to hand over the matter to the international court, specially, when the extradition does not occur? Of course, the respect for the national, domestic law needs to exist. It is a real challenge to pass along the responsibility of judgment to someone else because there is the fear that "real justice" will not be achieved. With the feelings that "if you want done it right, do it yourself" is difficult to convince a grieving state to give up of its right to let an international organization handle the case.

According to Zmeyerovsky, "the possibility to activate the International Criminal Court mechanism, as applied to cases of terrorism in accordance with its statute, may, for all intents and purposes, arise not earlier than 2009". The principal concern related to the direction the norms and conventions that are being shaped is that they should not run away from the mainstream that is of international legal guideline and not to infringe or reject them.

5. Conclusion

The war on nuclear terrorism is a complex and demanding one. It demands not only financial assets but also human. In fact, this war cannot be won based on technology, weapons, carrots and sticks only. In order for the world to win this fight is required to gather more than just money and force, it takes also the work, the strength and the values on man. This is not a combat that is possible to win just by shooting back. “Violence generates violence”, this statement could not be closer to the truth. “Terrorism cannot be ended by killing terrorists. Doing so only enrages their admirers and provokes them to seek revenge. Instead, it is necessary to redress the sources of grievance and the great injustice that drives people to sacrifice their own life in order to seek revenge”. (Fischer, 2005)

We are dealing here with a kind of people that truly believe that what they do is for a greater good. They are taught to act the way they do, to follow a calling. They are brainwashed into believing that they will go straight to paradise if they kill as many people as they can. How to combat this? We have to try harder to find where they are located before they can hit us. This is correct, not easy to do, but very much true. Cooperation around the world, between states, law enforcement, intelligence agencies, non-governmental organizations and international organizations is searched for because it is an understatement that no one can fight this war alone, not even the United States, and they know that.

Exchange of information occurs but not fast enough, commitment needs to be deeper. Awareness needs to reach all levels of a society. It is necessary, not to create panic, but adequately inform everyone of the risks, chances and outcomes there might exist. Appropriate conscience of what is going on can only help and not hurt the cause. “Raising public awareness is an important part of prevention at the national level. The national regulatory authority, customs, police and other law enforcement bodies are encouraged to participate in the development and establishment of an effective public awareness raising programme. The form of this programme needs to be in line with the national regulations and so will vary between States. It may include: information on changes of law, advertising campaigns directed towards target groups such as metal

industries or new items on successful prevention cases”. (IAEA – Prevention, 2002) If the population knows what to be suspicious of, they can work as an extra asset in this war. Who better to see if something is wrong on your neighborhood than the neighborhood itself? Let us not kid ourselves, we need all the help we can get.

Allison believes that “the painful truth is that failure to prevent the spread of nuclear weapons and the use of such weapons by terrorists would result from a failure of will, not means. Having enjoying six decades without the use of nuclear weapons as a result of the strenuous, steady actions of courageous leaders, this generation of leaders must ask what excuse it will give its successors if it bequeaths to them a world of nuclear anarchy”. (Fall, 2006) And I must agree with him. We came a long way without an imminent nuclear threat. His suggestions on the No’s doctrines are very much relevant and should be looked at with more interest by the nations’ leaders worldwide as well as his “road map of seven yeses”. His arguments are valid and therefore with merit of closer attention.

Communication is a key element in this fight as well. Money is not an issue but the capacity of communicating is. The ways that the exchange of ideas are made are ancient, valid, but old. New ways of communication should be opened, more easily and faster access to relevant information should exist. There is no way we can succeed in getting the three No’s right if episodes like the one in Georgia, mentioned in this work, keeps happening.

Another inexpensive and worthwhile investment in human survival would be to educate and train mediators that could assist in the prevention of conflicts from turning into violence. A United Nations Organization for Mediation is what Fischer suggests. More investments in human resource is a perfectly health way to pursue the success of saving human lives. Maybe relies on the root of the problem the answer to our current problem’s solution. What I mean by that is if we pay close attention to what is going on today we can maybe avoid it from turning into a bigger worse nuclear problem in the future.

My hopes are still up. As Fischer once put it “Is it realistic prospect to get rid of nuclear weapons? Certainly it’s more realistic that waiting until they are used, whether

deliberately or by accident. Some have argued that we cannot disinvent nuclear weapons and therefore will have to live with them as long as civilization exists. But nobody has disinvented cannibalism either, we have simply learned to abhor it". (p.453) Honestly, I would be having better a sleep if I knew they did not exist because still today, although not advertised and truth be told, not so often, but it happens, it actually does. Be it deliberately or "by necessity", which concerns me more.

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