GLOBAL DIALOGUE ON NUCLEAR SECURITY PRIORITIES[1]

NON-PAPER: HIGH-LEVEL POLITICAL ENGAGEMENT TO STRENGTHEN NUCLEAR SECURITY BEYOND 2016[2]

The Nuclear Security Summits have brought high-level attention to the threat of nuclear terrorism and catalyzed actions by the 53 participating states to strengthen their own security and work collectively to strengthen global security. As a result of the Summit process, states have, for example, strengthened their nuclear security laws and regulations; signed and ratified international treaties that require them to secure nuclear materials and criminalize acts of nuclear terrorism; and provided financial or other assistance to states to help them secure their materials. Significantly, as a result of the Summit process, twelve states have eliminated all of their inventories of these dangerous materials since 2009.

In 2016, the United States will host what is assumed to be the final Nuclear Security Summit in this series. However, we know that the job of securing all nuclear materials is far from finished and more work will be needed by states individually and collectively to strengthen the global nuclear security system to ensure that a terrorist can never use a nuclear weapon or cause the dispersal of radioactive material through sabotage or a dirty bomb. Therefore, at the 2016 Summit, leaders must agree on a way to ensure that collective efforts to strengthen the global nuclear security system and reduce the threat of nuclear terrorism do not fade after the Summit process ends. Without mechanisms that are tasked to continue these efforts, the international community risks the work to strengthen nuclear security going unfinished or, worse, backsliding.

This paper recommends a path forward for ensuring a sustained mechanism for maintaining

[1] Through the Global Dialogue on Nuclear Security Priorities, leading government officials, international experts, and nuclear security practitioners engage in a collaborative process to build consensus about the need for a strengthened global nuclear security system, how it would look, and what actions would be needed at the Nuclear Security Summits and beyond. The Global Dialogue discussions are conducted on a not-for-attribution basis; where individuals and governments are free to use the information obtained during the meeting, but that information should not be attributed to a specific individual or government. For more information: http://www.nti.org/about/projects/global-dialogue-nuclear-security-priorities.

[2] To address the need to ensure high-level political attention following the 2016 Summit, including opportunities for making commitments, ensuring security implementation, mutual accountability, and continued progress, NTI convened a working group to identify options for sustainability in a post-Summit world. This paper incorporates the analytic work of the working group. The members of the working group are: John Carlson, Counselor, NTI; Trevor Findlay, Senior Research Fellow, Belfer Center for Science and International Affairs, Harvard Kennedy School; Jonathan Herbach, Research Fellow, Nuclear Security and Arms Control Law Centre for Conflict and Security Law, Utrecht University; and Anita Nilsson, Consultant, A&N Associates.

high-level attention on nuclear security after the 2016 Summit.

- First, it recommends that a **core group of countries**, primarily through its Sherpa network, continue to drive an ambitious agenda through continued meetings. This group could, at a minimum, include the **35 countries that signed the Joint Statement on "Strengthening Nuclear Security Implementation"** at the 2014 Summit (and recently published as IAEA INFCIRC/869), and take the contents of the Joint Statement as a template for driving further progress.

- Second, it recommends that the core group of countries build support around the concept of using the **Convention on the Physical Protection of Nuclear Material (CPPNM) review conferences** as a vehicle to sustain high-level attention, using the legal basis and structure of the CPPNM as a framework for progress.

- Finally, it recommends that the **International Atomic Energy Agency** (IAEA) be strengthened so that it can play a central role through its Nuclear Security Series, IAEA services, and the IAEA Nuclear Security Conference.

What Is Needed in a Sustainability Mechanism?

Before developing recommendations for mechanisms to continue high-level attention after the 2016 Summit, it is important to ask what is needed in a sustainability mechanism going forward. This includes: (1) the **characteristics necessary** in a sustainability mechanism to ensure continued high-level attention on nuclear security beyond 2016; (2) the **substantive areas that will require attention** after the Summit process ends (both ongoing work, emerging areas where enhanced attention is needed, and discussions of the need for a global system).

<u>Characteristics Needed in a Sustainability Mechanism(s)</u>

A sustainability mechanism is needed to ensure continued implementation in a broad range of ongoing areas and to ensure that certain emerging issues and core areas remain on the agenda. To maintain and even enhance the success of the Summits, a sustainability mechanism must reflect certain characteristics and principles, the objectives of which include the following:

- *promote setting of priorities* that catalyze actions in cooperation with other states and within governments;
- *keep nuclear security on international and national agendas*;
- *hold governments accountable* for security commitments already made;

- provide *opportunities for confidence-building through sharing of information* about security efforts and implementation of commitments;
- *empower senior officials* to coordinate within and across governments;
- provide *motivation or incentives for national implementation* of commitments at all levels of government, from policy levels to facility levels;
- *build public awareness* of the threat presented by poor nuclear security, which in turn may lead to public pressure at the domestic level for greater action.

To achieve these objectives, the following characteristics and principles must be reflected in a sustainability mechanism:

- **High-Level Political Engagement**: Following the Summits, there will be a continued need for a forum or mechanism that allows for leader-level political engagement where heads of government can interact and make commitments. Engagement at the leader level motivates actions elsewhere in the government and is a necessary component of engagement going forward. High-level meetings can be supplemented by more frequent meetings of ministers or officials, particularly if future leader-level meetings are on a less frequent schedule than the current Summits, to ensure continuity of efforts and identify when the time is ripe for leader-level meetings.

- **Regularized Process**: High-level political engagement must occur often enough to ensure regular opportunities for accountability and continuity of commitments. Leader-level meetings might be held on an ad hoc basis but within an agreed timeframe (e.g., no less than every three years) supplemented by more regular meetings at lower levels (e.g., ministers or Sherpas) to ensure sustained efforts. Noting that there may be a limited appetite for leader-level meetings on a frequent basis, it will be important to consider how high-level political engagement can be maintained in the absence of regular face-to-face leader meetings, for instance through written or verbal (via audio or video) reports from the leader to be introduced into the minister or Sherpa-level meetings.

- **Inclusive but Balanced Political Engagement**: It is important for current Summit commitments and nuclear security efforts to be expanded beyond the 53 Summit countries. The greatest legitimacy comes with universality. However, although inclusivity is important and the eventual goal might be universality, a balance must be struck to ensure that the agenda remains ambitious and is not hamstrung by political hurdles that lead to a lowest common denominator dynamic. To maintain this balance, the recommended approach is for a core group of states to drive the agenda and set priorities (similar to the Summits) but

to be open to other states that are willing to join based on some set of conditions (e.g., agreeing to a set of principles).

- **Opportunities for Multi-Sector Engagement**: One of the most unique attributes of the Summit process has been the ability for a variety of stakeholders to engage in parallel with governments through the NGO/civil society and industry summits. Going forward, it is important that there continue to be opportunities for multi-sector engagement on matters that do not require sharing of sensitive information.

- **Flexibility**: A sustainability mechanism should provide flexibility for states to address a broad set of nuclear security-related issues unencumbered by a too restrictive scope if states so desire (i.e., the scope cannot be limited to a narrow area of nuclear security).

- **Coordination and Assistance**: The Summits have been useful in matching assistance and funding to needs. While other mechanisms do this on an ad hoc basis, a sustainability mechanism that continues to provide opportunities to coordinate assistance and funding and identify assistance needs will be valuable.

Substantive Areas Requiring Continued Attention

The Summit process has served as a forum to address a wide range of substantive areas related to nuclear and radiological security, from strengthening legal frameworks and best practices, developing forensics capabilities, enhancing border control and law enforcement capabilities, etc. Work in these areas has been ongoing for several years, and these **ongoing areas of work** will likely continue after the Summits end.[3] However, the Summits brought increased focus and a level of urgency to these areas, leading to concrete commitments by heads of government to take actions to strengthen security. The Summits also catalyzed implementation of security commitments both at the national and global levels and a sense of accountability, and have provided opportunities to match assistance needs with countries willing to provide assistance, both financial and technical. As such, efforts to address these ongoing areas of work have occurred at a faster pace because of the Summits. For these areas, the primary concern is ensuring continued implementation, and the danger of failing to sustain high-level attention is not that these areas will go unaddressed, but that a sense of urgency will be lost and implementation efforts will slow. (Appendix A contains a list of these areas.)

[3] This work has taken place prior to the first Nuclear Security Summit in 2010, supported by the International Atomic Energy Agency (IAEA), the Global Partnership Against the Spread of Materials and Mass Destruction (Global Partnership), the Global Initiative to Combat Nuclear Terrorism (GICNT), and other mechanisms.

In addition to areas of ongoing work that will continue even without a sustainability mechanism, the Summits also provided opportunities to address several **emerging issues and core areas** that required (and will continue to require) enhanced attention and the development of new ideas to address them. These include the security of military materials, the need to build confidence in effective security, plutonium management, and accelerating the ratification of treaties and minimization of highly enriched uranium (HEU). For these areas, the primary concern is preventing efforts from stalling or being left completely unaddressed, a danger that is the result of several factors: no other forum exists to address the area (e.g., the security of military materials); the area has only just been touched by the Summit and requires more creative and analytic thinking (e.g., plutonium management); or the Summit played a unique and extremely successful role in accelerating progress in an area (e.g., treaty ratification and HEU minimization). (Appendix A contains a list of these emerging issues and core areas.)

Finally, if the Summits end without an agreed-upon mechanism for continuing high-level attention, opportunities could be lost to continue the dialogue and priority setting needed to build and strengthen a global nuclear security system made up of international standards and best practices and accountability and transparency measures. At the 2014 Summit, significant progress was made reaching agreement on the value of working toward such a system, but the work is not yet done and requires collective, systematic engagement among countries.

Sustainability through Existing Mechanisms for Addressing Nuclear Security[4]

There are five existing mechanisms that have the most potential to play a central role in sustaining efforts to strengthen nuclear security following the 2016 Summit due their flexibility of mandate and scope, and opportunities to convene high-level meetings: the **IAEA**; the Convention on the Physical Protection of Nuclear Material (**CPPNM**); the **United Nations**; the Global Initiative to Combat Nuclear Terrorism (**GICNT**); and the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (**Global Partnership**).

In addition to these five, **the signatories to the Joint Statement on "Strengthening Nuclear Security Implementation"** (NSS 2014 gift basket, now published as IAEA INFCIRC/869) can potentially form the basis of a core group of countries willing to drive the nuclear security agenda following the 2016 Summit and guide a transition to a more structured sustainability

[4] The list of characteristics needed in a sustainability mechanism and substantive areas in the previous section was the basis for a more detailed set of questions used to analyze existing international mechanisms to develop a comprehensive picture of each mechanism's current and potential capabilities. This analysis was used to identify mechanisms with the most potential to serve as a sustainability mechanism. The questions are listed in Appendix B.

mechanism.[5] These mechanisms and the key characteristics of each are included in the chart below. The mechanisms this paper recommends as sustainability mechanisms for ensuring continued high-level attention are indicated with an asterisk.

EXISTING MECHANISMS FOR ADDRESSING NUCLEAR SECURITY: PROS AND CONS	
IAEA* - Broad scope for nuclear security; technical expertise/credibility; inclusive; convening power; legal basis through CPPNM - Universality may constrict ambition; nuclear security competes for attention with safeguards/safety; limited to civilian materials	**GICNT** - Narrow topical focus; technical meetings; limited membership - Can continue progress in specialized areas like nuclear forensics
CPPNM Review Conferences* - Treaty-based process; nuclear materials security focus; scope of review conferences is broad; inclusive; reporting mechanism - Review conferences limited to not less than every 5 years; requires majority to call conference	**Global Partnership** - Limited membership; political difficulties - Can continue to facilitate assistance/funding
United Nations - Inclusive; convening power; central role in peace/security (incl. nuclear); broad mandate - Not specialized like IAEA; scope too broad/unfocused	**35 Parties to "Joint Statement"*** - Inclusive through INFCIRC/869; nuclear security focus is broad/flexible; tied to IAEA documents; core group can drive ambition - No convening mechanism, but countries could decide to convene

[5] Not described here, but requiring a brief mention, is the recommendation by the Nuclear Security Governance Expert Group (NSGEG) of a Nuclear Security Convention that would provide a framework for continued security improvement. The convention would make the Nuclear Security Fundamentals in IAEA Nuclear Security Series No. 20 binding on parties and require parties to meet regularly to discuss nuclear security implementation, report on progress, and make further agreements in the form of Protocols. The convention, as written, requires only 22 parties for it to enter into force. NTI considers this effort to have merit in the long-term, but believes current efforts need to be focused on a path forward using existing arrangements.

International Atomic Energy Agency

The International Atomic Energy Agency (IAEA) is one potential forum for sustaining high-level attention on nuclear security. It has played a central role in strengthening nuclear security and must continue to do so in the future. The IAEA's member states have now broadly accepted that the IAEA has a role in nuclear security and it therefore has a high level of credibility in the international community. Several factors are important to assess whether the IAEA is the most appropriate sustainability mechanism.

First, the IAEA's scope provides opportunities to focus on nuclear security and to address many areas within nuclear security, and in a potentially integrated fashion with other related areas, including safeguards, nonproliferation, and safety. One exception is the security of military materials. The IAEA's mandate has been interpreted as restricting its nuclear security activities to materials in civilian programs, not military materials (one of the substantive areas requiring a "home" after the Summits end). As such, states have so far been unwilling to permit military materials to be on the agenda of the IAEA's governing bodies or of its nuclear security conferences. While the IAEA could in theory provide states with assistance in securing their military materials, no state has yet asked, although there has been consideration given to applying safeguards to nuclear material declared excess to military needs (in effect this is deemed to be civilian material).[6] States may also voluntarily apply IAEA nuclear security guidance to military materials. For instance, in the U.S. national progress report for the 2014 Summit, the United States stated that it "takes IAEA INFCIRC 225/Rev. 5 into account in military security provisions." Generally, however, although countries with military materials would certainly be free to discuss the security of military materials amongst themselves on the margins of IAEA meetings, there is some uncertainty around how willing some countries would be to discuss military materials in the context of the IAEA.

Second, the IAEA Secretariat has technical and policy expertise in the area of nuclear security and provides a broad array of services to its member states through its recently upgraded Nuclear Security Division. The IAEA also establishes guidance for nuclear security that is widely regarded as setting benchmarks for all states to follow and which could be further strengthened over time. Given this expertise, the IAEA has high credibility as a multilateral forum allowing all states to engage on nuclear security issues. As such, the IAEA is naturally suited to continuing to have a central role in nuclear security efforts going forward and no learning curve would be required. However, while there has been a steady increase in funding for nuclear security work

[6] Article II of the IAEA Statute states that the IAEA must ensure that assistance provided by it is not used in any way as to further any military purpose, which in theory could be argued as covering any potential IAEA assistance to countries to secure their military materials.

by the IAEA, both in the regular budget and the Nuclear Security Fund, the IAEA has so far not been provided with the financial or human resources necessary to greatly expand its role in nuclear security. Member states need to commit additional resources to ensure the IAEA can expand its role.

Third, the IAEA is almost universal, which means it is highly inclusive and can work to strengthen nuclear security in all states, not just a core group. However, as noted above, there is a need to balance inclusivity with ambition and the IAEA has been constrained in some areas due to the need for consensus among a large group of states. Certainly, the Summits have not been immune to political roadblocks, but the level of ambition has been notably higher than previous efforts because of its limited participation and, in particular, due to the use of gift baskets that allow states to be forward-leaning in particular areas.

Fourth, the IAEA has convening power and regular opportunities for engagement with all its member states through its annual General Conference and Board of Governors. Both of these bodies, however, have much broader concerns than nuclear security, which is a relative newcomer to the IAEA's agenda. The IAEA does have an Advisory Group on Nuclear Security (AdSec) to advise it on such matters, as well as convening ad hoc groups to periodically revise its nuclear security guidelines and other documentation. The IAEA has also begun to convene regular Nuclear Security Conferences, through which experts and officials can engage. At the last conference, held in 2013, the IAEA for the first time held a one-day Ministerial meeting as part of the conference. While only a small number of ministers attended, it was a breakthrough for the IAEA in its attempts to attract high-level political attention to the issue. In theory, such conferences could replace or replicate some elements of the Nuclear Security Summits, at least in the near-term. However, while the IAEA does have convening power, it has not yet shown that it is able to replicate the ability of countries to convene summits at the level of head of government, nor would a universal meeting of heads of government likely yield the same ambitious results.

Finally, because the IAEA is the depositary for the Convention on the Physical Protection of Nuclear Material (CPPNM), there is a legal basis for it to play a role in the context of convening CPPNM review conferences. Thus, even if a sustainability mechanism does not necessarily reside within the current IAEA structure, the IAEA could have a central role in sustaining nuclear security going forward within the context of the CPPNM.

Convention on the Physical Protection of Nuclear Material

The review conference mechanism of the Convention on the Physical Protection of Nuclear Material (CPPNM) (and its 2005 Amendment) provides another good option for sustaining high-level attention because it provides a formal mechanism built around treaty obligations which provide a legal basis for discussion of nuclear security matters. Article 16 states that "at intervals of not less than five years [after the initial conference of the parties] the majority of States Parties may obtain, by submitting a proposal to this effect to the depositary, the convening of further conferences [of States Parties]" to review the implementation of the CPPNM and its adequacy. CPPNM review conferences called under Article 16 have strong potential for several reasons.

First, Article 16 does not specify at what level meetings should be held. As such, there is flexibility for review conferences to be held at the leader level or minister level, depending on what is most appropriate. Article 14 of the CPPNM says that meetings can be called at intervals of not less than five years. If held at the leader level, the infrequency of review conferences could reduce meeting fatigue. Intersessional meetings or other planning meetings would almost certainly be required to continue momentum at the official level (e.g., Sherpas) or minister level at whatever frequency is desired. The level and frequency of both review conferences and intersessional/planning meetings will be up to the countries, but the important point is that the CPPNM provides the opportunity and the flexibility to determine the level and frequency of meetings.

Second, the CPPNM and 2005 Amendment are specifically focused on the security of nuclear materials and nuclear sabotage and thus provide an appropriate basis for continued engagement on nuclear security issues. However, the scope of the operative text of the convention is limited. The original CPPNM is limited to the security of materials in international transport. The 2005 Amendment expands that scope to materials in domestic use, storage, and transport, and protection of nuclear facilities against sabotage, but it is not yet in force. In addition, the CPPNM applies only to materials in peaceful use, i.e., not military materials. However, Article 16 makes clear that conferences can review the preamble of the CPPNM as well as the operative text and the preamble is significantly broader than the operative text.[7] The preamble to the CPPNM notes both the importance of physical protection of nuclear

[7] Article 16(1): "A conference of States Parties shall be convened by the depositary five years after the entry into force of this Convention to review the implementation of the Convention and its adequacy as concerns the preamble, the whole of the operative part and the annexes in the light of the then prevailing situation." Article 16(2): "At intervals of not less than five years thereafter, the majority of States Parties may obtain, by submitting a proposal to this effect to the depositary, the convening of further conferences with the same objective."

material in domestic use, storage and transport (i.e., broader than just international transport) and the "importance of effective physical protection of nuclear material used for military purposes, and understanding that such material is and will continue to be accorded stringent physical protection." Essentially, because the preamble covers a broader scope than the operative text, there are opportunities to discuss the security of all nuclear materials in the context of a CPPNM review conference, even if the legal obligations arising from the CPPNM in its current form are themselves limited. In fact, review conferences could be forum to discuss perhaps eventually amending the CPPNM to further broaden its scope, as was done with the 2005 Amendment.

Third, the CPPNM and its Amendment contain built-in reporting mechanisms that are currently underutilized but could be used to enhance information sharing and confidence building. Article 14 requires countries to "inform the depositary [the IAEA] of its laws and regulations which give effect to the Convention." To our knowledge, very few reports have actually been submitted to the IAEA, but this could be strengthened and become an integral part of regular CPPNM review conferences.

Finally, the CPPNM, while not universal, currently has 152 parties, providing a high level of inclusivity. However, the fact that 152 countries are party to the original CPPNM, while only 84 countries are currently party to the 2005 Amendment, which is not yet in force (entry into force of the Amendment requires two thirds of the CPPNM parties, currently 102), means that there will be two groups of parties attending the review conference, those to the CPPNM only, and those to the Amendment. Article 16 appears in both versions, so the likely operation of the convening mechanism is that a review conference would be called by a majority of parties to the CPPNM (currently 77 parties), though a review conference is required five years after entry into force of the Amendment. To ensure proper order, it would be necessary to establish rules of procedure to enable the review conference to consider matters arising under the original CPPNM and matters under the Amendment, and the decision-making authority of the two groups of parties. It is likely that a PrepCom would be required ahead of a review conference to settle the rules of procedure.

There are precedents for holding review conferences of parties to a treaty that has been amended or had a protocol added and where not all parties to the original treaty are parties to the amendment or protocol. The Meeting of the Parties to the Kyoto Protocol (the MOP) is held immediately after the Conference of the Parties to the Framework Convention on Climate Change (COP) to which the Kyoto Protocol is essentially an addition but with only a select number of parties. This results in a joint COP/MOP. Parties to the Convention that are not parties to the Protocol participate as observers in the portion of the conference dealing with

the Protocol. Similarly, the CPPNM review conference could be called by a majority of parties to the original CPPNM, but those which are party to the 2005 Amendment could have sessions that focus on the 2005 Amendment, with any other countries wishing to participate in those discussions invited to do so (for instance, the United States, even though it has not ratified the 2005 Amendment, would likely wish to participate in discussions on the Amendment's implementation). The rules of procedure might allow participation by all but with any decision (voting) on Amendment matters limited to Amendment parties.

United Nations

The United Nations is in theory an attractive candidate to provide a forum for continued high-level political engagement for a variety of reasons.

First, one clear benefit is that the UN has universal membership. However, this has the same pros and cons of universality discussed in the context of the IAEA. Second, the UN has the ability to convene high-level meetings of leaders (for instance the annual meeting of the General Assembly and ability to call "special meetings" or "periodic meetings" under Article 28 of the UN Charter that are in the form of summits).

Finally, the UN has already played a central role in addressing threats to peace and security and has addressed the threat of terrorism generally and in the context of nuclear security in a variety of manners. Specifically, in the context of nuclear security, UN Security Council Resolution 1540 (UNSCR 1540) requires all UN member states to provide "appropriate effective controls" over nuclear material, as well as appropriate and effective border and trans-shipment controls and export controls, establishes a Committee of the Security Council (1540 Committee) to report to the Security Council on implementation of UNSCR 1540, and requires countries to report to the 1540 Committee the steps they have taken to implement the resolution. The 1540 Committee collects reports, collates information into matrices, and maintains a legislative data base.[8] The UN is also the depositary for the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT). Because of the UN's broad scope and the explicit reference to military materials in UNSCR 1540, there is also a strong argument that this could be a venue to address the security of military materials.

[8] Note that the Security Council's UNSCR 1540 Committee is not itself an option to serve as a sustainability mechanism. It is confined to Security Council members and has limited expert and technical support. As a subsidiary body of the Security Council it does not have the ability to convene high-level meetings although it could recommend to the Security Council that it do so. Therefore, the 1540 Committee's focus should continue to be on implementation of UNSCR 1540 and maintaining its database.

However, although the UN's extremely broad mandate means meetings under its auspices could theoretically cover any topic, including nuclear security, its broad scope could also mean it would be difficult to maintain an adequate focus on nuclear security. Given that the IAEA, the only other potentially universal body that can address nuclear security, is a more specialized organization with technical and policy expertise directly applicable to nuclear security, expanding the UN's role to focus more narrowly on nuclear security could detract from efforts to strengthen the IAEA's role in this area and could result in unnecessary duplication of efforts.

Because the IAEA has many of the same attributes as the UN but is able to provide more narrow focus on nuclear security, coupled with specific expertise in nuclear security, the UN is not the most suitable means of sustaining high-level political attention to strengthen nuclear security. Without a strong argument for the UN to take on a role that is more naturally housed within the IAEA, the UN should continue to address security threats broadly and use its convening power and ability to pass resolutions which stress the vital need to secure nuclear materials, including legally binding resolutions in the case of the UN Security Council, but should not be the primary sustainability mechanism going forward.

Global Initiative to Combat Nuclear Terrorism

The Global Initiative to Combat Nuclear Terrorism (GICNT) is an organization of 85 partner countries supporting a set of principles to strengthen global capacity to prevent, detect, and respond to nuclear terrorism through multilateral activities such as workshops, tabletop exercises, and field exercises. In reality, the GICNT has focused on a narrow set of project areas (nuclear detection, nuclear forensics, and response mitigation) and meetings are at the technical level. Moreover, membership, though quite large, is much smaller than the UN, the IAEA, or the CPPNM. Therefore, the GICNT is unlikely to become a central mechanism to sustain high-level attention on nuclear security, although it can continue to have value as an organization that focuses on niche areas and provides technical assistance.

Global Partnership Against the Spread of Weapons and Materials of Mass Destruction

The Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (Global Partnership) was formed to secure and dismantle stockpiles of weapons of mass destruction, particularly in Russia and the Former Soviet Union, though its scope has gradually expanded somewhat. The Global Partnership operates through assistance projects based on a pool of funding that is pledged in ten-year increments. Although the Global Partnership has contributed to global nuclear security efforts, it has limited membership and is experiencing

some political difficulties. Moreover, leader-level meetings are tied to the G8/G7 summits, which cover a broad array of topics and perhaps do not allow for sufficient focus on nuclear security. Although the Global Partnership is unlikely to become a central mechanism for sustaining high-level attention on nuclear security, if it can continue to fund activities that result in reduced threats from weapons of mass destruction, it will be able to contribute to global nuclear security.

Signatories of the Joint Statement on "Strengthening Nuclear Security Implementation"

The five mechanisms above are existing mechanisms that currently address nuclear security in a variety of ways and that also have potential to convene meetings. However, it will take time following the 2016 Summit to develop a more structured and permanent mechanism for sustaining high-level attention on nuclear security. What is needed in the interim is a set of countries willing to keep nuclear security high on the agenda and lead a transition to a more permanent solution. A group of countries stepped forward at the 2014 Summit in The Hague and these countries could take the lead in driving further ambition after the 2016 Summit.

At the 2014 Nuclear Security Summit in The Hague, 35 countries signed the Joint Statement on "Strengthening Nuclear Security Implementation," through which they committed to implementing IAEA nuclear security guidance and engaging in actions to continuously improve their national nuclear security regimes. By signing this initiative, countries agreed to go beyond their existing international legal obligations, demonstrating a forward-leaning attitude toward strengthening global nuclear security.

Since the 2014 Summit, these 35 countries have met several times through their representatives in Vienna to discuss ways to broaden participation in the Joint Statement and, in October 2014, requested that the Joint Statement be circulated by the IAEA Secretariat as an IAEA Information Circular. It became INFIRC/869 and is now open for all IAEA member states to join by submitting a *note verbale* expressing their intention to subscribe to the initiative and requesting that it be distributed to other member states as an INFCIRC.

There are two key benefits to the Joint Statement becoming an INFCIRC. First, the Joint Statement now has a life beyond the Summit process and is inclusive—any country willing to make the commitments can join. This provides an excellent balance between inclusivity and ambition because countries can only exclude themselves. In addition, there is now a group of willing countries who are dedicated to enhancing the status of IAEA guidelines and the value of peer review in the long-term, not just during the life of the Summits. This community of

countries provides a natural driving force for continued engagement on nuclear security after the Summits end and could decide to continue to hold meetings at the Sherpa level to continue discussions from the Summit. Such meetings would by nature be ad hoc as the Joint Statement itself has no built in meeting or convening mechanism.

The Joint Statement also provides a useful substantive framework to drive ambition, including toward the use of the CPPNM review conferences as a more structured mechanism. It is built on the foundation of the IAEA Fundamental Principles and IAEA Recommendations that are central to nuclear security efforts and therefore provides opportunities for discussing ways to strengthen the IAEA and fully implement IAEA guidance. In this way, the Joint Statement's contents are also complementary to the obligations contained in the CPPNM and 2005 Amendment, the latter of which explicitly references the IAEA Fundamental Principles. There is therefore a natural link between the two instruments which would ensure that discussions of the commitments in the Joint Statement would be consistent with eventual discussions of implementation of the CPPNM. Finally, the scope of the Joint Statement is extremely flexible and therefore could be a vehicle to discuss a wide variety of nuclear security topics. Notably, it does not explicitly exclude the topic of military materials.

Other Mechanisms

There are many other existing mechanisms that address nuclear security in various ways but are not well-suited as mechanisms for high-level, regular political engagement on a broad range of nuclear security topics. Each of these mechanisms plays an extremely valuable role but may have a limited scope that cannot accommodate broader discussions on nuclear security or may even exclude certain topics, or may lack a mechanism for convening high-level meetings. A list of these mechanisms and their roles in the global nuclear security system is included in Appendix C.

Worth mentioning is the possible role of INFCIRC/549 to address plutonium management, one of the substantive areas identified above as having the potential to go unaddressed after the Summits end. Although INFCIRC/549 participants have met in the past to discuss reporting, shared updated plutonium management policies, and update the guidelines, its participants could choose to strengthen it into a forum to have a more robust discussion of plutonium management issues. This concept is addressed in a separate paper.

Recommendations

Given the above analysis, the working group recommends that high-level attention on nuclear security be sustained in the near-term as follows:

- A coalition of willing countries, particularly the **35 countries that signed the Joint Statement on "Strengthening Nuclear Security Implementation"** (or committed to INFCIRC/869), can drive ambition and catalyze continued high-level engagement on nuclear security in the near-term. This group can also support a transition to a more permanent, structured sustainability mechanism within the CPPNM.

- In the medium to long-term, sustained high-level political attention on nuclear security can be moved under the umbrella of the **CPPNM**, particularly using its review conference process as a vehicle for long-term sustainment.

- The organizational and structural assets of the **IAEA**, including its continued development of nuclear security guidelines and the nuclear security services it provides to states, must continue to play a major role and should be strengthened. The IAEA Nuclear Security Conference should also be leveraged in the near-term. The IAEA's role as depositary for the CPPNM also means it will have an enhanced role going forward.

This section provides a recommended approach using these three mechanisms.

<u>Catalyzing Action in the Near Term through a Sherpa Network and Signatories to the Joint Statement</u>

The primary hurdle to attaining any vision for future high-level attention on nuclear security that incorporates a more permanent, structured approach is gaining the necessary support from enough countries to move toward this approach. Therefore, until support for the concept of CPPNM review conferences (or other more permanent arrangement) is established, it is vital that a core group of interested countries continue to drive ambition and eventually persuade others that a more formal, structured mechanism will be beneficial to all parties. A key initial objective of the core group could therefore be to plan for a CPPNM review conference and gain the necessary vote to call one.

This paper recommends that the core group of countries be made up of a subset of the 53 Summit countries plus any non-Summit countries that wish to participate. A natural starting

point is the 35 Summit countries that signed the Joint Statement, given that their participation in that initiative demonstrated their desire to continue strengthening nuclear security, going beyond existing legal obligations, and do so in a cooperative way. Non-Summit countries that have committed to the principles in the Joint Statement by supporting IAEA INFCIRC/869 could also be invited to participate in such a core group of countries.

Going forward, the core group of countries could be represented by Sherpas who would transition from their current role as Sherpas to the Nuclear Security Summit to Sherpas for continued nuclear security engagement. Building upon the existing network of Sherpas ensures that the productive relationships that have been established over the past six years can be fully leveraged in a post-Summit world. Sherpas meetings would provide opportunities to check in on commitments made during the Summits, including commitments made in gift baskets, discuss the agenda they would like to move forward, and formulate a plan or strategy for developing a more formal, structured approach using the CPPNM review conferences. Such a strategy would require persuading a majority of states party to the CPPNM to call a meeting. Until such time as the CPPNM review conference mechanism is agreed upon, heads of government could meet when appropriate on an ad hoc basis when called by the core group of countries, continuing where the Summit left off but without the expectation that meetings would occur at predetermined intervals.

Although Sherpas would need to agree on what their functions should be going forward and a timeline for meetings, in order to preserve the network and ensure it remains intact given frequent turnover within governments, it is extremely important that Sherpas not allow too much time to lapse between the 2016 Summit and their next meeting. It is proposed that Sherpas whose countries wish to participate in this driving effort agree to a path forward for continued engagement at the 2016 Summit and that their first post-Summit meeting could coincide with the 2016 IAEA Nuclear Security Conference. Going forward, to reduce the potential of meeting fatigue, Sherpas and/or leaders could meet on the margins of other meetings, such as the UN General Assembly, the NPT Review Conference, the IAEA General Conference, or IAEA nuclear security conferences.

This paper recommends that the 35 countries (plus additional countries signing the Joint Statement in 2016) could put forward a new “sustainability” gift basket whereby countries commit to creating and sustaining a high-level mechanism for nuclear security, which would include regular Sherpas meetings, CPPNM review conferences, and strengthening the IAEA.

CPPNM Review Conferences as a Long-Term Vehicle for Sustainability

This report recommends that CPPNM Article 16 review conferences have the greatest potential as a long-term, structured sustainability mechanism that provides opportunities for countries to make high-level commitments, report on implementation using CPPNM Article 14 reports or other national reports, to provide accountability and build confidence, and to ensure continued progress. Several hurdles must be overcome before this becomes a reality.

First, Article 16 provides for review conferences at intervals of not less than five years. As such, intersessional meetings or preparatory conferences would need to occur with some regularity between review conferences, perhaps on an annual basis or every six months, to ensure continuity of commitments and maintain the relationships between officials/Sherpas. There is precedent for this type of arrangement through the Biological Weapons Convention, which holds review conferences every five years supplemented by intersessional meetings of experts and diplomats. Note that while it is important that leaders and/or ministers meet regularly, these meetings would not have to be at predetermined intervals as is the case with the current Summit structure. Rather Summit-level meetings could be called on an ad hoc basis when the Sherpas agree that there is justification for leaders to attend in person. If leaders do not attend the review conferences, high-level attention can still be sustained with the expectation that political commitments that have been blessed at the highest levels of government should be a regular component of the meetings and that leader statements are provided in written or video format prior to or at the meetings. One precedent is the Summit of the Americas, organized through the Organization of American States, which began as ad hoc summits but are now institutionalized on a three to four year basis. These are convened to address specific topics. Another precedent is the Organization for Security and Cooperation in Europe (OSCE), which has annual ministerial meetings and occasional leader summits.

Second, because a majority of parties to the CPPNM (currently 77) are needed to call a review conference for each and every meeting, even if a first review conference were held after 2016 (or upon entry into force of the 2005 Amendment), there is no guarantee that future meetings would be called, though parties at the review conference could call for the next meeting at that time. Thus, as noted above, it will be necessary for a smaller group of countries that are party to the CPPNM to drive progress in the near-term and garner support for the CPPNM as a more permanent arrangement. Eventually, if there is interest and motivation to do so, the preferable course would be to amend the CPPNM to require regular review conferences (not just at the request of states) and to reduce the minimum period between review conferences from five years to say three years. However, to avoid confusion it would seem sensible not to pursue this further amendment until the 2005 Amendment has entered into force, though discussions

could begin earlier to build support for the proposal.

The International Atomic Energy Agency's Central Role

As noted above, the IAEA will continue to play a central role in global nuclear security efforts. In addition to its existing efforts, as depositary for the CPPNM with a clear legal mandate to play a role in implementing the CPPNM and convening review conferences, the IAEA would play the role of secretariat to facilitate and support CPPNM review conferences, thus expanding and strengthening its current role. Countries will be able to consider creative ways to fully leverage the expertise and assets of the IAEA to support these meetings, which the IAEA could also use as an opportunity to promote and further develop its Nuclear Security Series documents and other services, such as IPPAS missions.

The triennial IAEA Nuclear Security Conference could provide an anchor or meeting opportunity for Sherpas, ministers, or leaders to continue the work of the Summits until such time as CPPNM review conferences are established. The IAEA Nuclear Security Conferences should continue to play a major role in developing the IAEA three-year nuclear security plans, providing additional opportunities for expert and civil society engagement, tasking the IAEA, and tackling specific issues in greater depth, such as the computer security conference being held in June 2015.

Conclusion

This paper's recommendations leverage existing mechanisms with the greatest potential to serve as sustainability mechanisms for high-level attention after the 2016 Summit—the IAEA and the CPPNM. Acknowledging the challenges of achieving this vision, the recommendations identify near-term steps to ensure continuity between the 2016 Summit and such time a CPPNM review conference is called, particularly by leveraging the existing Sherpa network and the 35 countries that have signed the Joint Statement. How to implement these recommendations must be agreed upon between the countries that wish to take this forward. As with all international initiatives with ambitious goals, success will require real leadership and commitment, both from countries and from within the organizations that play a central role—in this case, the IAEA. A core group of like-minded countries will naturally take a leadership role and will need to catalyze action to make the vision a reality.

APPENDIX A: SUBSTANTIVE AREAS THAT REQUIRE CONTINUED ATTENTION

Areas of Ongoing Work

Below is a list of ongoing areas of work that have received attention prior to and within the Summits. Of the list below, several in bold can be considered emerging issues or core areas that risk going unaddressed after the Summits end, and are described in more detail in the next section.

Comprehensiveness of Scope:

- Strengthening security of all nuclear/radiological materials, including **military materials**.

International Standards and Best Practices:

- **Signature and ratification of the CPPNM/Amendment** and ICSANT leading eventually to universalization;
- Fully implementing UNSCR 1540 and its reporting obligations;
- Strengthening national legal and regulatory frameworks for nuclear security; strengthening and achieving universal **adoption and implementation of IAEA guidance**;
- Developing and promulgating best practices to ensure continuous improvement; promote strong security culture;
- Strengthening MPC&A, transport security, emergency response capabilities, nuclear forensics capabilities, and efforts to combat illicit trafficking and smuggling;
- Further developing technical solutions for improving security, such as security-by-design, waste management, and combating cyber-nuclear threats.

Confidence-Building Measures:

- **Developing the concept of confidence-building**, including through existing mechanisms (UNSCR 1540 and CPPNM Article 14.1 reporting; IAEA peer review, etc.) and voluntary, unilateral confidence-building measures;
- Promoting the regularizing and strengthening of peer review mechanisms (e.g., IPPAS/INSServ, etc.);
- Developing the idea of certification processes that show demonstrable competence.

Minimization/Elimination of Materials:

- **Minimizing and eliminating HEU** (reactor conversions, downblending, repatriation,

technology to transition to LEU fuel, etc.).
- Developing international agreement on **plutonium management** approaches.

Emerging Issues and Core Areas

- **The security of military materials** (i.e., the 87% of global stocks of weapons-usable nuclear materials outside civilian programs), though referenced in the previous Summit Communiqués, has largely been absent from international efforts to strengthen nuclear security. Despite international recognition of the importance of securing military materials, existing international nuclear security mechanisms do not provide specific security standards or confidence-building arrangements for military materials. As such, sustained efforts to continue to strengthen nuclear security must also address the security of military materials, as well as civilian materials.

- The Summits have catalyzed significant progress on **ratification of treaties** and have promoted **IAEA guidelines** as the standard for nuclear security. A mechanism will be needed to continue the momentum necessary to, for example, achieve entry into force of the CPPNM Amendment and universal adherence to and implementation of IAEA guidelines.

- The concept of **confidence building** is still new in the nuclear security field, although it has been a vital component of multilateral arms control and disarmament activities. Confidence building was most recently embodied in the 2014 Summit Communiqué, which recognized the value of taking actions to reassure others about the effectiveness of security. This message still needs to be promoted and a mechanism that will ensure broader acceptance in the international community is necessary.

- The Summit process has catalyzed significant progress on **HEU minimization and elimination**. Without the Summits, progress would have been made, but perhaps at a slower rate and without the Summit's forcing function. While these activities will continue after the Summit, the urgency of following through on commitments to minimize or eliminate civilian HEU may disappear, potentially slowing down or stalling efforts.

- **Plutonium management** has not received the attention that HEU minimization has, even at the Summits, and far more progress is needed to minimize the proliferation and security risks associated with stocks of separated plutonium. High-level political engagement and opportunities for further commitments and accountability are needed to catalyze progress in this area.

APPENDIX B: CHARACTERISTICS AND FUNCTIONS OF NUCLEAR SECURITY MECHANISMS

CHARACTERISTICS	
Membership	• What kinds of membership does the mechanism have (e.g., states/intergovernmental; government authorities/agencies; or industry)?
	• What is the current membership of the mechanism (i.e., the number of states/members)? • Is the membership limited (exclusive) or can any country/organization join (inclusive)? • Are there conditions for membership?
Scope[9]	• What is the mechanism's scope of activity? (e.g., security, nonproliferation, safety, disarmament)
	• Is the scope fixed by the mechanism's organizational documents or statutes or is it flexible?
	• Does the scope of the mechanism's work currently include military materials? • Could the mechanism potentially cover military materials under its current mandate (even if not working in this area now)? • Could the mechanism cover military materials with an altered mandate or at the request of states?
	• Does the scope of the mechanism's work allow for discussions of the following issues: ratification/universalization/ strengthening of CPPNM Amendment/ICSANT; universal implementation of IAEA guidelines; cyber-nuclear threats; discussion about value of confidence-building; HEU minimization; and plutonium management?

[9] Scope of activity addresses whether mechanisms have the scope to address the subject matter areas that require a home after the Summit process ends.

Political Engagement[10]	• What is the mechanism's convening power based on organizational documents or statutes (inherent convening power)? • Does the mechanism have additional convening power due to provisions in a treaty or convention (external convening power)?
	• What types of meetings does the mechanism currently host? At what level (e.g., leaders, ministers, officials, technical)? • What types of meetings could the mechanism potentially host other than those currently hosted? At what level (e.g., leaders, ministers, officials, technical)? • Are these meetings (existing or potential) regular or ad hoc?
	• Does the mechanism provide for a review mechanism or conference? • If so, are these regular or ad hoc? • If not, could the mechanism potentially have a review mechanism or conference if agreed upon by the parties/members? • What is the explicit purpose of the review conference? Is it limited or flexible? • What level of participation is specified (e.g., leaders, ministers, officials, technical)? • If not specified, what level of participation would be possible (e.g., leaders, ministers, officials, technical)?
Nature of State Obligations	• Does the mechanism allow for obligations that are legally binding, politically binding, or voluntary?

[10] Political Engagement addresses the need for high-level political attention, a forum for commitments, institutionalization/regularization, setting priorities and catalyzing action, accountability on a regular basis, and other characteristics that are needed in a sustainment mechanism.

FUNCTIONS	
Monitoring, Compliance, & Enforcement	• Does the mechanism currently have binding obligations in place? • If so, what is the scope of the obligations (e.g., nuclear security) and who is obligated by them? • Does the mechanism have the authority to develop and/or adopt binding obligations?
	• Is there a body (e.g., depositary or secretariat) for receiving or collecting information, for instance through reporting, to monitor implementation of obligations or commitments? • Is the information analyzed by the mechanism (either the same body/process or another)?
	• Is there an enforcement mechanism or process? • Does the enforcement mechanism or process provide for consequences or penalties for non-compliance? What are they?
Confidence-building & Information Sharing	• Is there a reporting mechanism? • Is reporting made public? • If not, can it be made public by state consent?
	• What types of confidence-building mechanisms, other than reporting, does the mechanism provide opportunities for, e.g.,: ➢ peer review ➢ best practice exchange ➢ certification ➢ declarations/statements of commitments ➢ information sharing
Assistance & Coordination	• Does the mechanism provide legislative assistance?
	• Does the mechanism provide opportunities for training through courses, workshops, etc?
	• Does the mechanism provide financial/in-kind assistance to countries? • Does the mechanism provide a forum for coordinating assistance and/or

	soliciting funds?
	• Does the mechanism provide a forum for cooperation or coordination across multiple stakeholders (civil society/industry)?
Standards & Best Practices	• Does the mechanism provide a forum for best practice development and exchange?
	• Does the mechanism develop and produce security standards and guidelines (whether binding or nonbinding)?
	• Does the mechanism currently incorporate security standards and guidelines (e.g., IAEA guidance) into binding obligations through bilateral or multilateral arrangements? • Could the mechanism do so even if it is currently not doing so?

APPENDIX C: OTHER MECHANISMS

- Centers of Excellence: Provide regional/national training and educational opportunities on a variety of nuclear security and safety topics. These centers will play a vital role, particularly in regional efforts to strengthen security and build confidence. Due to their ad hoc nature and limited memberships they will not form the basis of a central sustainability mechanism. Rather, they should be strengthened and more heavily leveraged to fill gaps in the global system.

- Code of Conduct on the Safety and Security of Radioactive Sources: The Code of Conduct on the Safety and Security of Radioactive Sources is not legally binding, but instead provides guidance on preventing unauthorized access or damage to, and lose, theft or unauthorized transfer of, radioactive sources, as well as on mitigating or minimizing the radiological consequences of accidents or malicious acts involving a radioactive source. A formalized process for a "periodic exchange of information and lessons learned and for the evaluation of progress made by States towards implementing the provisions" of the Code of Conduct was established in 2006. These meetings take place on a triennial basis, but are limited to a discussion among legal and technical experts.

- Conference on Disarmament: The Conference on Disarmament is a limited membership multilateral forum the purpose of which is to negotiate treaties. Given that a new nuclear security treaty is unlikely to be added to its much-contested and already crowded agenda, the CD is not a strong potential forum for further action on nuclear security. The CD's efforts to commence negotiations on a Fissile Material Cut-Off Treaty are relevant to nuclear security to the extent that such a treaty would ban further production of fissile material for military purposes, but will do nothing to address security for existing stockpiles either for civilian or military purposes.

- INTERPOL: INTERPOL is the world's largest international police organization, with 190 member states. INTERPOL provides training, investigative support, and facilitates international police cooperation. Its mandate includes cooperation on illicit trafficking of nuclear and radioactive material. Given its limited scope, it is not a potential forum for high-level political engagement on nuclear security generally.

- International Convention for the Suppression of Acts of Nuclear Terrorism: This convention requires states to criminalize and prosecute offenses related to the use or possession of radioactive material and use or damage of a nuclear facility, or threats to do so. ICSANT also

establishes a legal framework for cooperation among states to detect, prevent, suppress, and investigate offenses, and to institute criminal proceedings against alleged offenders by sharing information and assisting one another in connection with criminal investigations and extradition proceedings. This convention has limited application to physical protection, instead focusing on criminalization, and it does not have a built-in process for review and development of the convention that would provide opportunities for high-level engagement.

- Joint Convention on Spent Fuel and Waste Management: The Joint Convention contains legally binding obligations on states party for the management of spent fuel and waste. Given its narrow scope, the convention does not provide a good potential forum for high-level political engagement on nuclear security generally.

- Nuclear Non-Proliferation Treaty and Safeguards Agreements: The NPT and safeguards regime are designed to detect the diversion of nuclear materials from peaceful uses to use in nuclear weapons or devices. While nuclear security can be a topic of discussion at NPT Preparatory Conferences and Review Conferences, the focus on nonproliferation and disarmament means that nuclear security would likely not be able to receive sufficient attention. Introduction of another contentious issue to its agenda might also have deleterious effects on the NPT review process itself.

- Nuclear Suppliers Group: The NSG provides a uniform approach to nuclear and nuclear-related exports and dual-use exports. NSG members pursue the aims of the NSG through voluntary adherence to NSG Guidelines. While nuclear security can be a topic of discussion within this group, with physical protection being one of the fundamental principles for nuclear transfers, the focus of the NSG should continue to be on the important topic of export controls. In addition, the NSG membership is limited and therefore not the best situated to provide a forum to expand engagement on nuclear security.

- Plutonium Management Guidelines (INFCIRC/549): The objective of INFCIRC/549 is to increase transparency of the management of separated plutonium in civilian programs through each participating state subscribing to a common set of guidelines and publishing annual statements of its holdings. In addition to a narrow scope, INFCIRC/549 currently does not have a robust convening function and only 9 countries have committed to the guidelines. Although INFCIRC/549 will not be a central forum for high-level political engagement on nuclear security writ large, the states that have committed to INFCIRC/549 should consider strengthening the use of INFCIRC/549 as a forum to discuss a set of

principles for separated plutonium management and to persuade other countries with separated plutonium to join INFCIRC/549.

- Proliferation Security Initiative: This loose consortium of states works to prevent illicit trafficking of weapons of mass destruction, their means of delivery, and WMD-related materials. While the PSI does convene regular meetings, the scope is narrowly defined, and membership is limited. In addition, its controversial nature is not conducive to productive engagement on nuclear security with a large group of countries.

- UN Security Council Resolution 1373: UNSCR 1373 requires states to take action to prevent terrorist attacks, including by suppressing the financing of terrorists. It is not specific to nuclear terrorism and does not deal with physical protection of nuclear materials. Its implementation is handled by a UN Security Council Committee whose membership is limited to Security Council members.

- World Institute for Nuclear Security: WINS focuses on developing and promulgating best practices through best practice guides and workshops and has recently launched the WINS Academy to provide online certification of security professionals. As a non-governmental organization it has neither the mandate nor capacity to contribute to sustained high-level political attention to nuclear security, although it can play a useful role at the margins.

More information on these and other instruments is included in a separate “Nuclear Security Primer.”