

# Chapter 4

## Proposal for a Practical Framework for Regional Cooperation on EPR

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## **CHAPTER 4**

# **Proposal for a Practical Framework for Regional Cooperation on EPR**

All member countries have some kind of a national radioactive disaster management system and a common awareness that every country should play a role in regional cooperation on nuclear emergency and preparedness (EPR), irrespective of the development status of each country's commercial nuclear power generation. In this final chapter, some proposals for constructing a practical framework for regional cooperation in Asia will be presented.

First of all, the IAEA is the key international body to play a leading role in sharing best practices. It continues to be involved in nuclear energy development in the region. The IAEA provides various services to assist member states in the area of nuclear safety and security in meeting their international obligations, and to implement the guidance and recommendations from IAEA. On international cooperation in case of emergency, the IAEA could look at implementing more efficient communication systems to provide real-time information on nuclear accidents to member states and provide frequent updates on how the affected countries are dealing with the situation.

The possible areas of regional cooperation for consideration are as follows:

- 1) Notification of accident information and early warning: through the IAEA
- 2) Harmonisation: zoning and specific actions to be taken by offsite EPR
- 3) Sharing of information: technical cooperation, capacity development, development of methodologies and standards for hazard and vulnerability, and monitoring and assessment

- 4) Drill in cooperation
- 5) Sharing resources: advices by nuclear professionals, equipment
- 6) Synergy with existing framework for regional cooperation in disaster management, such as the Hyogo Framework of Action 2005–2015, the Asian Agreement on Disaster Management and Emergency Response (AADMER), and others.

By making the most of the activities in ANSN, in FNCA, and in the ASEAN Nuclear Energy Cooperation Sub-Sector Network (NEC-SSN), efforts can be focused more on effective public communication of the nuclear issues for a more integrated approach to regional nuclear cooperation. For example, in August 2013, FNCA reached a consensus regarding a document on EPR, more or less recognizing the need to promote regional cooperation in EPR. The FNCA ministerial meeting in December 2013 had decided to work toward regional cooperation in Asia, where study panel members considered that the ANSN could be an appropriate working platform, given a dedicated working group on EPR. It is strongly recommended to ERIA members that they also participate in the discussion and collaborate for cooperation in these six areas.

As a result of the discussions, several recommendations for developing a regional cooperation framework have been proposed, as follows:

- Establishment of a common database for radiation monitoring and information on nuclear facilities.

With difficulties in establishing a workable EPR in Asia, including coordination among diverse agencies within a country, a less strict scheme would need to be first constructed. “A common database” should include, for example, templates for putting information in windows for member countries, and establishing a centre of excellence for training would also be expected in the future.

- Setting a model for an EPR program by China, the Republic of Korea, and Japan

Since these three countries—Japan, Republic of Korea, and China—are operating NPPs, regional cooperation among these countries could set a model. So far, the high-level regulators meeting in December 2012 recognized the value of such cooperation, especially the protocol of notification. For example, the Republic of Korea is already equipped with some kind of technical advisory system and radiation monitoring network at the national level, such as the Atomic Computerized Technical Advisory System for a Radiological Emergency (AtomCARE), Radiation Source Location Tracking System (RadLot), and Ubiquitous Regional Radiation Emergency Supporting Team (U-REST). The application of these systems at a regional level would be deemed an effective approach.

- Learning more from regional cooperation in the EU and in Nordic countries

Since European countries depend on nuclear energy to generate around one-third of their power requirements, concern is high for regional cooperation in EPR. Learning from the EU and Nordic models would benefit the Asian countries significantly. Specifically, the Nordic Working Group of Emergency Preparedness (NEP) would be the most appropriate one to follow since it is a voluntary activity based on mutual reliability.