

December 2014

The lasting legacy of Nuclear Security Summits

Urgent agreements and close cooperation among states are essential to keep momentum beyond 2016

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Summary

Experts worldwide have alerted about the need for improvements in the present international nuclear security regime, as it falls short to effectively prevent nuclear terrorism and other malicious acts involving nuclear materials and facilities. The proposed improvements imply the harmonization of elements in the current regime with brand-new ones, specially defined to close the identified gaps. The expected outcome would be an enhanced and more reliable system of global governance able to better cope with an increasingly dangerous international context.

For the last four years the Nuclear Security Summits have been a productive field to discuss nuclear security matters, but it is clear that the transition from the current regime to such improved one imply a level of changes which has been far from the core debates. However, after three successive Summits: Washington DC (2010), Seoul (2012) and The Hague (2014) the goals which inspired this political process in terms of threats and responsibilities are more valid than ever.

The likely end of cycle in 2016, with a final Summit in the United States (Chicago), offers a golden opportunity to leave as the legacy for the future of this high level political process the agreements to set up a stable and efficient global system for nuclear security.



First Nuclear Security Summit, Washington, 2010

Introduction

The concept behind Nuclear Security Summits is to reach high level political agreements among Heads of State in order to prevent nuclear terrorism and illicit trafficking. It was launched in 2010 as an initiative of President Obama. At the very beginning the Summit process was focused on securing all nuclear-weapons usable materials in civilian activities in the following four years. With the passage of time the scope progressively expanded to include radioactive sources as well as nuclear facilities.

With 2016 Summit in the horizon (likely the last one) a call for action has gained ground in the international community, in the sense of reaching the necessary agreements between states to set up the basis for an improved global system for nuclear security.

To explore the relevance of improving the current regime and the paths to make it possible, as well as the Summits role on this essential change, it is necessary to find responses to four primary questions:

- Why is it more essential than ever to have in place an efficient global nuclear security system?
- What key properties or functionalities should the system have?
- Measured against these parameters, how much progress has been made in the successive Nuclear Security Summits and what are the priorities and challenges for 2016 and beyond?
- Finally, is it possible, given the current political situation to advance on broadly accepted agreements on the key elements of the system, which can be sealed during the 2016 Summit?

Rationale for improvement

As the current regime falls short of responding to the demands arising from the international context to put forward an improved nuclear security system turns out to be a key priority for the years to come. The world became increasingly risky in nuclear terms. Threats have traditional and also brand-new faces.

There are a growing number of insurgent radical groups and other non-state actors potentially interested in acquiring

nuclear materials, nuclear weapons as well as in all kinds of attacks with Weapons of Mass Destruction. ISIS, Al Qaeda, the al Nusra Front and their potential coalitions are pushing world violence toward unsuspected limits.

Potentially malicious acts by terrorists have today a diversity of plausible expressions which include theft of weapons-usable materials and radioactive sources, conventional or cyber attacks to nuclear facilities, theft of sensitive information and technology, and in the worst of scenarios, theft of a poorly protected nuclear warhead, anywhere in the world.

Illicit networks are also ready to take advantage of security flaws in nuclear facilities as well of states' vulnerabilities in terms of poor protection, lack of effective exports, weak border controls, corruption and impunity.

To accurately dimension the likeliness of such scenarios it is important to take into account that:

Weapons-usable materials, more precisely HEU and separated plutonium still can be found in 25 states around the world, in facilities with different levels of protection. Estimated stockpiles of HEU and of separated plutonium are about 1,500 and 495 metric tons respectively. As a reference, it would take about 55 kg of HEU to make a crude nuclear bomb.

About 85% of such materials are stored in non-civilian facilities, it means, outside international regulations and of the guidance of the IAEA.

Nuclear warheads are currently located in 14 states, the nine nuclear armed states, plus five host states in Europe (Netherlands, Belgium, Germany, Italy and Turkey) under NATO nuclear sharing agreements.

There have been resonant security breaches in the past involving sensitive nuclear sites and personnel, such as the known unauthorized access by an activist group to the HEU storage at the Y12 national security complex in Oak Ridge, Tennessee.

Nuclear facilities that could become potential targets for, either conventional or cyber attacks, are located in about 60 states around the world. They include 437 operating power reactors in 30 countries plus 247 Research Reactors in 56 countries.

In terms of frameworks for prevention the situation is equally complex:

There is a constellation of international legal instruments in place, but the majority of them are non-binding in essence. Such treaties, agreements and initiatives have evident overlaps as well as critical voids or blind areas. Among these instruments, perhaps the most relevant are the Convention on the Physical Protection of Nuclear Materials, CPPNM, its 2005 Amendment (not yet in force due to lack of enough ratifications), the International Convention for the Suppression of Acts of Nuclear Terrorism, ICSANT and the UNSCR 1540. So that there is no full and universal

implementation of such instrument which clearly weakens the entire effort.

Decisions about nuclear security are 100% on states' hands. Nuclear traditions since the earliest times of nuclear development make this an exclusive matter of states' sovereignty, in part because the possibility of major criminal acts and the derived potential damages to other states had never been seriously considered. Today, such mindset has progressively changed, but the IAEA's international nuclear security guidelines still remain just as references. Therefore the absence of universally accepted and implemented common standards and security performance objectives is as real as the culture of "privacy" concerning nuclear security practices and procedures.

Many governments perceive nuclear threats as very distant from their national reality and therefore, prevention is very low in their priorities. Even more worrying, there is a lack of awareness in some of them about the risks that such threats may bring about. For example: many governments take into account the threats but disregard potential impacts for their countries

States without weapons-usable materials but with national weaknesses- many in the world- such as poor border control or high levels of corruption usually have little clue or do not care of their potential negative role in the increase of global risks.

It happens because they usually have also little clue about the global impacts of a potential incident involving either nuclear weapons, or materials or facilities.

It is clear that any reformulation of the current regime has to be focused on closing the several gaps emerging from the above mentioned situation.

Properties of an effective global nuclear security system

It is well known that in terms of security **a system is as secure as its weakest components**. In this sense an enhanced system:

- As previously highlighted, should close the main identified gaps and help eliminate as many weak links as possible.
- Should be comprehensive in terms of actors, and global in nature.
- Should also be comprehensive in terms of addressed threats.
- Should prevent malicious acts involving all kinds of nuclear assets (tangible/ intangible).
- Therefore, it should involve actions over civilian and non-civilian materials, radioactive sources, facilities and information.
- Should seek the minimization and further elimination of weapons-usable materials, HEU and separated plutonium.
- Should seek universal adherence and the implementation of key legal instruments, already in place.

- Should be designed to seek accountability by each state toward the whole international community.
- Should define standards or baselines for states to commit themselves to apply.
- Should be based on transparency and shared good practices while protecting states' critical information.
- However, no legitimate right of states to nuclear peaceful use should be eroded by design.
- Should be affordable and practical for low-resource states, and supported in terms of implementation and compliance through international cooperation and funding.
- Finally, should be dynamic and flexible enough to adapt to the potential future evolution of nuclear threats.

The contribution of Summits

At this point it is essential to analyze the potentiality of **Summits** as an environment where required changes could be discussed and implemented with an adequate level of consensus. In this sense, it is clear that Summits positively contributed to put the issue on the table but there is still much to be done:

In fact, Summits have been useful to bring nuclear security issues to the attention of and debate by governments, industry and the expert community. They also have been successful in getting more countries removing their weapons-usable materials (as an example, seven have done so between 2012/2013). They achieved success in promoting adherence to the binding international instruments: the CPPNM, its Amendment and the ICSANT. They also have sparked voluntary commitments by states, either stand-alone or participating in "joint statements" or "gift baskets."

The intention of expanding the leaders' in terms of threats has been present, as it can be tracked in the successive Communiqués. Finally Summits have been positive to bring the attention to the IAEA's role in nuclear security.

However there is a long road ahead in terms of broadening the scope, of enhancing consensus between current participants and also of including non-participating states.

Priorities and challenges for 2016, and beyond

There is little doubt that the continuity of the effort beyond 2016 will be a relevant part of Sherpa debates before the US Summit. As previously said it is essential that such discussions lead to agreements on the core elements and functionalities of the desired global system.

The work of several organizations from the international expert community which have analyzed the issue in depth for years could be a virtuous basis of debate and should be appreciated as it by participating governments. Most of those

organizations and experts around the world agree on the essential elements required for an effective global system.¹

In addition, there are four challenges for the 2016 Summit which could make a big difference in terms of setting positive paths beyond 2016. They are:

Ways to broaden states' participation

Defining mechanisms to ensure broader representation of states in the upcoming Summit and beyond is a key for success. Today the number of invited states, 53 of a total of 193 in the world seems short to achieve the basic agreements to achieve the improved global system.

Even recognizing the difficulties underlying the participation of several problematic states, the fact is that four states with significant nuclear weapons-usable materials (Iran, North Korea, Belarus and Uzbekistan) have not been seated at the meeting room before, and therefore, they are outside of any kind of commitment within the Summits framework.

Another case for analysis is the related to the Latin American and the Caribbean. It has so far been represented in the successive summits by only four states of 33 (Argentina, Brazil, Chile and Mexico). As a mere speculation it is interesting to notice that one of the key goals of the Summits has been to get the 2005 amendment to CPPNM into force. Nowadays it requires 22 more ratifications which could perfectly come from signatories in the region not reached by the Summits process. By 2016 it is necessary to give a positive solution to the challenge of achieving the largest possible level of representation. It could be done either by directly broadening the participation, which is unlikely to happen or by establishing some kind of delegation mechanisms (by region or by community of interests) on the head of current participants. This is a key issue that clearly should be worked out before 2016.

Inclusion of non-civilian materials and facilities

The second challenge is the creation of a joint strategy to protect and prevent incidents involving, not only civilian but also non-civilian nuclear assets.

This is required to cover the 100% of nuclear threats. This is a very difficult challenge as happens with all that involves the non-civilian side. There is a common misunderstanding which associates non-civilian or military facilities with higher levels of security, but it is not always like that. Thus, focusing on the 15% of the problem is clearly not enough to have nuclear risks under control.

¹ The work of the Nuclear Security Governance Expert Group – NSGEG, the NTI Global Dialogue and the Fissile Materials Working Group – FMWG, has been remarkable as well as the general coincidences about what is required. This Group in particular has recently launched and opened to the endorsement of experts and NGOs a document entitled Five Priorities for the 2016 Summit, which reflects the majority of such points of agreement. Most of them have been already discussed here.

Improvement in the quality of diplomatic negotiation

It implies to expand the acceptance of diversity, avoiding narrow views that may obstruct broader agreements. The case is that states have agreed on joint communiqués as outcomes of each of the Summits. But in the past there have been noticeable difficulties in getting endorsement to excellent voluntary-initiatives, the success of which has depended more on the identity of the states promoting them, than on their inherent quality. This issue has been counterproductive for the practical implementation of the Summit commitments. An improvement in the quality of diplomatic negotiation-and its expression as the Sherpa process -would be essential in preparation for 2016 and mostly taking into account the increasingly conflictive international environment.²

Cooperation with Russia despite its withdrawal

Early in November 2014 Russia announced that it will not participate in the next Summit. The Russian Foreign Ministry stressed its disagreement with the methodology used for the Summit which “eliminated the possibility that the opinions of states that do not agree in everything with the line dictated by organizers” would be taken into account.” Although this withdrawal poses a big challenge, it is evident that cooperation with Russia (and in particular, the US-Russia bilateral one) should go on by all means.³ It is difficult, if not impossible to achieve an enhanced global system without Russian full participation and cooperation. Opening up opportunities for Russia to come back to the Summit process should be a priority during the current year. Such actions will surely require a certain degree of strategic versatility.

Next steps

So the point is whether the foundations for the required enhanced global system will be discussed and agreed during the months to come.

Regarding that, leaders in governments should take advantage of inputs by the expert community in order to feed them into the Sherpa negotiations. It would be desirable that those essential elements could be shaped as a broad agreement in 2016.

Those elements are clear: core principles of an enhanced global system, particularly in relation to the scope (civilian

² As an example, in the 2014 Netherlands Summit, two excellent initiatives were opened to endorsement by participating states. One of them was the joint statement entitled **Strengthening Nuclear Security Implementation** (the so-called Trilateral Initiative which was promoted by the 3 Summit hosting states: USA, Republic of Korea and Netherlands). It defines voluntary commitments for nuclear security implementation, based on IAEA guidelines. On the other hand another group of states opened to signature the joint statement entitled **In Larger Security, a Comprehensive Approach to Nuclear Security**, which promotes the obvious inter-related goals of nuclear security, disarmament and nonproliferation. While the first initiative gathered 35 of 53 signatures, the second gathered 15 of 53, with a modest overlap of only seven signatures. Both proposals are clearly positive and deserved a broader adherence, but, due to deficits in the negotiation process, they were overshadowed by denials due to political alignments.

³ Both states keep the 95% of weapons-usable materials in the world

and non-civilian materials and facilities); balance between sovereignty and international accountability; practical measures to promote an universal ratification of the key international instruments; ways to simplify general reporting and bureaucracy; systematization of peer reviews and voluntary commitments and definition of a relevant leadership scheme and roles to be in place after the last Summit.

A more ambitious goal and therefore more unlikely, would be to advance toward of a binding international instrument of global governance for nuclear security.

Final comments

Although the Summits cycle has not ended yet, many positive elements already emerge from the process: shared knowledge about threats and what should be done to jointly deal with them; increasing international visibility and perceived relevance of the issue and the basis of an enhanced global nuclear security system. It depends on political will, flexibility and cooperation to make such achievements sustainable enough to become a memorable and lasting legacy of Nuclear Security Summits, beyond 2016.

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About the NPSGlobal Foundation

The Nonproliferation for Global Security Foundation is a private and non-profit initiative based in Buenos Aires, working on building bridges toward a more secure world.

Main institutional programs cover communication, education, expansion of knowledge, and assistance to governments, multilateral organizations and civil society. They are developed with the aim to support quality policy and decision-making on disarmament, nonproliferation and international security.

NPSGlobal sees the enhancement of global security as a joint undertaking of governments, organizations and individuals around the world, and promotes knowledge and understanding as the necessary prior steps for wise decision-making.

The Foundation gives support to the Secretariat of the Latin American and Caribbean Leadership Network –LALN.

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