

Threat and Hazard Identification and Risk Assessment (THIRA) Process: Assessing RN Threat Inclusion

OVERVIEW

The Department of Homeland Security (DHS) has a need for a greater insight into how state and Urban Area Security Initiative (UASI) officials are (or are not) including Radiological and Nuclear (RN) threats and estimating RN detection capability targets in their THIRA process. This insight will enable DHS and relevant stakeholders to develop better strategies for providing guidance, tools, or other assistance to state, local, tribal, and territorial officials.

PROJECT BACKGROUND

Federal, state, local, tribal, and territorial partners work together to ensure that the domestic portion of the Global Nuclear Detection Architecture (GNDA) remains robust. START has developed a risk-based planning tool for DHS, the *Capability Development Framework* (CDF), to identify needs and opportunities for improving the GNDA, but DHS largely relies on its partners to build and implement their own RN detection capabilities. States and the UASI areas receiving funding assistance from certain Federal Emergency Management Agency (FEMA) preparedness grants must annually conduct a Threat and Hazard Identification and Risk Assessment (THIRA) to identify and prioritize the threats and hazards they face, as well as capability targets to address those threats and hazards. The transition of the CDF tool to state, local, tribal, and territorial partners highlighted that the existing model of funding assistance may fail to adequately address RN threats within standard risk assessments and participation in the GNDA.

To address this potential issue, START, in partnership with the UPMC Center for Health Security, produced a high-level strategy document that recommends options to encourage consideration of the RN detection mission into the THIRA process. In so doing, the research team conducted a study that:

1. Provides a detailed examination of the THIRA process;
2. Assesses the process by which jurisdictions conduct their THIRAs and the reasons and methods for inclusion or exclusion of RN threats and capability targets; and
3. Presents a set of recommendations for engagement and assistance efforts and the integration of RN risk assessment frameworks (including, but not limited to, the CDF) and capabilities assessments for upcoming revisions of the THIRA process.

FINDINGS

THIRA is a four-step risk assessment process developed by FEMA that enables communities to identify: the threats and hazards they might face, together with potential impacts; what kind of resources are needed in order to prepare; and lastly, what must be done to mitigate the threat or hazard. The process is intended to help communities make informed emergency and/or disaster preparedness decisions and plans. When conducted according to official guidelines, communities will have identified the following:

- 1) **Desired Outcomes:** specification of standards that must be met for a community to effectively manage an incident
- 2) **Capability Targets:** definitions of success for each capability and for achievement of all desired outcomes
- 3) **Resource Requirements:** identification of resources needed to meet capability targets and manage the identified threats and hazards should they occur



THIRA Process

Approaches to risk assessments differ for each locale

The study found that while the existing THIRA guidance and model of funding assistance does not necessarily directly inhibit state, local, tribal, and territorial entities' inclusion of RN threats within THIRA, the current guidance and predominant focus on response and consequence management (as opposed to prevention) does have the unintended consequence of dis-incentivizing consideration of RN threats as part of the THIRA process.

The study found that there is significant variation in how jurisdictions define the concepts of threat and hazard, as well as in the methodologies used to identify threats and hazards relevant to each jurisdiction. The process for developing a THIRA also differed considerably by jurisdiction, although there were some common themes among jurisdictions. In particular, we found a common need for clarification of the THIRA guidance and for more informational resources to aid in production of the THIRA.

The THIRA process is not focused on prevention and makes inclusion of RN threats difficult

THIRA users expressed a clear desire for increased access to resources such as intelligence-based risk assessments, detailed sample scenarios, and empirical data that can be used to support scenario development. Strong interest was also expressed in having access to risk assessment tools that can bring risk information together in a common picture, such as the CDF.

Access to RN experts, involvement of RN experts in the local THIRA process, and educating the officials about the nature of RN threat drives the inclusion of RN threats in risk assessments

Finally, the study found that there is a general lack of understanding among the officials and professionals involved in the THIRA decision-making process about the threats, hazards, and consequences an RN incident might pose to their communities. It is, therefore, critical to socialize RN threats and hazards to a diverse set of (traditionally non-RN oriented) organizations and community leaders through educational programs, tools, and information.

METHOD

The project team employed a mixed method of in-depth literature review and field research, which included official interviews and a focus group session. The employment of a mixed methodology to conduct this study allowed the project team to triangulate its data and findings, while offsetting the weaknesses inherent to using each approach by itself.

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