

Outcomes and Suggestions of the Nuclear Security Summit

Jae San Kim^{a*}, Myung Tak Jung^a

^aNuclear Security and Cyber Security Division, Korea Institute of Nuclear Nonproliferation and Control

*Corresponding author: jaesan@kinac.re.kr

1. Introduction

The Nuclear Security Summit process has brought highest attention to the importance of nuclear security and reached the consent that the global community have to go together to address the threat of nuclear terrorism.

The third Nuclear Security Summit (NSS) was held in Hague, Netherlands, March 24~25, 2014. NSS has been a national leader level event for discussing the nuclear security since 2010. Through this summit, the measurement for the nuclear security has become more strengthening and participating countries could recognize the importance of nuclear security than before. From the NSS sessions, the leaders of participating countries and international organizations (IAEA, UN, EU and INTERPOL) had an in-depth discussion about the seriousness of the nuclear terrorism, the urgency issues for strengthening the nuclear security, etc. What issues was discussed in NSS processes since 2010 and which facts become more important than ever for nuclear security?

The purpose of this paper is to provide the substantive outcomes from the 1st to 3rd NSS and suggestions for consolidating the next NSS.

2. Backgrounds of Nuclear Security Summit

The definition of nuclear security is the prevention and detection of, and response to, theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving nuclear or other radioactive substances or their associated facilities. (IAEA Advisory Group on Nuclear Security)

Unlike the previous, the terrorism has occurred anywhere in world, and the influence of terrorism reached multilateral effects among countries. Also, the threat of nuclear terrorism has taken place increasingly all around the world. These are the real examples of trial for nuclear terrorism.

- 1) June 2007, Adnan was arrested for planning to make the nuclear terrorism in U.S.
- 2) November 2007, South African nuclear research institute, Pelindaba was attacked for HEU by two armed teams.
- 3) November 2010, Illicit trafficking attempt of HEU (89.4%, 18g) was caught in Georgia.
- 4) December 2013, radioactive source; Cobalt-60 was stolen in Mexico.

After 911 attacks, U.S. government and relevant countries have got high attentions for securing nuclear

terrorism. Then they knew that nuclear terrorism was the real threat and it was not only one country's imminent issue. So, many countries made efforts to strengthen the nuclear security through the various initiatives like GICNT (Global Initiative to Combat Nuclear Terrorism), GP (Global Partnership), etc.

And in the early phase of Obama administration, security issue was a matter of grave concern for defending all kinds of threat in their territory. Then, the first NSS was proposed by President Obama. In April 2009 speech in Prague, he called international efforts to secure all vulnerable nuclear material around the world within four years. The efforts for nuclear security are not the short term tasks but it needs the ongoing, long-term challenge that will require international/domestic collaborations to confront evolving threats and prevent nuclear terrorism. [1]

3. Accomplishments of Nuclear Security Summit

NSS is the national leader level meeting on nuclear security. Through these NSS from the 1st to 3rd meeting, various progress was made for strengthening the nuclear security.

3.1 2010 Washington Nuclear Security Summit

In April 2010, the leaders of 47 nations and 3 international organizations (IAEA, UN and EU) gathered in Washington, D.C. for the first nuclear security summit. This summit underscored that nuclear terrorism is among the top global security challenges and that strong nuclear material security measures are the most effective way to prevent it. [2]

Through this summit, Washington Communiqué and Work Plan (political declaration) were accepted from the participating countries' leaders. And national commitments were announced by around 30 countries. (Ratification of CPPNM / ICSANT, joining GICNT, establishing Center of Excellence for training, HEU return or elimination, and contributing more to the IAEA Nuclear Security Fund, etc)

3.2 2012 Seoul Nuclear Security Summit

53 nation's leaders and 4 international organizations (IAEA, UN, EU and INTERPOL) attended Seoul NSS in March 2012. In the Seoul Nuclear Security Summit, they reviewed and checked the progress took follow-up measures since the Washington Summit and assured the principles and objects of the Washington Summit.

Like the Washington NSS, Seoul Communiqué was drawn by the national readers for implementing the nuclear security measures, practically.

Through the Seoul NSS, many achievements was performed and presented by the participating countries.

- Strengthening the Global Nuclear Security Architecture
- Emphasizing the central role of IAEA
- Strengthening the Management of Radiological Materials to Prevent Radiological Terrorism
- Preventing the Illicit Trafficking of Nuclear Materials
- Fostering a Nuclear Security Culture
- Converting Research Reactors and Medical Isotope production Facilities from using HEU fuel to LEU fuel, etc.

Unlike to the previous NSS, national leaders discussed the new subjects such as protection of radiological sources, strengthening measures against nuclear smuggling, need for improved information and cyber security, etc. in Seoul NSS.

From Seoul NSS, ROK presented the six commitments for consolidating our nuclear security system. 1) Ratification of the amended CPPNM and the ICSANT, 2) Receive IAEA IPPAS mission, 3) Groundbreaking of the Center for Excellence (International Nuclear Security Academy), 4) Contribute \$ 1 million to the IAEA Nuclear Security Fund, 5) ROK-US-France-Belgium joint project on high density LEU, 6) ROK-Vietnam-IAEA project on GPS-based real-time tracking system for radiological materials

3.3 2014 Hague Nuclear Security Summit

In March 2014, the third NSS held in Hague, Netherland. In third summit, the Hague Communiqué was adopted by participating countries' leaders. And they especially emphasized on the fundamental responsibility of States, voluntary measures, the primary responsibility of nuclear industry, information and cyber security to further enhance the nuclear security compared to the previous summits.

During the summit in 2014, there were many national commitments, progress reports, gift basket for likeminded countries to strengthen the measures.

ROK presented the progress activities since the 2nd summit and provided the new commitments for future.

The commitments are like these. 1) Ratification of the amended CPPNM and the ICSANT, 2) Plans to lead a Security Council open debate on resolution 1540 when it presides over the Security Council, 3) Leading the international efforts for prohibiting the cyber terrorism of nuclear facilities, 4) Contributing the expand and development of gift basket, especially joint statement on strengthening nuclear security implementation, promoting full and universal implementation of UNSCR 1540.

4. Suggestions of Nuclear Security Summit

From previous summit from 1st to 3rd, the outcomes of similar formalities were drawn like communiqué, gift basket, national progress report, national commitments and statements. Through these summits, each countries that participated the NSS were shown the substantial outcomes for secure the national nuclear security. After that, there were no objective processes what and how the current real situation for each country's nuclear security is. So far, we could estimate the each country's nuclear security activities in a roundabout ways like national progress report, national commitments and statements. The presented gift basket and other commitments were also the similar substance.

These activities received much attention in the first. But, as time passed, these agreed measures were getting less attention. Without the tangible effects, NSS will be a high level talk party, and it will become more fatigable. [1]

As the first step, it is needed the detail processes for understanding the each nuclear security level. So we can see what the strong and weak point of each nuclear security level is. It is difficult to make an advanced activity, because the fundamental responsibility of nuclear security is just each individual country.

It is recommended to make formal concrete questionnaires for national nuclear security progress including the national legislation, competent authority, regulation implementation, nuclear security regime, cyber security, etc. Also, it is effective to make a format questionnaire referring the IAEA IPPAS (International Physical Protection Advisory Service) mission review areas or NTI (Nuclear Threat Initiative) nuclear security index factors.[3][4]

Then, the chairman country provides that format to participating country before next summit and gets the information voluntarily. From this approach, we can get some more detail and objective information of current nuclear security.

5. Conclusions

The summit process has helped strengthen the nuclear security measures. In the following two years before 4th NSS, there will be various follow-up activities for making an effort to implementing national commitments, joint statement, continuous outreach with IAEA/UN and agreed measures in Hague. It should produce the substantial measures for enhancing the nuclear security that are aimed to the each country. And preemptively, it is necessary to understand the each nuclear security level by using the concrete questionnaire sheets substitute for the national progress report.

Finally, it is desirable to get more substantial outputs for enhancing the nuclear security in 4th NSS.

REFERENCES

- [1] Jae San Kim, Accomplishments and Future Suggestions of 2012 Seoul Nuclear Security Summit, KNS meeting, October 25-26, 2012
- [2] Michelle Cann, Kelsey Davenport and Margaret Balza, the Nuclear Security Summit: Assessment of National Commitments, Arms Control Association, March 20, 2012
- [3] International Physical Protection Advisory Service (IPPAS) Guidelines, IAEA, November, 2012
- [4] NTI Nuclear Materials Security Index, Second Edition, January, 2014
- Outcome of NSS 2014: a major step towards a safer world, March 25
- [5] Washington Communiqué and Work Plan, April 13, 2010
- [6] 2010 Seoul Nuclear Security Summit: Key Facts, 2010
- [7] Seoul Communiqué, March 27, 2012
- [8] 2012 Seoul Nuclear Security Summit: Key Facts, 2012
- [9] Outcome of NSS 2014: a major step towards a safer world, March 25, 2014