

Analysis of Nuclear Terrorism Threats in Indonesia

According to the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT), which has been ratified by the Government of the Republic of Indonesia into Law No. 10 of 2014, nuclear terrorism is a violation committed if someone uses radioactive material illegally and intentionally to cause: serious death or bodily injury, or serious damage to property or environment, or forcing other people, international organizations or countries to commit or refrain from certain actions. So far, nuclear terrorism has become a global issue.

Indonesia as part of the international community has actively participated in various international cooperation efforts to prevent nuclear terrorism event. Among others is the Nuclear Security Summit forum. Through this forum the Government of Indonesia recognizes the serious threat of nuclear security and the need for international cooperation to achieve the goal of securing all nuclear materials, nuclear facilities, radioactive sources and radiation facilities worldwide from the misuse by various parties.

The Indonesian government acknowledges that terrorism occur lately has increased in their sophisticated method since the perpetrators are able to keep up with technological developments and current community social conditions. Therefore, the acts of terrorism can create fear in the community. In Indonesia, within the period of 2010 to 2017 there were 130 cases of terrorism. This number shows that terrorism is a serious problem in Indonesia which is not only involve domestic actors, but also transnational organizations.

According to Frantz and Collins (2007) nuclear weapons technology is not a new technology that is only owned by the superpower countries. The technology has been found for more than 60 years ago and has become spread and developed worldwide. The simple design of low purity nuclear weapons can easily obtained, especially since the existence of internet. The issue of global nuclear terrorism threats has influenced the Indonesia's national dynamics strategic environment. The large number of nuclear technology uses in Indonesia, faces with the fact that Indonesia is still facing the terrorism and radicalism threat, this condition may potentially cause Indonesia to face the threat of nuclear technology misuse. In addition, the openness of Indonesia territorial waters and ports due to limited supervision and security control may cause Indonesia to be an illegal trade area which may connected to global nuclear terrorism threats. As an archipelagic country, of the 8.3 million Km² area of the Indonesia archipelago there are 6.4 million Km² area covered by ocean, with the coastal line of 108 thousand Km. Therefore, illegal trade activities is a real threat for Indonesia.

In Indonesia nuclear technology has been widely used. There are three nuclear research reactors located in Serpong, Bandung and Yogyakarta, and seven non-reactor nuclear installations located in Serpong. The use of radioactive sources are spread out throughout the Country. Based on data from the Nuclear Energy Regulatory Agency (BAPETEN), as of April 8, 2019, there were 12.039 licenses of radioactive sources and nuclear materials. They are used in medical sector (6.379 licenses), industrial sector (5.641 licenses), and nuclear installation sector (19 licenses). From the perspective of national security, these data indicates potential threats if the radioactive materials are not under control.

Efforts to prevent misuse of radioactive material in facilities are carried out by operators through implementation of nuclear security principles. In addition, BAPETEN applies surveillance and inspection to those facilities. Efforts to prevent the misuse of mobile radioactive sources have challenges since they are more vulnerable to misuse or sabotage. Therefore, to prevent nuclear security event, access to the sources must be selective given to trustworthy personnel. Furthermore, effort to prevent radioactive source illicit trafficking may carried out by installing Radiological Portal Monitor (RPM). Currently, there are six ports installed with RPM.

Having acknowledged those threat, the study focus on analyzing the nuclear terrorism threats in Indonesia. As an initial study it's analyze the threat for each province. A nuclear terrorism threat index is used to quantify the threat. The index is calculated from the radioactive sources use and the terrorism incidents. Even though the radioactive sources use may vary day to day, nevertheless the study may give a capture of the threat within the region. Furthermore, future studies are needed to analyze the potential risk impact of the threats as well as to analyze the prevention and deterrence efforts by using currently available infrastructure. The studies are important, since the results are expected to contribute to maintain the Indonesia national security.

Gender

Female

State

Indonesia

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