



Implications of Fukushima for Nuclear Power, Nonproliferation & Trilateral Cooperation

Sharon Squassoni

Senior Fellow & Director

Proliferation Prevention Program

ROK-U.S.-Japan Dialogue on Nuclear Issues: Towards a Common Trilateral Approach

Tokyo, Japan

Hosted by The Japan Institute of International Affairs

September 20-21, 2011

CSIS

CENTER FOR STRATEGIC &
INTERNATIONAL STUDIES

Proliferation
Prevention Program

What's New?

- **Developments in Japan**
- **IAEA June 2011 Ministerial (& Action Plan)**
- **UN Secretary General's High Level Ministerial this week (& release of draft report) – a “bridge” to the 2012 Nuclear Security Summit**

IAEA June 2011 IAEA Ministerial on Nuclear Safety

- **Elements of Action Plan (I)**
 - Strengthen emergency preparedness & response
 - Including IAEA assistance & fact-finding missions
 - Strengthen effectiveness of national regulatory bodies
 - Including IAEA enhanced peer review missions
 - Strengthen operating organizations
 - Including IAEA OSART missions
 - Strengthen IAEA safety standards

IAEA June 2011 IAEA Ministerial on Nuclear Safety

- **Elements of Action Plan (II)**
 - Strengthen implementation of regimes (including liability)
 - Development of infrastructure for new nuclear states
 - Capacity building for new nuclear states
 - Facilitate use of information, expertise and techniques for monitoring, decontamination and remediation both on- and off-nuclear sites, including removal of damaged SNF and radioactive waste
 - Enhance transparency & information dissemination
 - Research & development in nuclear safety, technology & engineering

UN High-Level Meeting on Nuclear Safety & Nuclear Security (Sept 22, 2011)

- Intended as bridge to 2012 Nuclear Security Summit
- Not much on nuclear security, except to say share a common objective
- Notable for its global approach – not just nuclear agencies involved, but all relevant UN agencies (WHO, WMO, PAHO, UNDP, UNEP, etc.)

Since Fukushima...

- **States with Nuclear Power**
 - Some phasing out (Germany, Switzerland)
 - Some reducing dependence (Japan)
 - Some slowing down (China, U.S.)
 - Some business as usual (Korea)
- **States Aspiring to Nuclear Power**
 - Some have dropped nuclear power for now (Italy)
 - Others adopting “wait & see” in climate of poor public support (Chile, Ghana, Thailand, Morocco)
- **EU stress tests; US NRC reviews**
- **Public support for nuclear power has declined.
But for how long?**

Impact in nuclear power states

- **Regulatory changes may increase costs**
- **Less enthusiasm for government subsidies?**
 - Or more funding for safety improvements in new designs?
- **In US, NRC 90-day review, followed by more in-depth review**
 - Topics: external events (seismic, flooding, fires, etc.), station blackout, severe accident measures, loss of plant responses, emergency preparedness
- **In China, halt to new construction until reviews completed**

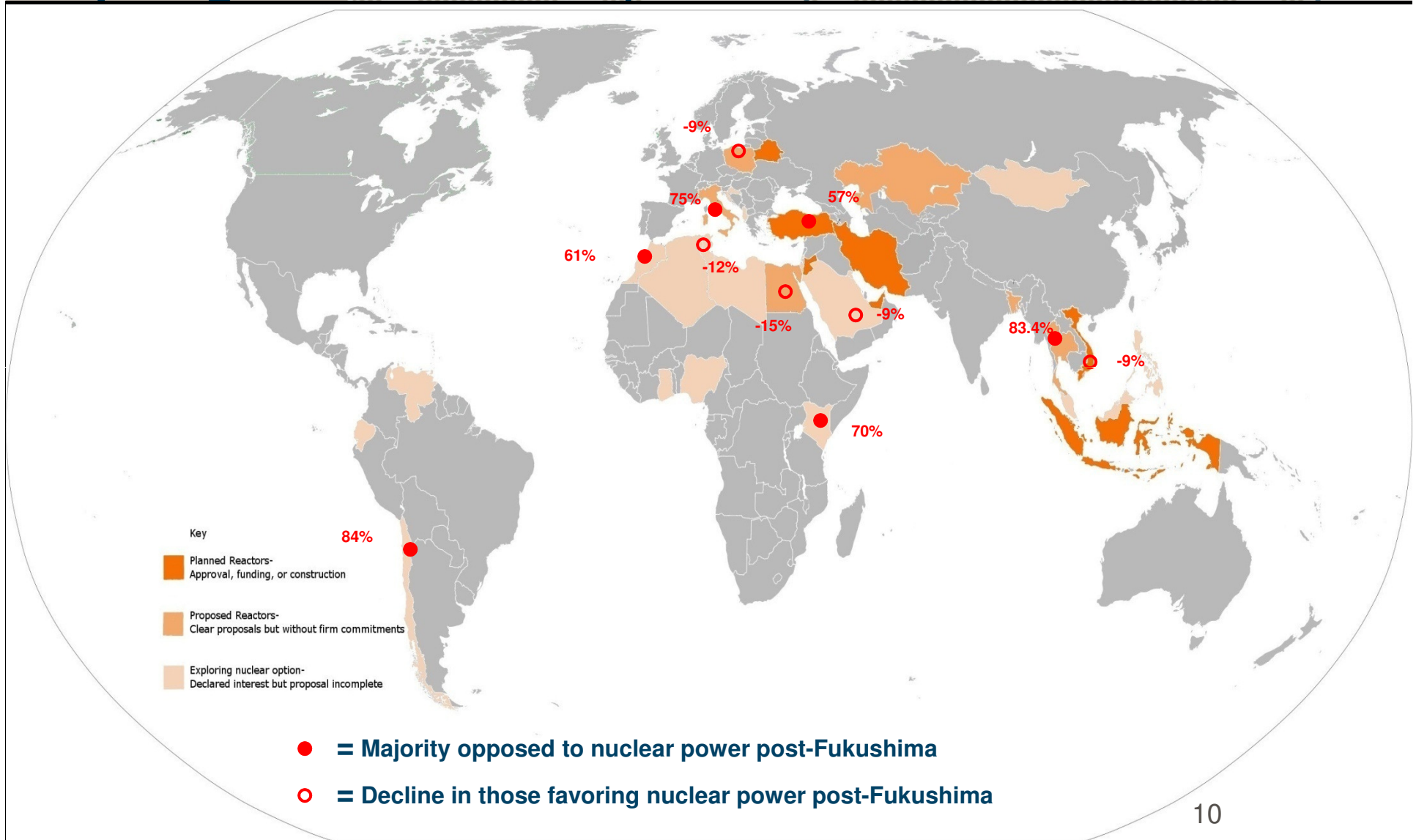
Impact in nuclear power states

- **IPSOS poll May 2011** (24 countries polled: Argentina, Australia, Belgium, Brazil, Canada, China, France, UK, Germany, Hungary, India, Indonesia, Italy, Japan, Mexico, Poland, Russia, Saudi Arabia, S. Africa, ROK, Spain, Sweden, Turkey and US)
 - Only India and US have majority favoring nuclear energy (Poland too)
 - None (except Poland) has majority favoring continued new build
 - Only Russia & India have majority viewing nuclear as long-term viable option (Saudi Arabia too)

Impact in aspiring nuclear power states

- Will they continue to seek cheaper, Gen II-III designs?
- Delays as vendors take extra precautions to ensure safety & security?
- Delays as aspiring states take extra pains to develop safety culture, regulatory infrastructure?
- More regional collaboration on safety and security?

Impact of Fukushima on Views of Nuclear Energy in Aspiring Nuclear States (WIN-Gallup International 3-21-11;4-10-11 poll)



Nonproliferation implications

- **Less enthusiasm for nuclear power could mean slower expansion**
 - Fewer reactors
 - Fewer states
- **Could mean more enthusiasm for global cooperation on fuel cycle issues as states see dangers of “too much sovereignty”**
 - Impetus for regional and multilateral solutions?
- **Concerns about nuclear safety could help buttress improvements in nuclear security**

Nuclear safety, security & nonproliferation linkages

- **All have the ultimate objective of protecting people, society & environment from radioactive releases**
 - If the facility is not secure, introduce potential for man-made safety problems
 - If facilities contribute to proliferation, increase risks to publics

Upcoming opportunities to address nuclear safety

- **September 2011 UN Meeting (Safety & Security?)**
- **Extraordinary Session in 2012 of parties to the Convention on Nuclear Safety**
- **Nuclear Security Summit 2012 (interface of safety & security)**

Areas for cooperation – Nuclear safety & security

- **Japan, China and ROK engaging in emergency response coordination.**
 - Recognition of shared regional responsibilities for crises that affect region as a whole.
- **Japan, China and ROK cooperation between centers for excellence (encompassing nuclear security & safety?)**

Areas for cooperation -- nonproliferation

- **Time for renewed discussions in Asia about regional fuel cycle collaboration?**
 - In 1990s, tension between Japan's desire for acceptance of its fuel cycle facilities, China's aversion to regional "supervision" and uneven nuclear development
 - In 2010s – different ballgame? Japan no longer seeking acceptance (except maybe domestically?), China moving toward fuel cycle facilities, Korea desires full fuel cycle. SE Asia may play a role, too.
- **What kind of cooperation could best balance nuclear safety, security and nonproliferation?**

Contact information

Proliferation Prevention Program @ www.csis.org

ssquassoni@csis.org

202 775-3293