

PONI Summer Conference

Lami Kim

Research Fellow at Harvard Kennedy School's Belfer Center

PhD Candidate at The Fletcher School of Law and Diplomacy

July 12th, 2016

How to Use Nuclear Energy without Endangering Int'l Peace & Security?

—

Proliferation Risks of Civil Nuclear Assistance

Scholars and policymakers have emphasized the danger of the spread of nuclear energy.

- E.g. Fuhrmann (2012): Civil nuclear assistance inadvertently contributes to proliferation.

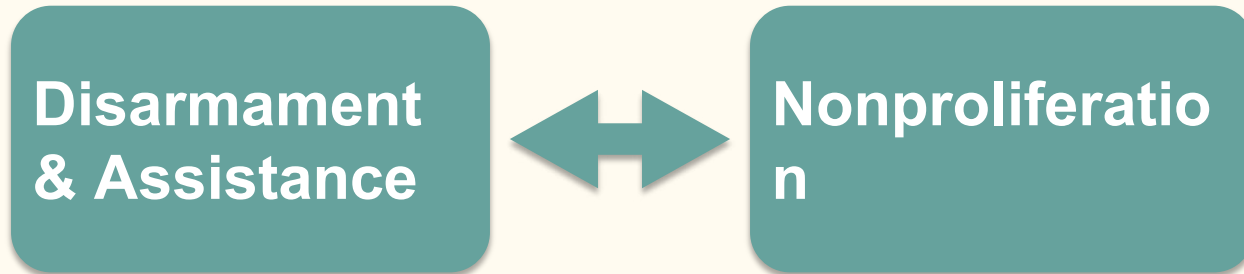


<Source: Huffington Post>

Policy Implications?

Civil nuclear assistance should be stopped?

- Growing demands for clean and affordable nuclear energy
- “Inalienable rights” to the peaceful use of nuclear energy (Art. 4 of the NPT)
 - Trade-offs between NWS and NNWS



Outline

- Evolution of Int'l Nuclear Export Control Regulations
- Effectiveness of the Nuclear Suppliers Group (NSG)
- Limitations and Challenges facing the NSG
- Policy Suggestions

Evolution of Int'l Nuclear Export Controls

- Virtually no regulations in the beginning
- IAEA (1953)
- NPT (1967)
 - Article 3(2): safeguards for fissionable materials
- Zangger Committee (1971)

1974 India's "Peaceful Nuclear Explosion"



<Source: Federation of American Scientists; Quora>

Emergence of the NSG



Established in 1975 to regulate states' nuclear export behavior.

The NSG developed the 1978 Guidelines for Nuclear Transfers (INFCIRC/254 Part 1).

After Iraq's covert nuclear weapons program was discovered, the NSG adopted another Guidelines in 1992 (INFCIRC/254 Part 2) to govern the export of dual-use items and technologies.

Obligations as NSG Members

- Refrain from transferring enrichment and reprocessing capabilities
- Provide assistance only to countries subject to IAEA safeguards
- Legislate national controls and procedures regarding nuclear export
- Ensure protection against theft and prevent transfer to a third party w/o permission
- Abstain from exporting to regions of conflict and instability
- Share relevant information among members

Has the NSG Been Effective?

Facilitates int'l cooperation in limiting assistance that may contribute to the development of nuclear fuel cycle capabilities...

- By mitigating the uncertainty of others' defection
 - Through internalization of NSG Guidelines into domestic law
- By building capacity through information sharing
- By incentivizing aspiring members to abide by nonproliferation norms

Nuclear Fuel Development Assistance

Supplier(s)	1st Year	Recipient	Type of Assistance
Soviet Union	1958	China	Reprocessing, enrichment
France	1959	Israel	Reprocessing
France	1971	Japan	Reprocessing
France, China	1974	Pakistan	Reprocessing, enrichment
France	1975	Taiwan	Reprocessing
Italy	1976	Iraq	Reprocessing
Germany	1979	Brazil	Reprocessing, enrichment
France	1980	Egypt	Reprocessing
China, Pakistan	1984-95	Iran	Reprocessing, enrichment
China	1986	Algeria	Reprocessing
Pakistan	1997	Libya	Reprocessing, enrichment

Limitations & Challenges

Tainted legitimacy

- Infringes “inalienable rights” to peaceful use of nuclear energy?
- A cartel that aims to monopolize nuclear technologies?

Negative impact of its membership issue on the NPT

Ineffectiveness in preventing nonstate actors' nuclear trafficking

Summary

The international community should manage proliferation risks involving civil nuclear assistance.

Nuclear assistance that could contribute to the development of nuclear fuels should be thwarted.

The multilateral nuclear export control regime, in particular the NSG, has been effective but is faced with challenges.

Policy Suggestions

- Expedite the creation of the multilateral nuclear fuel bank and ensure the stable supply of nuclear fuels.
- Oblige NSG members to prevent their nuclear importers from developing nuclear fuel cycle capabilities without their consent.
- Enhance collaboration with the UN's 1540 Committee.

Questions &
Comments?