

## **Building nuclear governance in the Asia Pacific: the next big project** by David Santoro and Carl Baker

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The Russian decision to [curtail nuclear cooperation with the United States](#) and to [withdraw from the 2016 Nuclear Security Summit \(NSS\)](#) is a major setback for global efforts to manage nuclear security. A consequence of the general downturn in relations following the Ukraine crisis, Moscow's decision will undermine over two decades of successful US-Russia cooperation aimed at ensuring that loose nuclear weapons, materials, and know-how do not fall into the hands of terrorists. It will also diminish the NSS process, which has enhanced nuclear security worldwide since its launch in 2010.

While every effort should be made to reverse the Russian decision, this should not distract from investing in the momentum that has been building for better nuclear governance. It is especially important to focus on the Asia Pacific. Despite the 2011 Fukushima nuclear accident in Japan, this region is on the cusp of a [considerable expansion in nuclear power plants](#) and with it an increase in nuclear materials, adding to worries about the safety and security of radioactive sources. This is worrisome for a region that hosts several nuclear-armed states, has been involved in illicit trafficking networks, and continues to experience significant terrorist, insurgent, and pirate activity.

Fortunately, in recent years, there has been a growing regional willingness to cooperate in addressing nuclear dangers. In addition to leading implementation of the [Bangkok Treaty](#), which establishes a nuclear-weapon-free zone in Southeast Asia, the 10-member [Association of Southeast Asian Nations \(ASEAN\)](#) has enhanced nonproliferation and counter-terrorism cooperation. In 2012, it launched the ASEAN Network of Regulatory Bodies on Atomic Energy (ASEANTOM), which creates a forum for Southeast Asian regulators to share information and build capacity on nuclear safety, security, and safeguards. Comprised of ASEAN members and states from neighboring regions, the 27-member [ASEAN Regional Forum](#) has hosted an "inter-sessional meeting on nonproliferation and disarmament" since 2009 to discuss ways to combat nuclear proliferation, promote disarmament, and enhance the peaceful use of nuclear technology. It has also convened workshops on implementation of [United Nations Security Council Resolution 1540](#), which requires states to develop and enforce legal and regulatory measures against proliferation, and on nuclear forensics cooperation. Meanwhile, other regional organizations have begun to focus on building norms and standards on nuclear-energy development. The [Asia-Pacific Economic Cooperation](#), a forum for 21 Pacific Rim member

economies, and [ASEAN Plus Three](#), a grouping that links ASEAN states with China, Japan, and South Korea, are developing recommendations for organizing regional cooperation on nuclear energy.

Top-down leadership by these regional organizations is complemented by bottom-up initiatives within the nuclear industry. The [World Institute for Nuclear Security](#), which receives funding support from governments, foundations, and corporations involved in nuclear security, provides a forum to share best practices in strengthening the physical protection and security of [nuclear](#) and [radioactive](#) materials and facilities worldwide. The Japanese-led [Forum for Nuclear Cooperation in Asia](#) provides an ad hoc cooperation framework on the peaceful use of nuclear technology through several project activities in radiation and research-reactor utilization, as well as nuclear safety and nuclear infrastructure. Working in association with the [International Atomic Energy Agency](#), the [Asian Nuclear Safety Network](#) focuses on pooling, analyzing, and sharing nuclear safety information, and the [Asia-Pacific Regional Cooperative Agreement](#) on promoting and coordinating research, development, and training projects in nuclear science and technology. The [Asia-Pacific Safeguards Network](#), for its part, links national authorities and agencies to improve safeguards implementation among its members. Finally, the newly-established nuclear-security centers of excellence in Japan, South Korea, and China (and others elsewhere in the Asia Pacific) offer training and education to professionals in the field to ensure that progress on nuclear safety, security, safeguards can be sustained and improved over the long term. Complemented by several assistance programs (mainly funded by the United States, the European Union, and a few regional states), these initiatives seek to build and sustain nuclear safety and security cultures in the region.

The combination of these top-down and bottom-up efforts are positive, but they have developed in a fragmented, ad hoc manner. More than ever, these energies need to be enhanced and harnessed into a more coherent framework to avoid duplication of efforts and to take advantage of economies of scale and comparative advantages of each regional organization or initiative. Plainly, nuclear governance needs to be better institutionalized in the Asia Pacific.

Doing so will be a long and difficult process. Regardless of the future organizational structure and components, advancing nuclear governance requires successful management of several important expectations. Our work in the [Nuclear Energy Experts Group](#) of the [Council for Security Cooperation in the Asia Pacific](#), an unofficial dialogue among regional nuclear-policy experts and scholars on ways to strengthen nuclear governance, points to four preliminary key findings.

First, the onus for action is on states. Building nuclear governance in the region begins with state endorsement of the major international treaties, conventions, and agreements on nuclear safety and security, namely the [Convention on Nuclear Safety](#), the [Convention on the Physical Protection of Nuclear Material and its Amendment](#), and the [International Convention for the Suppression of Acts of Nuclear Terrorism](#). An increasing number of Asia-Pacific states have adopted these instruments, but many have yet to do so. This must change. Ideally, states should also draw up national risk and threat assessments to better understand their respective nuclear safety and security problems, establish priorities, and guide policy. Assessments should be organized in three management areas: facilities that use/store nuclear and radioactive materials, transport of these materials, and nuclear accident/incident response and mitigation. Such state actions are a prerequisite to the systematic examination of ways to better institutionalize nuclear governance at the regional level.

Second, priority should be given to the management of radioactive sources used outside the nuclear power industry, especially in Southeast Asia. Traction can be gained quickly in this area because all Asia-Pacific states possess such materials and have a vested interest in learning how to manage them in a safe and secure manner. In particular, there is a need for better understanding of the processes involved in (and the implications of) the conversion of research reactors and isotope-production facilities from the use of highly-enriched uranium to low-enriched uranium, and the removal and disposal of excess nuclear and radiological materials.

Overemphasizing the management of nuclear-power programs should be avoided. Only a handful of regional states (in Northeast Asia and South Asia) have such programs and, while many others (in Southeast Asia) have expressed interest, very few nuclear-power plants will be operational in the near future. Of course, in-depth discussions are needed to better inform nuclear-energy users and aspirants of their choices. Finding options for supplying front-end and back-end fuel-cycle services that preclude the development of indigenous enrichment and reprocessing facilities – the most sensitive nuclear technologies – would be especially useful. But building a strong security culture around the management of all radioactive sources should receive priority because it will pay dividends as countries in the region build nuclear-power facilities in the coming decades.

Third, the nuclear agenda should give equal importance to safety, security, and safeguards issues. Of late, at least at the global level, efforts to strengthen nuclear security governance have received priority. Yet, that is just one piece of the bigger nuclear governance puzzle. While progress in this area is critical, a holistic approach that integrates nuclear safety, security, and safeguards is needed. In other words, the so-called “3 S’s” should be regarded as indivisible. This will require a new mindset as Asia-Pacific states are mostly interested in nuclear safety and safeguards, as opposed to nuclear security, which remains tied to national security and, consequently, tends to be shrouded in secrecy. Approaching the 3 S’s in an integrated fashion will help make progress on all three fronts.

Fourth, expecting too much, too soon from regional cooperation is unrealistic. The “ASEAN Way” of decision-making, which is enshrined in the principles of noninterference, consultation, and consensus, and is the modus operandi for all regional cooperation in the Asia Pacific, has helped build confidence and solidarity among regional states, but it often prevents top-down cooperative initiatives from having a direct policy impact. ASEANTOM, for instance, is a network of nuclear regulatory agencies that will have an important yet solely technical role in Southeast Asia. It is fundamentally different from the [European Atomic Energy Community, known as EURATOM](#), which is a treaty with an influential policy role in European nuclear affairs.

While Asian problems will not be addressed by European solutions, there is room to think creatively about ways to strengthen cooperation in the Asia Pacific. For instance, why not expand the mandate of the [ASEAN Coordinating Center for Humanitarian Assistance on Disaster Management](#), which currently only addresses natural disasters, to also include human-made disasters? After all, responding to a tsunami or a nuclear accident or incident will require similar cooperation and coordination mechanisms. Expanding the Center’s mandate will better prepare its members to address both disaster types.

We must see the forest through the trees. As worrying as it may be, the recent fallout with Russia should not prevent continued and improved global nuclear governance. Russian cooperation is paramount, but important successes can and should also be pursued elsewhere. A smart investment would help sustain and shape the emerging institutionalization of nuclear governance in the Asia Pacific.

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