A New Pathway To Enhance The Nuclear Security Regime?
Lessons Learned from Southeast Asia

FRANCESCA GIOVANNINI

An insightful story

It was October 2011 when, for the first time, I traveled to Jakarta, Indonesia to undertake field research to complete my dissertation. The PhD project aimed to explore the role of regional powers in the design and development of regional nuclear governance institutions and I was eager to explore the role of Indonesia in the Southeast Asian context.

Indonesia’s record as a leader capable of forging alliances and creating momentum for the development of preeminent regional nuclear initiatives has been nothing less than impressive. Two of the cornerstone treaties on which collective security in Southeast Asia is premised, namely the Southeast Asia Nuclear Weapons Free Zone Treaty and the Zone of Peace, Freedom and Neutrality (ZOPFAN), came about precisely because of the active involvement and political support of Indonesia. But more recently, Indonesia has built a far more mixed record of collective security accomplishments and failures. In the area of nuclear security in particular, the country has explicitly played the role of regional spoiler by discouraging and even torpedoing opportunities for regional cooperation1. During the many interviews I conducted across the country, I encountered palpable resistance among Indonesia officials to discussing the prospects of regional nuclear security cooperation and an overall inclination, particularly among junior diplomats, to quickly dismiss the threat posed by nuclear terrorism as “a paranoia of foreign nations”2.

Indonesia’s obstructionism has not been the sole obstacle on the path towards the construction of a Southeast Asian nuclear security regime. Other countries in the region either have sided with Indonesia or pursued the development of border and export control policies through bilateral cooperation with regional and external powers or in other informal settings. ASEAN, the regional organization in charge of leading Southeast Asia regional integration, has been revealed to be unequipped to fully resolve the entrenched divisions among Southeast Asian countries in the nuclear security domain and, until recently, has engaged timidly with the issue of nuclear security through the release of a few inconsequential diplomatic statements that lack any binding force. Many of the ASEAN officials I met in 2011 seemed to hold a grim view of the prospects for the development of a robust regional nuclear security regime, and, in part to justify the tentative leadership that ASEAN has offered in this field, pointed to the many pressing development needs that ASEAN and the region had to confront most urgently.

1 The most important case of Indonesia playing the role of regional spoiler has been in the discussions for the adoption of the ASEAN Counter-Terrorism Treaty. Originally conceived thanks to the leadership of Singapore in 2007, Indonesian opposition has obstructed the treaty since its inception. It entered into force only in 2011 after Indonesia requested several modifications to the original draft including the inclusion of Article II that cites the inviolability of the principle of national sovereignty.

2 Interview at the Indonesia Ministry of Foreign Affairs, KEMLU, Jakarta, Indonesia, October 27, 2011.
Thanks to an acquaintance, however, I was introduced to the Program Officer in charge of the ASEAN-US Technical Assistance and Training Facility Initiative (ADVANCE), sponsored by USAID and the U.S. Department of State. It was in this “alternative” setting rather than in the more conventional setting of political governance of the ASEAN Secretariat that I gained access to genuine conversations about the prospects and challenges to the development of a Southeast Asia nuclear security regime.

Among other goals, ADVANCE is mandated to provide technical support and capacity building assistance to develop the regulatory and governance infrastructures of a soon-to-be ASEAN Community. And an important pillar of the work conducted by ADVANCE is in the field of disaster management and risk prevention which also entails preparing ASEAN to respond to man-made disasters, including a possible nuclear terrorist attack. In the field of disaster management, ADVANCE offers training to build the capacities of ASEAN and of member-states to conduct risk and vulnerabilities assessments, to produce, gather and examine data on risks and threats and to communicate and share sensitive information.

Through its workshops and training, ADVANCE is fostering the most politically in-depth, technically advanced discussions about border control and protection of critical infrastructure and indirectly it is encouraging and supporting the establishment of much-needed regulatory and governance infrastructures on which nuclear security governance can be fostered and ultimately thrive.

The experience in Indonesia deepened my curiosity and motivated me to better understand the role that disaster-preparedness organizations can play in nuclear security. Most specifically, how does a disaster-preparedness approach to nuclear security differ from the current approach? In which ways does a disaster-preparedness approach contribute to strengthening national, regional and global nuclear security governance? What kind of shortcomings does this approach have?

This paper seeks to address some of these questions and to present some of the preliminary findings as they relate in particular to Southeast Asia.

Introduction

Nuclear Security is conventionally defined as: “The prevention and detection of and response to theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving nuclear material, other radioactive substances or their associated facilities”\(^3\). The world has made significant progress to reduce the risk of what is conventionally defined as nuclear terrorism. Various institutional and governance mechanisms, including the UN Resolution 1540, the Nuclear Security Summits and informal partnerships such as the Global Initiative to Combat Nuclear Terrorism (ICSANT) have raised awareness worldwide on the threats to nuclear security\(^4\) posed

\(^3\) IAEA GOV/2005/50.

\(^4\) The International Atomic Energy Agency has identified the following threats to nuclear security that involve criminals or terrorists acquiring and using for malicious purposes: (a) nuclear weapons; (b) nuclear material to build improvised nuclear explosive devices; and/or (c) radioactive material to cause harm to individuals or the environment, including the construction of radiological dispersal devices (RDDs) and radiological exposure devices (REDs). The list is published in the IAEA Nuclear Security Series, No. 7, “Nuclear Security Culture”, 2008, p. 3-4.
by non-state actors and have ultimately provided much needed incentives for countries to adopt adequate regulations and policies to protect their critical infrastructures. Yet, in spite of some remarkable successes, the current nuclear security regime remains dangerously weak and fragmented at present.

A report recently released by the Nuclear Security Governance Experts Group (NSGEG) claims that:

The current nuclear security regime is not robust, adaptable or coherent enough to adequately protect against the intensifying and evolving threats posed by nuclear terrorism in the 21st century. The governance system for nuclear security is in need of significant improvement in three areas: greater coherence and confirmed effectiveness, enhanced transparency and increased international confidence including through shared assessments of performance and cooperation. The current nuclear security regime has improved over time but this evolution has been too slow and is incomplete. It relies primarily on opaque national structures and voluntary commitments to prevent nuclear and radiological terrorism. While there are a limited number of binding international agreements covering aspects of nuclear security, adherence to them is incomplete, assessing compliance is difficult and they leave significant gaps in the system.5

Several initiatives at various multilateral levels have been launched to address these concerns6 and some of them are already generating promising impact. At the regional level, in parallel to the strengthening of already existing nuclear security institutions, disaster preparedness and risk management organizations (henceforth DPRMOs) are expanding their field of operation to include not only natural disasters but also man-made disasters, including the prevention and possible response to nuclear attacks and accidents. These organizations do not intend to replace nuclear-security mandated institutions but their approach might ultimately help to increase the prospect for enduring, credible and sustainable regional nuclear security cooperation.

This paper seeks to address two interrelated question: 1) in which ways do DPRMOs influence regional nuclear security cooperation and governance? 2) What factors might allow DPRMOs to play an even more explicit role in nuclear security in the future?

The paper argues that because of their unique mandate, DPRMOs can play a fundamental role in fostering the consensus and political will that are indispensable to allow countries to design, develop and enforce a credible nuclear security agenda. Most specifically, DPRMOs help countries

6 For instance, discussions on strengthening the role of the IAEA in nuclear security.
7 This paper defines disaster preparedness and risk management as a process by which an association of states agree to cooperate on reducing the vulnerability of its regional community to hazards. The paper borrows the definition from Simon Hollis, “The Global Standardization of regional disaster risk management”, Cambridge review of international affairs, Vol. 27, NO. 2, 2014, p.321. This can include the full disaster cycle spectrum – preparedness, prevention response and recovery or only some parts of it. A regional disaster preparedness program includes any type of formal agreement within a regional organization that specifically deals with at least one of the four features of the disaster cycle mentioned above.
to acquire individually and collectively the capacities needed to conduct scientific and rigorous security risks and vulnerabilities of their security apparatus. They also establish channels and platforms for information and knowledge-sharing that might be helpful also to advance cooperation in nuclear security. Moreover, they help advance the norm of collective security that poses significant constraints to national sovereignty when the greater good, such as security, is in danger.

The paper argues that thus far nuclear security has been advanced through what might be considered a legalistic approach, through which countries are expected to undertake significant changes in their political, economic and social institutional infrastructures so as to tackle the underlying causes of vulnerability to nuclear terrorism. Although this is a crucially important goal, the current approach does not seem to provide states with the ultimate rationale for underwriting these comprehensive changes within their domestic institutional landscape. In the current approach in fact, the threat of nuclear terrorism and its likelihood is defined a priori by international organizations and powerful players and results and recommendations then trickle down to regional groupings and individual countries. Yet this one-fit-for-all approach fails to acknowledge that countries with different cultures and geographies may operate with vastly different risk thresholds and appreciation of the “urgency” of the threat. In addition, too little is done to generate confidence and trust among countries that would ease the sharing of information and best practices. 

The contingency approach that DPRMOs support instead departs from the fundamental premise that countries will respond to risks and threats with adequate resources only if and when they become aware of their inherent vulnerabilities to such risks. Therefore countries have to be supported in the development of accurate and rigorous risk assessments and in ultimately sharing vulnerabilities and best practices with other countries so as to continue to progress to better and more effective disaster preparedness strategies. Differently from the legalistic approach to nuclear security, DPRMOs operate within a normative framework where people’s security, rather than state security, is the ultimate rationale. Through a rights-based approach framework, DPRMOs maintain the sanctity of national sovereignty, but equally recognize that existing vulnerabilities in one state lowers collective security and as such cooperation through the disclosure of information that might be considered sensible to state security but critical to protect people.

In its conclusive section, this paper argues that the legalistic and contingency approaches to nuclear security are certainly not mutually exclusive, rather they are reinforcing each other in a synergistic fashion.

The paper predominantly examines DPRMOs operating in Southeast Asia although in the conclusive section a few references are made to the experience of the Gulf Countries that, just recently have begun to develop a collective disaster-management system, modeled on the Southeast Asian one. The selection of Southeast Asia is informed by three main factors. Firstly, according to several estimates, the spread of nuclear power in this region will occur at a faster pace and with greater intensity than in other regions. “Getting the approach to nuclear security” right is therefore more compelling, impactful and urgent than in other parts of the world where the diffusion of nuclear energy remains notional, at least at present. Secondly, and related to the previous point, states in Southeast Asia have dealt in the past or continue to deal with terrorist organizations either operating in their territories or in neighboring countries. Although this first-
hand experience should make these countries overall more generally aware of the severity of nuclear terrorism threats, it has also forced countries to be more cautious in fully embracing a nuclear security agenda that has been seen explicitly advanced by the United States. Finally, the region currently struggles with overwhelming development needs, growing population, and rapid political and social changes that frequently overshadows security concerns and lower the political priorities towards nuclear security. Identifying ways in which the development and the security agenda are linked, would ensure more enduring commitment towards nuclear security.

The paper relies, at least in this iteration, on a limited number of case studies due to the fact that these institutions are fairly new and institutional innovation in disaster preparedness is a recent process at least in some regions. In addition, it is important to point out that the paper does not examine the actual efficacy of these organizations in nuclear security but is limited to exploring the role that they play without making any value judgement on how they are actually improving states’ responses on the ground.

The paper is structured as follows: in the first section I provide an overview of the current approach to nuclear security governance and its main shortcomings. The second section explores the features of the contingency approach to nuclear security as it is advanced by DPRMOs. The third section offers an empirical illustration of how nuclear security is “applied” in Southeast Asia. The fourth and final section examines the prospect for the further engagement of DPRMOs in the nuclear security area and argues why the two approaches ought to be integrated in an holistic fashion.

The Legalistic Approach to Nuclear Security: Rationale and Shortcomings

Despite the burgeoning of institutional mechanisms, nuclear security governance continues to be fragile and tentative. Most specifically, the governance of nuclear security at present remains skewed towards the attainment of narrow goals such as securing and protecting fissile material and the design of a more comprehensive strategy to secure the sustainability and coherence of a global nuclear security regime has so far attracted far less political attention. A Stanley Foundation Report succinctly argues that the “essence of the nuclear security challenge is preventing weak links in the international system that can be exploited for malicious purposes. The challenge is to identify and fix these weak links when the international nuclear security system emphasizes national responsibility, has no binding obligations and lacks effective mechanisms for transnational information exchange.”

In this paper, I posit that three main nuclear security governance objectives remain unaddressed within the current approach. They are: 1) to enhance transparency among countries; 2) to reach greater coherence with other actors; and 3) to increase international confidence through shared assessments of threats and performance. These goals are explained in turn below.

---

8 It is not the focus of the paper to discuss in depth why the advancement of a global nuclear security architecture has been met with deep controversy. However, it is important to note that some of these controversies are more related to broader issues that include unresolved ideological clashes over nonproliferation and disarmament obligations, the inevitable concern of states for their national sovereignty and the fear that institutional innovation triggers particularly in a domain like the nuclear that is closely seen as a national security area.

To enhance transparency: By definition, security systems have to be private and protected in order to be effective, yet the high level of secrecy and almost complete lack of transparency that today characterized the field of nuclear security need not remain standard. Matthew Bunn at Harvard argues that: “all states should regularly publish information about their nuclear security requirements and approaches and the means they use to assure effective performance”10. Yet, such a scenario is difficult to create, particularly in regions and areas of the world that are characterized by deep mistrust and where the state-logics of secrecy becomes a fundamental premise of national security. Even in more normal circumstances, where regional competition is not acute, countries refrain from disclosing information particularly related to existing vulnerabilities in their security apparatus and hesitate to request assistance from other countries to avoid high reputational costs that may trigger unexpected consequences. Sharing vulnerabilities might result in a loss of international prestige and credibility of the country and such a loss ultimately may affect the global standing of the country also in other areas, such as trade, finance and high-technology manufacturing. Yet, the vicious cycle of nuclear security secrecy ultimately affects global security in more dramatic ways. The almost complete absence of information sharing mechanisms and collective thinking platforms where countries can exchange best practices and lessons learned deepens mistrust among countries and ultimately worsens the prospects for cooperation and lowers the ability of countries, especially smaller and less developed ones, to develop a credible nuclear security infrastructure. This continues to perpetuate the existence (and worsening) of weak links within the global nuclear security system that ultimately affect everyone’s security.

To reach greater coherence with other actors: while the protection of nuclear infrastructure is an important objective, the acquisition of fissile material is the most obvious path to the creation of a terrorist improvised nuclear device11. Therefore, borders and export control policies are the cornerstone to a credible nuclear security strategy. Within the current approach, the establishment, maintenance and strengthening of border and export control policies remain solely with the state and its domestic jurisdiction. Nevertheless, it is widely acknowledged that national policies by themselves are necessary but not sufficient instruments to mitigate and respond to the threats to nuclear security. Multilateral cooperation, particularly among neighboring countries and at the regional level, ought to be seen as indispensable to generate the necessary political will and trust for such policies to come about. If regional cooperation is strong both from a security and an economic standpoint, countries might be more inclined to cooperate further on border controls and on export control policies. Yet it has to be noted that thus far, the International Atomic Energy Agency and other nuclear security organizations have not favored a regional approach to nuclear security. Most states continue to pursue cooperation with the IAEA at the national level and disparities in technological advancements and nuclear security goals make a collective approach more burdensome and lengthy.

To increase international confidence through shared assessments of threats and performance: All main international conventions, agreements and institutions as well as the national security

strategies of individual states\textsuperscript{12} identify the threat of nuclear terrorism as the most urgent, pressing and critical challenge facing the international community today\textsuperscript{13}. However, beyond these statements, little is done on the ground to boost the abilities of countries to properly assess both the threats of nuclear terrorism in their countries and the vulnerabilities of their current security apparatus to such threats. International conventions demand states undertake specific changes in their legislative and regulatory policies but ultimately leave countries full discretion on the scale and magnitude of these institutional changes. For instance, the International Convention for the suppression of acts of nuclear terrorism vaguely commits states to: “taking all practicable measures, including if necessary, adapting their national law to prevent and counter preparations in their respective territories”\textsuperscript{14}. Other similar statements are found in the Amendment to the Convention on the Physical Protection of Nuclear Material and Nuclear facilities where states are expected to “establish, implement and maintain an appropriate physical protection regime applicable to nuclear material and nuclear facilities under its jurisdiction”\textsuperscript{15}. The complete discretion left to states and the absence of credible benchmarks against which to assess risks and threats and appropriate actions that need to be taken against these identified threats ultimately undermine the credibility of nuclear security systems instead of fostering an environment of international confidence. The absence of scientific assessments of the actual threat also leaves open the possibility of “politicizing” nuclear security. Illustrative of the skeptical approach to the actual threat posed by nuclear terrorism has been the statement released by the Head of the Malaysia delegation during the 2009 IAEA General Conference that well captured the concerns among emerging powers, “against the disproportionate focus on perceived threats to nuclear security that could result in unjustifiable denials of nuclear technology”\textsuperscript{16}.

These goals are not technical but rather political and in order to achieve them, there is the need for a vision of a political pathway to establish a global nuclear security regime. The report from the Stanley Foundation precisely echoes such point and states that “The central technical and consensus building roles of the IAEA appeal to many nations and will remain part of a strengthened and integrated nuclear security regime. But a multilateral political track on which governments

\textsuperscript{12} The 2010 U.S. Nuclear Posture Review and the 2010 U.S. National Security Strategy both identified nuclear terrorism as the most urgent threat facing the United States. The former document states in its executive summary that: “As President Obama has made clear, today’s most immediate and extreme danger is nuclear terrorism”, U.S. Nuclear Posture Review Report, April 2010, p. IV. The latter document channels the view of President Obama and his administration on the strategic security challenges that the U.S. will be tasked to face in the 21st century. In particular it states that: “The threats to our people, our homeland, and our interests have shifted dramatically in the last 20 years. Competition among states endures, but instead of a single nuclear adversary, the United States is now threatened by the potential spread of nuclear weapons to extremists who may not be deterred from using them”, 2010 U.S. National Security Strategy, May 2010, p. 17.

\textsuperscript{13} The International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT) 2005, states that: “acts of nuclear terrorism may result in the gravest consequences and may pose a threat to international peace and security”; The adoption of the Amendment to the Convention on the Physical Protection of Nuclear Material (2005) is rooted in the widespread concern among states that: “worldwide escalation of acts of terrorism in all its forms and manifestations, and by the threats posed by international terrorism and organized crime”, and the United Nations Resolution 1540 (2004) notes that: “the proliferation of nuclear, chemical and biological weapons, as well as their means of delivery, constitutes a threat to international peace and security”.

\textsuperscript{14} ICSANT, Article 7, Paragraph 1a.

\textsuperscript{15} Amendment to the Convention on the Physical Protection of Nuclear Material (2005), Article 2A, Paragraph 1.

can innovate and take initiative alone or in groups is valuable and should be maintained”\textsuperscript{17}. In addition, this architecture has to be sustainable. “It is not enough for effective nuclear security to be achieved at one particular moment; nuclear security has to be maintained and continually improved for decades to come”\textsuperscript{18}.

**The Contingent Approach to Nuclear Security: What DPRMOs can do to help improve the development of a global Nuclear Security Regime?**

The central argument of the paper is that the flourishing of DPRMOs and their expansion into the area of man-made disasters might help address some of the weaknesses that the current approach to nuclear security displays in two ways: by formulating and promoting a holistic understanding of collective security and trans-boundary security risks and by strengthening state capacities to assess risks and vulnerabilities in an objective, scientific and rigorous fashion. I note that DPRMOs do not, at least for now, have a direct mandate to address risks related to nuclear terrorism and their mandate on man-made disaster is vaguely defined at this stage. Nor are these organizations encouraging the adoption of any specific legislation or regulatory policies that might prompt immediate change on the current nuclear security governance landscape. However, what I suggest is that indirectly through their focus on disaster preparedness and risk management, DPRMOs are contributing to the creation of the conditions that will be indispensible for the establishment of a comprehensive, coherent and sustainable global nuclear security regime.

The previous section identified three main goals\textsuperscript{19} whose achievement might be critical to ensure the development of a comprehensive\textsuperscript{20}, coherent and sustainable global nuclear security regime. In this section I will explain how the approach that DPRMOs have adopted might be useful to achieve at least in part these goals.

The rationale underpinning the existence of DPRMOs resides in what has been called the “humanitarian ethics of care”\textsuperscript{21}, that means that the purpose, mandate and responsibilities of these organizations is ultimately to respond to disasters and to manage risks so as to reduce the loss of lives\textsuperscript{22}. The humanitarian approach on which DPRMOs are premised might play a particular role in encouraging states to disclose information and to share lessons learned and best practices, even when sharing might not be in their national security interest. As I have argued previously, in the conventional approach to nuclear security, the emphasis is on state security and as such the sharing and disclosing of information on vulnerabilities and risks are consistently assessed and evaluated against other concurrent national security considerations. The framework espoused by DPRMOs

\textsuperscript{17} NSGEG. *Preventing weak links in nuclear security: a strategy for soft and hard governance*, Summary Report & Initial policy recommendations, March 2014, p. 10.


\textsuperscript{19} They are: 1) to enhance transparency among countries; 2) to reach greater coherence with other actors; and 3) to increase international confidence through shared assessments of threats and performance.

\textsuperscript{20} By comprehensive nuclear security regime I mean a global nuclear security regime that is not only interested in securing fissile material or enforcing border and export control regulations but that also encompasses mechanisms to continue to nurture the existence of a nuclear security culture whose definition is provided at p. 6, footnote #13.


\textsuperscript{22} The ASEAN Agreement on disaster management and emergency response (AADMEER) states that its primary objective is “to provide effective mechanisms to achieve sustainable reduction of disaster losses in lives and in social economic and environmental assets of the parties”, AADMEER, Article 2, Objective 2, 2005 p. 5.
instead shifts the center of gravity from state security to people security and right to life, subordinating national security policies to the fulfillment of humanitarian obligations. In the conventional approach, a state with vulnerabilities in its nuclear security apparatus is considered a weak link and a security problem within the international system. In the DPRMOs framework, which revolves around state and international efforts, the vulnerability of a state is seen as a collective humanitarian liability that ought to be disclosed. To appreciate the difference between these two approaches, it is helpful to compare the language used in crafting the main conventions and agreements.

In UN Resolution 1540, the responsibility is exclusively on the state. Cooperation is framed as something desirable, but which takes place in ad-hoc circumstances. For example, Article 7 of the Resolution mentions the possibility of cooperation and states that as “…some States may require assistance in implementing the provisions of this resolution within their territories, …invites States in a position to do so to offer assistance as appropriate in response to specific requests to the States lacking the legal and regulatory infrastructure, implementation experience and/or resources for fulfilling the above provisions”\(^\text{23}\).

Similarly other nuclear security conventions at the global and regional level all emphasize nuclear security as a national responsibility. For instance, the ASEAN Convention on Counter Terrorism emphasizes the national role:

Article III:
The Parties shall carry out their obligations under this Convention in a manner consistent with the principles of sovereign equality and territorial integrity of States and that of noninterference in the internal affairs of other Parties.

Article IV:
Preservation of Sovereignty Nothing in this Convention entitles a Party to undertake, in the territory of another Party, the exercise of jurisdiction or performance of functions which are exclusively reserved for the authorities of that other Party by its domestic laws.\(^\text{24}\)

Yet the language used in the ASEAN Agreement on Disaster Management and Emergency Response significantly shifts the emphasis from national to collective responsibility. Article 3, Principle 1 states that: “the sovereignty, territorial integrity and national unity of the parties shall be respected in accordance with the charter of the United Nations” and Article 3, principle 3 states that “the parties to the agreement shall in the spirit of solidarity and partnerships and in accordance with their respective needs capabilities and situations strengthen cooperation and coordination to achieve the objectives of the agreement”. Most importantly, Articles 4a and 4b clearly define disaster management as a collective responsibility whereby “the parties shall cooperate in developing and implementing measures to reduce disaster losses including identification of disaster risk, development of monitoring, assessment and early warning systems” and “respond


\(^{24}\) ASEAN Convention on Counter Terrorism (ACCT), 2007.
promptly to a request for relevant information sought by a member state or states”\(^{25}\). The change is related to the particular reading of national sovereignty that the disaster approach advances. On the one hand, this approach continues to bolster state-based responsibility but it leaves open the possibility of this intervention to fail and allows for extra space for other actors and international players to intervene\(^{26}\).

Secondly, and connected to this previous point, DPRMOs can help groupings of states to reach greater coherence in their collective security policies, including border control and emergency response strategies. The emphasis is on adopting Standard Operating Procedures\(^{27}\) that might facilitate humanitarian interventions and disaster-relief operations and in the conduction of periodic simulation exercises. The context in which DPRMOs operate is different from the context of nuclear security. Nonetheless, by helping to build regional infrastructure through strengthening information sharing, collaboration, and collective training, DPRMOs are helping to increase the likelihood that such infrastructures will be later on also used for other non-emergency priorities like the governance of nuclear security and the development of more harmonized procedures’ for borders control.

Finally and perhaps most importantly, DPRMOs can help states develop strong mechanisms and instruments through which to assess both risks and the vulnerabilities of their system to these identified risks. DPRMOs help this process in at least two ways: they “de-politicize” risks and they provide a rigorous methodology for risk assessment.

The current approach to nuclear security, as explained in earlier sections of the paper, defines nuclear terrorism as a grave and serious threat whose gravity is defined and articulated in a top-down approach by international organizations and by powerful states.

In the conventional approach to nuclear security, the threat of nuclear terrorism is established \textit{a priori} and as such it becomes both a source of controversy and a reason for complacency. First, several countries have resented the top-down approach embedded in several nuclear security conventions whereby the threat is articulated as objective – the threat exists and its lethality is immense - and defined in static terms – nuclear terrorism will always exist, therefore protection will always be required. This formulation has helped the creation of coalitions of like-minded countries and the identification of a check-list of instruments and tools to fight the threat, but has not brought much support from countries that understand threats as evolving complex challenges tied to cultural and identify factors more than just to the presence of non-state actors on a territory. Secondly and most importantly, the current approach does not effectively help countries develop risk assessment capacities on which ultimately their nuclear security culture will have to be premised. The current approach requires states to adopt specific legislation but does not establish a sustainable system through which states continue to maintain and upgrade their security systems based on the evolution of the threat itself.

\(^{25}\) ASEAN Agreement on disaster management and emergency response, Article 3 and Article 4
\(^{27}\) ASEAN Agreement on disaster management and emergency response, Article 8(2).
The DPRMOs’ framework instead helps countries to develop threats assessments on which their risk response will be ultimately designed. Because the risk-management system is both a national and a collective responsibility (as illustrated below), countries have to conduct objective, comprehensive and scientifically sound assessments of their security system. The DPRMOs’ approach encourages states to make use of scientific data and to develop a cadre of trained experts capable of producing and interpreting those data. Ulrich Beck has argued that: “Dangers do not exist in themselves. Independently of our perceptions. They become a political issue only when everyone becomes aware of them. They are the products of social stagings which are strategically defined, cover up and dramatized with the idea of scientific material.”28. The use of scientific material and data also legitimize the state’s decision to adopt unpopular but needed reforms in order to address and continue to respond to these risks. The risk-prevention infrastructure that DPRMOs supports is therefore far more extensive and effective than the one on which nuclear security is currently relying upon.

The Southeast Asia Experience

This section provides an overview of how the theoretical discussions illustrated above translate into actual policies on the ground, particularly in the context of Southeast Asia, a region with a mixed record of accomplishments and failures in the realm of nuclear security. The challenges that the region has faced and continues to confront have made the establishment of a regional nuclear regime particularly difficult to achieve. Yet because of the rapid spread of nuclear power in the region and the active presence of terrorist organizations, strengthening nuclear security in Southeast Asia remains a compelling global priority. A report from the James Martin Center for Nonproliferation studies eloquently illustrates the urgency of the problem in the following manner: “Due to the increased flow of nuclear material and radioactive sources in the region, the development of robust nuclear security capabilities in Southeast Asia is critical. Among the key challenges for nuclear security in the region are the high level of terrorist activity, the weak maritime security, insufficient border and export controls and scarcity of adequately trained and supported human resources”29.

In addition, the high level of terrorist activity in the region has attracted intense international scrutiny. The U.S. policy-makers and media in particular have frequently cast the region as ‘the second front in the global war on terror’30, a title that countries throughout the region, particularly powerful countries like Indonesia and Malaysia, still resent to this date and which has led to the

30 Amitav Acharya, “Terrorism and Security In Asia: Redefining Regional Orders?,” Asia Research Centre, Working Paper, No. 113, 2004, p. 2. For instance, in 2003, the U.S. Congress commissioned a report in which it was noted with apprehension, ‘Southeast Asia with its combination of large Muslim populations: dissident and separatist movements; porous borders and easy transnational communication, under-resourced intelligence services … is a fertile breeding ground for terrorist operations’ in M. Manyin, “Terrorism in Southeast Asia,” Congressional Research Service Report for U.S. Congress, updated November 18, 2003. This was followed by a congressional hearing in 2004 in which the U.S. Assistant Secretary of State for East Asia and Pacific Affairs, James Kelly, explicitly stated: ‘this is a time of transition in Southeast Asia, and at the top of our policy priorities is waging the war against terrorism’ James Kelly, Testimony before the United States House of Representatives, International Relations Committee, June 2004.
adoption of more defensive postures against the pressure of global institutions and external powers to undertake much needed institutional and governance reforms.

Given the porous regional borders and evident vulnerabilities in the security systems of many regional countries, the United States considered it its highest priority to engage intensively with the region and its member-states to enhance the regional defense infrastructures. To do so, the U.S. pursued and consolidated military partnerships with traditional allies such as the Philippines and Singapore and lobbied ASEAN to create credible mechanisms directly oriented towards the fight against terrorism. Yet because of the open opposition of a few states of the region, ASEAN at least initially, delivered non-binding conventions and declarations that while dealing with terrorism-related issues at large, maintained the sanctity of the principle of non-interference as the basis of ASEAN inter-state relations.

Over time, after an initial phase of rejection and resentment, states in the region have become more amenable and supportive to the idea of establishing cooperation on regional nuclear security. For instance, the successful formulation and adoption of the ASEAN Convention on Counter Terrorism (2007) which is binding and entered into force in 2011 thanks to the leadership of Singapore and the signature of six ASEAN countries marked a clear departure from the “ASEAN way” and signal the mounting political consensus among ASEAN countries to tackle the problem of nuclear terrorism more explicitly. And although it does not directly cite UN Resolution 1540, the Convention makes reference to it when it declares the willingness of ASEAN to cooperate ‘to prevent the movement of terrorists or terrorist groups by effective border control … enhance intelligence exchange and sharing of information and enhance existing cooperation towards developing regional databases under the purview of the relevant ASEAN bodies’.

The adoption of the legally binding ASEAN Convention on Counter Terrorism certainly constitutes a landmark step in developing a credible nuclear security infrastructure but such an instrument in and of itself is not sufficient to drive further and much needed changes. Furthermore,

---

31 In January 2002, the U.S. administration formed the Joint Special Operations Task Force-Philippines to help the country fight transnational and domestic terrorists. One operation led to the deployment of 660 U.S. marines in the Southern Philippines to fight against the terrorist group Abu Sayyaf. Data related to Philippines-U.S. cooperation in the ‘war on terror’ can be found in James Putzel, Political Islam in Southeast Asia and the U.S-Philippines alliance, in Mary Buckley, and Rick Fawn, Global Responses to Terrorism: 9/11, Afghanistan and Beyond, (London: Routledge, 2003).

32 For instance, the ASEAN Declaration on Joint Action to Counter-Terrorism, issued in 2001 immediately after 9/11, condemned ‘acts of terrorism in all its forms and manifestations … as a profound threat to international peace and security … which require concerted action.’ Yet it goes on to say that ‘all cooperative efforts to combat terrorism at the regional level shall consider joint practical counter-terrorism measures in line with specific circumstances in the region and in each member country’, 2001 ASEAN Declaration on Joint Action to Counter Terrorism, Bandar Seri Begawan, 5 November 2001 available at: www.aseansec.org/5620.htm.

33 The ACCT was ratified by Brunei, Cambodia, Philippines, Singapore, Thailand and Vietnam and entered into force in 2011.

34 The Convention deals with the problem of terrorism at large, however has important repercussions for regional nuclear governance, in that it refers to the need for ASEAN member states to ‘….strengthen capability and readiness to deal with chemical, biological, radiological, nuclear (CBRN) terrorism, cyber terrorism and any new forms of terrorism’; ASEAN declaration on Joint Action to Counter Terrorism, Article VI, 2001, Bandar Seri Begawan, 5 November 2001 available at: www.aseansec.org/5620.htm (last accessed on 30 July 2012).
intra-regional commitment towards more extensive and substantive institutional reforms\(^35\) continues to be subordinated to other development priorities and progress in formulating and enforcing nuclear security policies and regulations is highly uneven across the region. According to a recent report on the state of nuclear security in Southeast Asia, “countries in the region remain deficient in areas of strategic trade management, equipping the borders to prevent illicit trafficking of nuclear and radioactive materials, training specialists and ensuring adequate and sustainable financing of related activity”\(^36\). In addition, closer cooperation on security matters in ASEAN has been somewhat hampered by continued territorial disputes among various members states. Most recently Thai and Cambodian forces clashed on their shared borders in February 2011. Compounding this, “ASEAN” Secretariat is significantly understaffed and nuclear security is not a priority for officials working on wider security issues. As with any international organization, ASEAN’s agenda is set by its member-states and the secretariat cannot work on issues that are not put forth or prioritized by the members”\(^37\).

For this reason, advancements to nuclear security continue to be promoted and lobbied for mostly by external players such as the European Union (through its Centers of Excellence), the United States and the IAEA, actors in other words that are detached from intra-regional power-skirmishes dynamics. Yet the sustainability of nuclear security policies might be in grave jeopardy if local ownership of such policies is not properly fostered and enhanced.

Whereas the nuclear security regime at the regional level remains unsatisfactory, institutional impetus in the region exists in the field of disaster preparedness and prevention where ASEAN has been, together with Europe, the first regional grouping to adopt a first ever-binding regional agreement for disaster relief.

The region is not new to natural disasters\(^38\) and therefore a culture of disaster preparedness and collective cooperation for relief and preparedness has begun to emerge in conjecture with the process of regional integration. In fact, the first attempt to establish the first collective infrastructure for disaster preparedness was made in 1971, when ASEAN established the ASEAN Experts Group on Disaster Management (AEGDM) which was created to “enhance cooperation in disaster management in order to minimize the adverse consequences of disasters on the economic and social development of ASEAN member countries”\(^39\). Nonetheless this group met only once

\(^{35}\) Several countries in Southeast Asia continue to oppose the adoption of a regional export control regulations and external donors, such as the EU, work exclusively with individual states to help to formulate appropriate policies. In addition protection of critical maritime routes continues to be a challenge due to weak governance capacities and the increased level of piracy activities. Yet little has been done at the regional level to address these challenges.


\(^{38}\) Angela Pennisi di Floristella argues that “Southeast Asia is one of the world’s most vulnerable regions to suffer from a range of natural disasters. Over the last years, earthquakes, typhoons, the rise of the sea level, volcanic eruptions, droughts, heat waves and tsunamis are becoming more frequent and severe” in Angela Pennisi di Floristella, ‘Dealing with Natural Disasters,” *The Pacific Review*, 2015, p. 1-2.

every two years and had no independent resources and no enforcement mechanisms. Other institutions were then created in the 1990s to strengthen regional dialogue and information sharing but it was only in 2000 when AEGDM was elevated to the ASEAN Senior Officials Meeting on Disaster Management that it acquired more political status within the regional governance architecture and some additional power to approve guidelines and standards of conduct among countries to strengthen national disaster response policies. The development of a regional disaster infrastructure was also prompted by the widening and deepening of the process of regional integration that occurred particularly in 2003 with the adoption of the Bali Concord. The agreement fully embraces the concept of comprehensive security and “recognized that more intra-regional cooperation is needed to handle concerns that are trans-boundary in nature and therefore shall be addressed regionally in a holistic integrated and comprehensive manner”40. Finally in 2005, ASEAN adopted the ASEAN Agreement on Disaster Management and Emergency Response (AADMER). In most recent years, with the evolution of the project for an ASEAN community, new impetus has been generated to strengthen the collective commitment to disaster preparedness and response through the creation of an ASEAN Humanitarian Center which was later created in 2011.

The development of this institutional architecture to cope with disasters has brought some important institutional innovation in the overall regional governance of the ASEAN region and these innovations have important repercussions also on the way in which ASEAN approaches and deals with nuclear security obligations. At least three significant changes in the “ASEAN traditional governance modus operandi” have been brought about by the development of a regional disaster management approach: 1) the development of a more consolidated and effective mechanism for sharing information; 2) critical shift in ASEAN attitude from reactive to proactive governance; and 3) the strengthening of the norm of collective security.

Firstly, unlike the current regional nuclear security infrastructure, which does not openly facilitate the sharing of sensitive information and best practices among countries, the ASEAN approach to disaster response heavily relies on the gathering of timely information and the continuous communication among member-states. For instance, the ASEAN Coordinating Center for Humanitarian Assistance on Disaster Management created in 2011 runs offices in each single Southeast Asia country and conducts risks assessments on a daily basis that are then made available to all member-states. In return, each state is required to contribute and cooperate to the continuous collection and update of data and the immediate disclose of information that might be considered critical for collective security.

Secondly, the establishment of a regional disaster-management infrastructure has prompted changes in the regional ASEAN towards disasters, threats and vulnerabilities. These change in the mindset and the institutional culture within ASEAN are only at the early stage but they are nonetheless very promising also for the governance of other sectors. According to the ASEAN Agreement on Disaster Management and Emergency Response (AADMER), each state has to allocate specific resources, both human and financial, towards the conduction of risk assessment and the continuous evaluation of vulnerabilities within member-states security and disaster

response systems. Most specifically, AADMER has released guidelines and interoperable protocols for identifying disaster risks in each member-states, for coordinating the collection, storage and analysis of risk data and for formulating plans for dissemination of regional risk information and assessment. The attention to risk and risk assessment has also led ASEAN to devote significant resources to deliver training at the national and at the regional level to ensure enduring commitment to risk prevention and disaster preparedness and this overall has begun to generate a proactive culture of prevention that was not present in the past. The Head of ASEAN Disaster Management Adelina Jamal noted that: “one of the main lessons learned to be learned from experience of disasters is the need to be prepared for the unthinkable”\(^\text{41}\). This shift in mentality and the orientation towards more proactive prevention policies will trickle down to other sectors and will prove to be particularly helpful also in the realm of nuclear security.

Finally, a veritable normative shift has begun to emerge in parallel with the formation of an ASEAN approach to Disaster Management. This normative shift is underpinned by the norm of collective security that has to be ensured also at the expenses of national sovereignty. It was noted earlier that in the field of disaster management, ASEAN has discontinued its usual consensual approach to regional governance and opted for hard-governance. AADMER is a binding treaty that enlists specific obligations and commitments to adhering member-states and the extent to which AADMER exercises a level of authority over member-states goes way beyond other treaties. In order to fully appreciate the normative shift that AADMER embeds in Southeast Asia regional governance, a comparison with the ASEAN Convention on Counter Terrorism (ACCT), also binding, is in order.

ACCT espouses a soft-governance approach. The convention claims that it simply “shall provide a framework for regional cooperation”\(^\text{42}\) and includes a long list of areas for cooperation, without ever referring to specific actions that states are required to take in order to fully comply with the treaty. In addition, articles II-III-IV-V and VII all provide the constraints and the limits of the convention by reinforcing the principle of sovereignty and non-interference.

Conversely, the language used in the drafting of AADMER is more authoritative over the compliance responsibilities of states and certainly is less defensive of national sovereignty. For instance, it has been noted already at p. 9 that at Article III, AADMER reinforces the importance of territorial integrity and national unity: nonetheless, it asserts that “each affected party shall have the primary responsibility to respond to disaster occurring within its territory and external assistance or offers of assistance shall only be provided upon the requires or with the consent of the affected Party”\(^\text{43}\). The choice of the word “primary” implies that sovereignty remains an indispensable yet not the only necessary pillar to ensure collective security in disaster management. In addition, as previously noted, AADMER assigns clear action responsibilities to states. For instance, the agreement requires states “to establish, maintain and periodically review national disaster early warning systems” and to “identify disaster risks” and to “communicate the information to the ASEAN coordinating center for humanitarian center”.

\(^{42}\) ASEAN Convention on Counter Terrorism, 2007, Article II.
\(^{43}\) The ASEAN Agreement on Disaster Management and Emergency Response, 2005, Article III.
Although the treaty does not – at least at present – envisage any specific sanction mechanism for countries that fail to perform at the level requested by the agreement, the tone and approach of the agreement constitute an indisputable step towards hard-governance and more effective approach to regional governance.

**Some Conclusive Thoughts on Factors influencing the Role of DPRMOs in the Nuclear Security Domain**

Based on the example from Southeast Asia, the paper has argued that DPRMOs are bearing important consequences for the strengthening of the nuclear security system. Currently their impact is more indirect, through the establishment of systems of early warning, risk assessment and coordination processes that might eventually facilitate and ease the process of regional nuclear security governance.

However, in the near future, DPRMOs themselves might take on a more explicit role in nuclear security directly. Three main factors might facilitate the expansion of their role in this domain: the deepening of the regional integration process, the expanding support that these organizations will receive from the U.S. and other important players; and the record of accomplishments and successes that these organizations will establish and that will provide the basis of the credibility and legitimacy of their operation in other areas.

First and foremost, it is important to note that creation of DPRMOs is a process closely related to the deepening of regional integration and as such it is easy to envisage that the further evolution of regional cooperation will lead to an expansion of these DPRMOs to other sectors. Ultimately, the very existence of this kind of organization signals that regional groupings have embraced a new expanded understanding of security as a collective and non-traditional endeavor and as such they represent an important landmark in regional governance. The system of data gathering, collective and peer-review monitoring and daily information-sharing, if successful, will advance mutual trust and confidence among countries which will then allow for the expansion of regional governance in other domain including the collective protection of critical facilities. The second factor that might play a role in the enlargement of DPRMOs mandate on nuclear security is the support that these organizations are receiving and will continue to enjoy from powerful countries like the United States and the European Union. It is important to note that many of the regional disaster-management mechanisms came about because of indigenous leadership within regional groupings. This means that these systems enjoy high legitimacy and support among many member-states, but the capacities and the resources these organizations rely on are frequently provided by external actors, and by the U.S. and the EU in particular. Given the slow progress that regional nuclear security institutions are making, it is likely that these actors will eventually invest more resources in DPRMOs to compensate for the poor performance of more conventional nuclear security organizations. Some precedence in this regard has already taken place. For instance in 2004, the United States Command in the Gulf Region hosted a workshop entitled Combating Terrorism and Enhancing Regional Stability and Security Through Disaster Preparedness. The workshop main goal was to strengthen regional capacities to respond to potential man-made disasters, and most explicitly nuclear terrorist attacks. Nonetheless, another underpinning rationale for using this disaster-preparedness approach was to foster a broader discussion about establishing an enduring and credible collective defense system in the Gulf Region. As previously discussed
the “humanitarian ethics of care”\textsuperscript{44} on which DPRMO existence is premised provide the necessary legitimacy to advance more politically challenging conversations such as collective defense and security policies\textsuperscript{45}.

Finally, there is little doubt that the most important factor that will likely determine whether DPRMOs will take on an expanded mandate is the power of their demonstration effect, that is, the record of accomplishments and successes they will acquire and able to display in the area of disaster relief, early warning and risk prevention.

Ultimately DRMOs will not replace more explicitly focused nuclear security institutions. Disaster relief organizations might complement and reinforce these institutions by helping developing indicators for early warning systems and mechanisms for the sharing among countries of sensitive information but they will not be equipped to provide any of the technical and political supports that nuclear security institutions bring. The paper opened with the argument that the conventional approach to nuclear security by itself remains unsatisfactory. The disaster-approach to nuclear security could potentially complement the conventional approach but should never be seen as alternative for at least two reasons. Firstly, the “disaster approach” to nuclear security does not offer a long-term approach to the governance of nuclear infrastructures.

It is a functional approach to monitor risks in the medium and short-term but it does not offer a forward-looking perspective on the risks that might be generated through the evolution of nuclear technology and the spread of nuclear power around the world. Secondly, and related to the first point, this approach does not aim to solve the root-causes that make systems more vulnerable to nuclear terrorism in the first place. A disaster preparedness approach to nuclear security considers and tackles the immediate roots of vulnerabilities but ultimately leaves unturned the very political economic and social structures that led to the vulnerabilities in the first place. This means that through this approach we might be able to mitigate and tame vulnerabilities in the short term but not fully address it.

The two approaches have to be integrated in a holistic manner and must not be framed as mutually exclusive. But the establishment of regional disaster management systems bring new opportunities for institutional innovation and political momentum for further regional governance that if seized correctly, might ultimately strengthen regional nuclear security infrastructures and influence positively the establishment of a sustainable global nuclear security regime.


\textsuperscript{45} At the workshop on workshop entitled Combating Terrorism and Enhancing Regional Stability and Security Through Disaster Preparedness, Colonel Hazza’a Mubarak Al Hajri, GCC Assistant Secretary For Security Affairs went on record to say that: “the responsibility for handling emergency situations is a shared and comprehensive responsibility that cannot be undertaken by any of the GCC countries alone – it is the responsibility of all the GCC countries. This is what we are all looking forward to through this meeting, in order to achieve the wishes, aspirations and goals of our leaders and of our people”. The statement is reported in the Center for Strategic Leadership Issue paper, November 2004, Volume 01-05.