

## Cambodia's Participation in Coordinated Research Project (CRP)

In this presentation, we will look at the results of Cambodia's participation in the Coordinated Research Project (CRP) and how the mobile application "Tool for Radiation Alarm and Commodity Evaluation (TRACE)" will help users, especially Front Line Officers (FLOs), to reduce the hurdle of Initial Alarm Assessments and random inspections and focus on the most suspicious containers.

Under the Memorandum of Understanding (MoU) between the United States and Cambodia, represented by the United States Department of Energy (USDoE) and Secretariat of National Counter Terrorism Committee (SNCTC), it was decided that 6 Radiation Portal Monitors (RPMs) be installed in Sihanoukville Autonomous Port at the container gate in 2011 and 4 more at the entrance and exit of railyard in 2018. Since the early stage, Customs officers have been playing the main role in operating the system; and Secondary Inspections (SI) on containers have been made to prevent any potential nuclear risks from coming in and going out of the country. To decide for SI, officers are trained to look at different criteria such as Alarm Profiles, Sigma Values and Commodity Information, to name a few. However, the high volume of the flow of containers in and out of the port leads to high number of secondary inspections, which requires a lot of hard work. Moreover, Customs officers have to be rotated from one checkpoint to another after a few years of service. This poses even more challenges to the operation because assessing the alarms also requires some knowledge of the Alarm Assessment itself. Thus, it becomes quite challenging for new officers who come after official trainings. Faced with the problem, we need a solution to this challenge to both improve the efficiency of the assessment and reduce the number of random SIs and focus on the most interesting containers.

The International Atomic Energy Agency (IAEA) initiated Coordinated Research Project (CRP) with the period covered from 2015 to 2019 to collect and analyze data in order to improve alarm assessments and to develop TRACE that can help users assess the alarms faster and more reliably at the initial stage. As one of the member states having participated since 2015, and in contribution to the CRP, Cambodia submitted more than 100 datasets of 8-point Secondary Inspections using Radiation Isotope Identification Devices (RIIDs) and various testings in 2017, datasets of Alarm Records in 2018 and will submit more datasets in 2019 and also conduct "TRACE Beta Testing" to conclude the project.

As a result, TRACE proves to be a very useful and reliable reference tool for FLOs in daily duties. It provides faster analysis and more confidence to the officers and also requires little time and efforts for training newcomers, thanks to its intuitive user interface and features.

### Gender

Male

### State

Cambodia

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**Track Classification:** CC: Innovative technologies to reduce nuclear security risks and improve cost effectiveness, where feasible