

Nuclear Fuel Cycle: Debates on Multilateral Approaches

- Session:** Grand Ballroom 1
Date/Time: February 19, 2013 / 15:30-16:45
- Moderator:** Corey Hinderstein, Nuclear Threat Initiative
- Speakers:** Tom Coppen, Utrecht University
Caroline Jorant, SDRI Consulting
Kang Jungmin, Korea Advanced Institute of Science and Technology
William Tobey, Harvard University
- Rapporteur:** Tristan Volpe, George Washington University

Session Sketch

Corey Hinderstein from the Nuclear Threat Initiative opened an informative discussion on multilateral approaches to the nuclear fuel cycle with an important point. In order to develop effective solutions to the spread of proliferation risk technology, a comprehensive approach is needed that brings together both technical and policy expertise. The diverse range of skilled panelists certainly bridged this gap, and provided key insights into the political, legal, and technical issues that stem from the nuclear fuel cycle. Although the panelists disagreed about the relative efficacy of multilateral tools, a unanimous consensus emerged that the spread of sensitive nuclear fuel cycle technology constitutes a major international security problem.

Several panelists pinpointed the technical nature of the problem. Kang Jungmin from Korea Advanced Institute of Science and Technology underscored that nuclear power provides energy security and environmental benefits. The supply of nuclear fuel and management of spent fuel waste are key issues that drive some states to pursue domestic enrichment and reprocessing capabilities. Since the ability to enrich uranium or reprocess plutonium is a major step towards a nuclear weapon, this sensitive technology carries an intrinsic risk of proliferation.

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Multilateral approaches thus seek to provide access to these crucial nuclear fuel cycle services while mitigating the threat of proliferation that stems from the indigenous development of this technology. Caroline Jorant of SDRI Consulting provided a detailed history of the multilateral policy concept and its implementation over the last few decades. The idea of having several nations provide nuclear fuel cycle services emerged during the last ‘nuclear renaissance’ as a means to prevent the spread of sensitive technology while also guaranteeing the supply of fuel. She argued that the basic policy solution still makes sense today. William Tobey of the Belfer Center for Science and International Affairs at Harvard University contended that the multilateral approach is not a nonproliferation panacea. He argued that it is far more important to focus on stopping the spread of enrichment and reprocessing technology rather than simply placing it under international management.

As an astute scholar of law, Tom Copen of Utrecht University drew attention to the legal dilemma created by several articles in the Nonproliferation Treaty. Under Articles 1 and 2 of the treaty, states have an absolute obligation to not manufacture nuclear weapons. But these articles do not specify exactly what activities constitute the production of a nuclear weapon. Given the right to peaceful nuclear energy stipulated under Article 4 of the treaty, the scope of such activities have been, and continue to be, hotly debated. Many states interpret the article as a fundamental right to develop enrichment and reprocessing technology. He emphasized that a multilateral approach does not automatically resolve this dilemma. States must still uphold their nonproliferation obligations, and participation in a multinational fuel bank, for example, does not require them to sign away their rights to peaceful nuclear technology.

The panel concluded with a spirited discussion of these political and technical issues, with particular emphasis on the potential spread of sensitive technology to countries in East Asia.

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