The Nuclear Threat Initiative Launches Nuclear Materials Security Index

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Moscow—The Nuclear Threat Initiative (NTI), a U.S.-based non-governmental organization, recently launched its inaugural Nuclear Materials Security Index, in partnership with the Economist Intelligence Unit (EIU). The Carnegie Moscow Center hosted NTI for the Russian launch on February 9. Dubbed the "first of its kind," the Index measures the nuclear security conditions in 176 countries based on five categories for states with more than one kilogram of weapons-usable nuclear material and three categories for states with less than one kilogram. According to Page Stoutland, vice president of NTI, the Index was launched to "maintain momentum on nuclear material security."

The momentum that Stoutland was referring to was connected with the U.S. President Barack Obama's April 2009 speech in Prague, when he announced "a new international effort to secure all vulnerable nuclear material around the world within four years." The United States followed up on the president's pledge with the Nuclear Security Summit in Washington in 2010, which saw the participation of 47 states and focused on preventing nuclear material falling into the hands of terrorist or criminal groups. A second Security Summit took place in Seoul in March 2012.

Depending on the definition of "vulnerable," four years may have been a little optimistic, but nevertheless, international security experts agree that nuclear material in the hands of terrorists would represent a dire threat and needs to be secured. However, reaching a consensus on what concrete steps are necessary to secure dangerous nuclear material is more elusive. And it is with this difficulty in mind that NTI and EIU developed the Nuclear Materials Security Index. The Index is looking to "frame the issue in a truly comprehensive way," according to Stoutland, so that a conversation can begin on how to measure progress.

Speaking at the event, Alexei Arbatov, member of the Russian Academy of Sciences and chair of the Nonproliferation program at the Carnegie Moscow Center, noted that securing nuclear material is "one of the biggest problems of contemporary security." He underscored that all states, regardless of their nuclear status, have an interest in securing this material, providing an area for joint action.

The Index is intended to, in the words of Stoutland, provide a "baseline against which progress can be measured," and to build a consensus that can "serve as a basis for a dialogue on priorities." NTI hopes that the Index will provide an analytical framework which can be constructively critiqued and shared around the world to provide a sense of objectivity for the conversation on nuclear material security. A central tenant of the Index is transparency, which NTI hopes will increase international confidence.

In its efforts to increase international confidence, NTI commissioned a panel of experts from twelve countries, including Russia, China, India, South Africa, Brazil, Kazakhstan, the United States, and the European Union. Participating from the Russian Federation was Anatoly Dyakov, a professor of physics at the Moscow Institute of Physics and Technology. The participation of Dyakov, along with the other members of the international board was, in the words of Stoutland, "key to indicator selection." In addition to selecting the indicators, the group also advised on the weight each of the 18 indicators would have on a country's overall rank.

A total of 32 states possess greater than one kilogram of nuclear material, subjecting them to scrutiny under all five categories: the quantity and physical location of nuclear material; physical security and control measures; global norms; domestic commitments and capacity; and societal factors. The remaining 144 states were only subject to scrutiny under the latter three categories as the quantity of nuclear material was deemed less significant.

Topping the overall rankings was Australia, which Stoutland said benefited "from small quantities of nuclear materials, strong societal factors, as well as high scores in the other categories." The United Kingdom, for example, has excellent scores across the board, but was brought down in overall score by the large amount of weapons-usable material it possesses. Following Australia in the rankings, are Hungary, the Czech Republic, Switzerland, and in fifth place, Austria. The United States was weighed down by the fact that it has yet to ratify two treaties deemed central to the global norms category: the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material and the International Convention for the Suppression of Acts of Nuclear Terrorism. Also bringing down scores in the global norms category was the low level of transparency of nuclear material and security in countries like Israel, North Korea, India, and China.

Rounding out the bottom of the list of the 32 countries with greater than one kilogram of weapons-usable material are India, Vietnam, Iran, Pakistan, and North Korea. While four of the countries are continuing to produce weapons-usable nuclear material, Vietnam ranked 29 out of the 32, not because of large quantities of material, but the lack of an independent regulatory agency, poor physical security when transporting nuclear materials, and security personnel measures, to name a few. One of the more contentious categories, societal factors, weighed heavily on some states' scores, with the potential for social unrest, the pervasiveness of corruption, and the presence of groups interested in illicitly acquiring nuclear materials complicating their rankings.

Despite the hierarchical rankings given to countries, NTI contends that the Index "should be considered more of a scorecard," that "offers a path forward for individual states" which may not have placed high on the list, instead of being used to praise or condemn. According to NTI co-chairman and former U.S. senator Sam Nunn, the "Index challenges governments worldwide to respond to the threat by taking appropriate steps to strengthen security conditions."

The Index had received some criticism, as noted by Dyakov during the event at Carnegie. Dyakov voiced disagreement with the notion that possessing larger quantities of nuclear material made it more susceptible to falling into the wrong hands, thus lowering a country's ranking. He proposed that each state is a unique case as different factors complicate the scoring. The Russian expert also disagreed with the final score given to Russia in the field of political stability (45 out of 100).

Stoutland stated that the feedback NTI had received so far has been overwhelmingly positive, with one unnamed state already approaching the organization directly in order to address specific areas of deficiency. NTI hopes that the Index will become a baseline to measure progress and help states reach a consensus on what steps are needed for nuclear material security.

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