

Strengthening of Nuclear Nonproliferation regime in Asia-Pacific area through APSN

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1. Introduction

In 1953, “Atom for Peace” speech which was addressed by Mr. Dwight D. Eisenhower, President of the United States of America at the 470th Plenary Meeting of the United Nations General Assembly triggered for establishment of International Atomic Energy Agency (IAEA). The International Community have tried to strengthen nuclear nonproliferation regime led by IAEA. Not only the organizations which have legal binding force such as EURATOM and Argentine-Brazilian Nuclear Material Control Agency (ABACC), but also the international association such as the European Safeguards Research and Development Association (ESARDA) and Institute of Nuclear Materials Management (INMM) are also striving to strengthen the nuclear nonproliferation regime. In the Asia-Pacific region, the voices with respect to the necessity for enhancing nuclear safeguards regime had been raised, which resulted in creating a forum for safeguards professionals to exchange and share their implementing experience.

2. The establishment of the APSN

In 2006, Australian Safeguards and Non-Proliferation Office (ASNO), affiliated with the Australian Ministry of Foreign Affairs, requested for organizing regional consultative group which called Asia-Pacific Safeguards Association (APSA) to Energy Working Group of Asia-Pacific Economic Cooperation (APEC). In February 2007, ASNO requested Korea's involvement by proposing an organizing APSA to local countries. In April 2009, the Statement of Principles (SOP) was drawn up at the 2nd APSA preparatory meeting. In October 2009, Asia-Pacific Safeguards Network was finally founded for improving the quality, effectiveness and efficiency of safeguards implementation and promoting regional cooperation in Asia-Pacific region. Under the SOP, a Chair is elected on the recommendation of the participating members and appointment by the members by consensus, and his/her term of office is two years. In principle, members will endeavor to rotate the Chair on the basis of the states from which member organization are drawn.

2.1 Member States

The eligible member states which were officially mentioned in the annex to the SOP on the time of its founding in January 2009 were 14 countries including Korea, Australia, Canada, Indonesia and Japan. These countries could join the APSN by notification without any further permission. Other eligible countries could sign up as members by consensus of members and written notice to the Chair of their willingness to adhere to the SOP. At the time of the first annual meeting in 2010, the members were 11 countries including Australia, Canada, Indonesia, Japan, South Korea, New Zealand, the Philippines, Singapore, Thailand, the United States, and Vietnam. In 2018, the official member states are 16 countries including Australia, Bangladesh, Cambodia, Canada, Indonesia, Japan, Korea, Malaysia, Mongolia, Myanmar, New Zealand, the Philippines, Singapore, Thailand, the United States, and Vietnam. IAEA, European Commission (EC), Brunei, and Lao P.D.R. are participating in the APSN as an observer.

2.2 Major progress

The first monumental annual meeting was held in Indonesia in June 2010. At this meeting, Myanmar was approved as member states and the EC was granted observer status. As a key decision, Mr. John Carlson, Director General of ASNO was elected as the Chair and agreed to hold annual meetings and the organization of three working groups in the fields of safeguards infrastructure implementation and awareness, information and capacity building, and IT support.

In March 2011, the ad hoc meeting was held in Singapore for sharing energy policies of each states in the wake of the Fukushima nuclear accident, and member states discussed the establishment of the COE in Korea and China. The organization of working groups was determined. Each working groups have covered on safeguards infrastructure implementation and awareness (WG1), capacity building (WG2), IT support, communication, and information (WG3). Additionally, an unofficial working group on nuclear security was organized. The steering committee which was composed of four countries such as Korea, Australia, Indonesia, and Japan was organized for being responsible for the overall coordination of the APSN annual meeting. Due to Fukushima nuclear accident, it has also decided to hold 2nd annual meeting

in Korea instead of Japan. There was also a review of India's membership in the APSN, which is still pending.

During the second annual meeting, which took place in Korea in July 2011, additional working group was organized for covering model safeguards and security legislation (WG4). Korea Institute of Nuclear Nonproliferation and Control (KINAC) was chosen as Facilitator for the unofficial Nuclear Security Working Group. It was agreed that the respective functional group activity groups and their activities shall be reported at the next annual meeting. Indonesia proposed to organize additional working group for import and export control. However, the composition of working groups failed due to a conflict among member states.

The third annual meeting was held in Thailand in October 2012, there was a positive discussion on Mongolia's membership. Most importantly, working group on nuclear security was proposed to be official due to the increasing importance of international nuclear security.

The 4th annual meeting was held in Indonesia in November 2013, WG5 on nuclear security was approved as official working group. Although the Korean side stressed the synergy effect which was resulted from nuclear security in support of nuclear safeguards, it was agreed that the formation of an official working group would be limited to the field of physical protection as a result of different view among the countries regarding the inclusion of radioactive materials. Member states discussed development of safeguards implementation practices guide regarding establishment of infrastructure related state system of accounting and control of nuclear materials (SSAC). For facilitating legislation procedure on nuclear safeguards for newcomer countries, WG4 proposed the draft of safeguards implementation kit for developing illustrative model legislation.

Myanmar, Bangladesh and New Zealand were approved as new members at the fifth annual meeting which was held in Myanmar in September 2014. In addition, a coordinated applicable nuclear material accounting and control (NMAC) system and detailed action plans for nuclear security and safeguards was discussed in working group 5. IAEA experts shared experience on implementation of additional protocol (AP) for Small Quantities Protocols (SQP) countries.

At the 6th annual meeting held in Japan in October 2015, the models for the legislation for safeguards were introduced as a working group 4 initiative, and the final opinions of the member countries were collected. Member states discussed how to efficiently participate in training courses provided by CoE of ROK and Japan in WG2, and possible cooperation among ROK, China,

and Japan. ROK shared information regarding Nuclear Material Accounting and Control (NMAC) system of ROK and experience on an introduction of unannounced inspection (UI) according to State Level safeguards Approach (SLA).

At the 7th annual meeting held in Japan in October 2016, IAEA experts introduced IAEA's new safeguards implementation practices (SIP) guide on the provision of information. Canada expert introduced Inspector Training and Qualification Program (ITQP). WG4 shared experience on process of completion of Safeguards Legislation Kit (SLK) which cover Comprehensive Safeguards Agreement (CSA), AP, and SQP. During the Plenary, member states formally appointed ROK as the 2017-2018 Chair and secretariat of the office. The Director General of Radiation Protection and Emergency Preparedness Bureau, Nuclear Safety and Security Commission, Korea was appointed to the Chair of APSN. Korea agreed to hold the 8th annual meeting in Korea.

The 8th annual meeting was held in Korea in October 2017. Cambodia was approved as a new member. Finland and ESARDA shared their education and training program. IAEA expert introduced 2018 IAEA International Symposium on Nuclear Safeguards which will touch on how to use new technologies for safeguards implementation, and apply to conventional and next generation nuclear facilities. For strengthening international nuclear nonproliferation regime, member states discussed how to support IAEA Symposium and encourage member states to participate in the Symposium. Also there was discussion regarding the possibility of holding the next annual meeting in conjunction with the IAEA Symposium on International Safeguards to be held in 2018. This is an opportunity to demonstrate leadership of Korea to the world and contribute to the international community as an official sponsor of the IAEA Symposium by encouraging the participation of experts in Asia-Pacific region to IAEA symposiums. The working group 5 proposed to expand its scope including reporting additional protocols.

3. The significance of the APSN in Korea

As a founding member of the APSN, Korea actively contributed to this regional forum by hosting the second annual meeting in Jeju in 2011, and hosted the 8th annual meeting successfully as the Chair country from 2017 to 2018. In addition, a number of safeguards experts gathered not only to discuss implementation of safeguards by SQP countries but also to communicate local safeguards issues, such as the promotion of educational and training cooperation between International Nuclear Nonproliferation and Security

Academy (INSA) and ESARDA. As the U.S.-led discussions on operation of the CoE in Asia region are expected to continue in the future, it is necessary for INSA to participate in the APSN meeting with continued interest. The KINAC which conducted the tasks of the entire coordination from the planning stage of the 8th annual meeting to the end encouraged members to attend the annual meeting, and supported the timely administrative support of the member states.

4. Expectation of Future APSN

Through the APSN, Korea will share best practices based on its experiences of regulatory implementation with Asia-Pacific countries, thereby improving its low level of understanding of international safeguards regime and enhancing nuclear nonproliferation regime. In addition, as an official sponsor of the IAEA Symposium on International Safeguards, Korea will encourage active participation of the safeguards experts in the Asia-Pacific region who have shown poor participation in the previous events by providing financial support by Korea Government. Also, dispatching Korean experts to the foreground of IAEA Symposium as panel, moderator, key note speaker, and the chair will help to enhance national prestige. It is also hoped that the benefits of the APSN Chair country will be utilized to actively inform regional countries of the international education and training activities of INSA and to facilitate the international education and training of INSA by exchanging instructors with ESARDA.

5. Conclusions

This paper briefly examined the progress of the history of APSN from the establishment to the 8th annual meeting. These annual meetings have played an important role in reinforcing the nuclear nonproliferation regime in Asia-Pacific region. Also, this paper examined the significance of APSN and its expectation of future APSN. Korea will continue to play a significant roles for strengthening of nuclear nonproliferation regime not only in the Asia-Pacific region but also in the international community through APSN.

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