



PERSPECTIVES
on the evolving
NUCLEAR
ORDER

editors

TOBY DALTON

TOGZHAN KASSENOVA

LAURYN WILLIAMS





CARNEGIE
ENDOWMENT FOR
INTERNATIONAL PEACE

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SUMMARY

THE GLOBAL NUCLEAR ORDER appears increasingly tense, primarily because many states feel that the structure and distribution of benefits is unjust. Among the states that will determine how the nuclear order will adapt, Argentina, Brazil, China, India, and Pakistan are particularly important.

These states occupy an uncomfortable middle ground in the order. Each possesses advanced nuclear technology, and three of them hold nuclear weapons. Unlike other states that seek to fundamentally change the existing system, these states would like to improve their standing in the order even though they remain deeply uneasy with its perceived lack of fairness.

THE CURRENT NUCLEAR ORDER

- Criticism of the existing order tends to focus on the lack of progress toward disarmament by countries possessing nuclear weapons. Critics reject incremental arms control measures as an indicator of progress. Many states also disparage growing constraints on access to peaceful nuclear technology, which they believe will impede their economic development.

- The existing order primarily benefits states that developed nuclear technology earliest and wrote most of the rules governing international nuclear affairs. The evolution of the order will likely be driven by middle-ground states that have developed advanced nuclear technology and actively participate in nuclear governance decisionmaking, but whose interests are not completely served by the existing system.
- Thus far, middle-ground states have preferred working within the system to overturning it. Nuclear regimes provide sufficient elasticity for these states to pursue their interests within existing limitations.

PERSPECTIVES FROM THE MIDDLE GROUND

Middle-ground states share more interests than are apparent. Despite obvious differences, including the possession of nuclear weapons by some, middle-ground states share concerns about fairness, access to peaceful nuclear technology, and the growing salience of nuclear weapons in U.S. and Russian security policies.

Regional interests trump global norms. Regional security dynamics and relationships tend to influence these states' nuclear policies more than global norms and a desire to change the order.

Nuclear weapons have declining currency. Despite the rising salience of nuclear weapons in the United States and Russia, middle-ground states tend to consider the possession of advanced nuclear technology and membership in export control groups to be more legitimate symbols of status in the order.

Nuclear policy capacity is underdeveloped. Expert communities in middle-ground states are generally small and diffuse, which hampers their effectiveness in seeking to influence the evolution of the order. Civil society groups and governments in these states could prioritize the development of stronger technical, policy, and legal expertise on nuclear issues.

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INTRODUCTION

TENSIONS IN THE GLOBAL NUCLEAR ORDER ARE RISING. The sources of tension are many, including profound disagreement among states about disarmament and nonproliferation priorities, regional insecurity that both contributes to proliferation concerns and enhances the salience of nuclear deterrence, disenchantment about the lack of progress toward disarmament, and questions about integrating the nuclear outlier states into the order. The 2015 Nuclear Non-Proliferation Treaty (NPT) Review Conference was symptomatic of these tensions. The conference failed to reach a consensus outcome, leading one nongovernmental observer to charge that it was an “accurate reflection of the profound inadequacies and disagreements permeating the global nuclear disarmament regime” and a “necessary shock to an ailing system.”¹

Most contemporary disagreements about nuclear governance stem from the broader struggle for power in the international system as well as the extent to which states view the rules governing international nuclear affairs as just. This policy subsystem is referred to as the nuclear order—broadly defined as an arrangement of states and institutions in the international system based on beliefs about the relationship between nuclear technology and international political power. The existing order, built since the 1950s in and around the United Nations (UN), gives special preference to the early developers of nuclear technology. The dominant global powers at the time—principally the United States and

the Soviet Union—succeeded both in developing nuclear weapons and in negotiating a treaty (the NPT) that legitimized, though conditionally, their possession of those weapons. Ultimately, China, France, Russia, the United Kingdom, and the United States were designated nuclear-weapon states by the treaty, while all of the other countries were classified as non-nuclear-weapon states. The institutionalization of unequal access to nuclear technology, and particularly the possession of nuclear weapons to perpetuate international political power, has contributed to an order that many states consider unjust—albeit

one that has remained mostly stable and free of rampant proliferation.

Argentina, Brazil, China, India, and Pakistan are five states that in different ways occupy an uncomfortable middle ground in the nuclear order.

Many actors have tried to reenvision the nuclear order. These efforts are playing out in various venues, including at the United Nations; at the International Atomic Energy Agency (IAEA); at the UN Conference on Disarmament; at Nuclear Non-Proliferation Treaty Review Conferences; and in the Nuclear Suppliers

Group (NSG), a multilateral export control regime. Not surprisingly, the narratives that are most dominant are those put forward by the groups challenging the status quo and by the architects of the existing order and other states whose interests are served by it.

International nuclear discourse tends to pay less heed to the perspectives of states that occupy an uncomfortable middle ground. These are states who for numerous and varied reasons find the current system discriminatory and unjust and seek to reform it, while at the same time they often try to improve their position in the order in ways that perpetuate the status quo. Given this tension in views, middle-ground states provide an interesting prism through which to assess the nuclear order and the trajectory of efforts to change it.

Argentina, Brazil, China, India, and Pakistan are five states that in different ways occupy this uncomfortable middle ground. Generalizing from any group of states, including this one, is an analytical challenge, but the comparative perspectives that emerge are informative nonetheless. This introductory chapter contextualizes common themes in the nuclear discourse in each of these middle-ground states and their implications for the evolution of the nuclear order.²

As viewed from these middle-ground states, two broad evolutionary forces might produce change in the existing nuclear order. The first is the diffusion of advanced technology, both nuclear and non-nuclear. Many states today operate complex nuclear research

and energy programs, including sensitive fuel-cycle facilities capable of producing enriched uranium or plutonium. Even more possess high-technology industries. Both nuclear and high-technology advancements are viewed as symbols of and contributors to economic growth and development, regardless of their actual correlation with these objectives. Increased availability and supply of these technologies creates the capability for ever more states to build nuclear weapons if they choose to do so. At the same time, states demanding these technologies confront rules for managing trade in dual-use technologies that they perceive as hindering development. The second force comes from states (or groupings of states) that are considered to be rising or emerging powers. These states had little power to shape the regimes governing the development of nuclear technology and the nuclear trade regimes as they were being constructed. Many perceive that the current order does not serve their interests. Today, these states' rising international power permits them to seek to adapt the regimes in ways that better suit their own interests.

To date, the regimes that comprise the nuclear order have sufficiently tolerated these forces and allowed most states in the middle ground to temper their revisionism, even if they are outspoken in their criticism. For the most part, the order has remained stable because these states have preferred the current, if at times unjust, system to the potential insecurity they would confront if the rules were challenged violently or even overturned. This indicates that these states' rhetoric in international forums and their actual behavior are diverging, with their actions tending to reinforce the status quo. Thus, these pressures in the nuclear order may be overstated to the extent that most states continue to uphold the rules even as they challenge them.

This suggests that greater attention should be given to the behavior of members rather than the rules of membership in particular institutions. Participation by non-nuclear-weapon states in groups that more actively challenge the regimes—such as the Humanitarian Initiative, which opposes the possession of nuclear weapons on the grounds that their use would have widespread and indiscriminate consequences for civilian populations—will be an important bellwether. If these countries' involvement in such groups is accompanied by concrete actions, such as purposeful flouting of rules and standard practices, it will indicate that they no longer see the existing order as a provider of sufficiently just outcomes.

RISING SALIENCE OF NUCLEAR WEAPONS

One common theme across middle-ground states pertains to perceptions of the salience of nuclear weapons and the politics of the dominant states in the nuclear order. Recent

events in Syria and Ukraine suggest that Moscow is reinvigorating its reliance on nuclear weapons and deterrence, while U.S. efforts to reverse this trend are primarily inhibited by security commitments to European allies, as well as Japan and South Korea, all of which enjoy protection under the U.S. nuclear umbrella. And though the United States and Russia have reduced their arsenals by more than 80 percent since the Cold War,³ non-nuclear states see the current focus by China, Russia, and the United States on arsenal modernization as an indication that they plan to sustain possession for decades to come.

This, in turn, reinforces perceptions among non-nuclear-weapon states that nuclear-weapon states are ultimately more interested in pursuing arms control or management measures than in eliminating their stockpiles. Indeed, the United States plans to spend nearly \$1 trillion on these efforts over the next few decades, while Russia in 2015 announced the planned addition of new long-range missiles to its arsenal.⁴ Only years removed from the sweeping rhetoric of U.S. President Barack Obama's 2009 Prague speech regarding nuclear disarmament and the negotiation of the 2010 New Strategic Arms Reduction Treaty (START) between Russia and the United States, this trend constitutes a reversal of momentum, as efforts like the Global Zero movement had previously inspired belief that progress on disarmament was possible.

Non-nuclear-weapon states perceive that nuclear-weapon states are ultimately more interested in pursuing arms control or management measures than in eliminating their stockpiles.

Notably, three of these middle-ground states—China, India, and Pakistan—possess nuclear weapons. China occupies an interesting, perhaps transitional, position in the nuclear order insofar as its policies still tend to align with groups that espouse revisionist agendas; yet, it also clearly self-identifies with nuclear-weapon states, benefits from this status, and is taking steps to bolster its position in the order and its own nuclear forces. In this regard, Chinese security policy focuses more on managing rivalry and

potential confrontation with the United States than on the global politics of nuclear weapons. Both India and Pakistan, too, confront a tension between the long-standing dynamics that drive their mutual security competition (nuclear weapons included) and each state's desire to legitimize its position in the nuclear order as a responsible possessor of nuclear weapons. For these states, this tends to result in diplomacy toward the regimes that is wrapped in a veneer of global politics while mostly aimed narrowly at serving national interests.

Whether or not states with nuclear weapons take steps to decrease their salience, the global diffusion of power means that nuclear weapons in 2016 have less currency than previously assumed. Advanced nuclear energy capability and membership in multilateral export control groups and multilateral governance bodies, such as the NSG and the IAEA Board of Governors, are important symbols of status and thus extremely desirable for many middle-ground states. While certainly concerned about global nuclear trends, these states are more motivated by the potential to enhance their own position in the governance institutions that make up the nuclear order than by working toward a more just and fair nuclear order.

DEMISE OF ARMS CONTROL

There is also growing uncertainty among middle-ground states regarding the value of arms control, both as a means to manage and mitigate potential conflict and as part of the disarmament process. Indeed, the perception that the salience of nuclear weapons has increased helps lead revisionist groups to reject the idea that arms control and transparency measures are necessary to make the nuclear order more just. Previously, including as recently as the 2010 NPT Review Conference, groups seeking to change the order exhibited a greater willingness to accept arms control as a measure of progress. But the perceived lack of concrete action by the nuclear-weapon states to fulfill commitments made in the 1995, 2000, and 2010 NPT Review Conferences, and more broadly to uphold their NPT Article VI commitment to enact “effective measures relating to cessation of the nuclear arms race at an early date,” has led more states to challenge the relationship between arms control and disarmament.⁵ States possessing nuclear weapons are unlikely to receive much credit for small transparency and confidence-building measures in the absence of more fundamental actions demonstrating a strong commitment to devaluing nuclear weapons as a step toward disarmament.

At the same time, arms control and mutual restraint mechanisms have lost currency as tools for managing the potential for conflict among both big powers and regional rivals. For example, to date, China has rejected efforts by the United States and Russia to enter into formal arms control discussions, even though China engages in several unofficial dialogues with both states on these issues. In South Asia, there is little apparent prospect of transparency or restraint as a strategy to curb the regional security competition between Pakistan and India. This is even more alarming given that both states’ possession of nuclear weapons may have heightened the risk of subconventional violence that could escalate in ways that test deterrence stability, even as relative parity in nuclear weapons appears to have lowered the risk of major war. Finally, the explosive growth of capabilities

to conduct offensive cyberwarfare among state and nonstate actors raises new concerns about conflict arising from attacks on critical infrastructure, including those related to nuclear energy and nuclear weapons. Certainly, the absence of any normative or institutional framework governing the use of these capabilities poses new risks at a time when building international consensus on restraint is already increasingly difficult.

POLITICAL ECONOMY OF NUCLEAR TECHNOLOGY

Perhaps the strongest point of convergence for the middle-ground states is a shared concern about access to nuclear technology for peaceful purposes and the freedom to share it with others, a right guaranteed by the NPT. Indeed, for all of the diplomatic effort and rhetoric that many of these states tend to expend on nuclear weapons, disarmament, and the lack of progress by the nuclear-weapon states in implementing NPT Article VI, their priority is preserving the right to peaceful nuclear technology. Particularly for developing countries, exercising this right is seen as critical to their economic growth and advancement.

Argentina, Brazil, China, India, and Pakistan all possess advanced nuclear technology as of 2016, but to varying degrees all faced efforts by other states or regimes to deny or withhold such technology in the past. Thus, voicing concerns about technology denial and discrimination may be a remnant of their own experiences, or it may stem from a sense of responsibility for conveying the views of developing nations in general. In

this, perceptions about the discriminatory nature of the nuclear order may in fact be secondary to fears that states in possession of coveted nuclear technology are using nonproliferation policies as a means to deny access to developing countries—despite the lack of available, systematic evidence that the NSG or similar regimes are actively doing so.

Such criticism and concerns notwithstanding, states in the middle ground

also desire a seat at the table in the regimes governing nuclear technology trade, namely the NSG. For them, and for regime outliers, membership in these institutions would give them a voice in future rulemaking.

Concerns about nuclear rulemaking processes help explain the mixed reactions to the 2015 Iran nuclear deal. While states in the middle ground generally celebrate the deal as

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a victory for nonproliferation diplomacy, many (China as one of the negotiators of the Iran deal being an exception) also worry that provisions in the Joint Comprehensive Plan of Action (JCPOA) may be used in a new effort to restrict peaceful nuclear rights. From this perspective, whether Iran developed nuclear weapons or not was critical insofar as it demonstrated that the regime could prevent proliferation, but more worrisome was the narrative that Iran did not have the right to pursue uranium enrichment. Thus, prior to the negotiations, Brazil and others considered the U.S.-led UN Security Council resolutions that imposed sanctions on Iran because of its nuclear program to be an abuse of multilateral institutions. Even so, only UN Security Council Resolution 1929 of 2010 was ever opposed by Brazil and Turkey, and this came shortly after the major powers did not support the two states' joint attempt to negotiate an alternative solution with Iran. After the JCPOA, this concern manifests as a fear that technology holders and rulemakers will seek to further constrain the freedom provided by NPT Article IV to pursue peaceful nuclear technology with autonomy. Thus, for middle-ground states, discussions of strengthening the regime by building on precedents from the JCPOA can sound like yet another effort to restrict access to advanced nuclear technology for states that do not currently possess it.

Though the right to nuclear technology is in the first instance a matter of political economy for these middle-ground states, there is a second, underlying issue: whether flexibility in the regime facilitates or prevents proliferation. Architects of the nuclear order in the West speak of closing loopholes that permit states to develop nuclear-weapon programs using the cover of peaceful nuclear energy endeavors. But others suggest that this elasticity, which allows states to develop advanced nuclear fuel cycles and thus a latent nuclear-weapon capability, is critical to keeping states that otherwise might develop nuclear weapons inside the regime. Ultimately, retaining elasticity in the regime may be critical to sustaining a broader sense of justice.

INCORPORATING OUTLIERS

India and Pakistan never joined the NPT, while Argentina, Brazil, and China were latecomers. As a result, none is in any sense an architect of the current nuclear order.

Interestingly, in considering whether and how to accommodate outsiders, these latecomers tend to be less bound by strict interpretations of the existing rules for membership, even though they espouse universal adherence. It appears there is more openness among this group to debating the incorporation of outliers and less concern about the potentially negative effects on the order. For them, the greater issue is the potential for the

creation of new exceptions or categories of states rather than the reinforcement of the importance of existing nonproliferation commitments and responsible standards of behavior.

The perspectives of India and Pakistan on their potential paths to joining the mainstream nuclear order are quite different and affect how each country perceives its relationship to the nuclear order as a whole. India believes it should be accepted on the merit of its non-proliferation record, its advanced nuclear energy program, and its growing global role. The only desirable path is an exceptional one; Indian leaders harbor the belief that any effort to create universal or comprehensive criteria will fail, for the circumstances and histories of each of the outliers are too different. Pakistan, however, considers the NSG waiver granted to India in 2008 to engage in civil nuclear trade a discriminatory policy and thus argues for a nondiscriminatory approach to membership. The Indian exception was destabilizing to the region and the nuclear order, Pakistanis argue.

The challenge to states considering how to incorporate India and Pakistan is that neither of the outsiders seems willing to take actions that would align its policies, commitments, and practices with other states currently in the mainstream. As the aftermath of the 2008 U.S.-India civil nuclear deal and the NSG exception for India makes clear, the important question to consider is whether the prospect of inclusion is in itself sufficient to incentivize behavior that reinforces norms and commitments central to the nuclear order.

ASSESSING PRIORITIES

Nuclear policy communities in the middle-ground states tend to be small and diffuse. As Argentine and Brazilian analysts have separately noted, their governments expend little energy on foreign affairs, much less on nuclear policy. Though nuclear experts in these countries and others may be vocal, without high-level attention their policy impact is often very constrained. When government officials do become involved, it is foreign affairs ministries and security institutions in particular that shape the nuclear policy discourse. This, in turn, limits the potential for civil society to play a significant role in assisting governments to prioritize among myriad issues, analyze developments and trends, and develop pragmatic policy approaches. The authors of the essays in this report—all of whom are scholars or analysts by profession—underscore the value of increasing the intellectual capacity of the public to engage governments on nuclear issues.

The sense of growing tension in the nuclear order mostly derives from debates and disputes in global forums, such as in NPT Review Conferences or at the IAEA. Though most of the essays highlight these global challenges, the prioritization of issues and policy

recommendations often focus on solutions at the regional or national level. Certainly, as the essays elucidate, some recommendations are targeted at the global level, including encouraging states with nuclear weapons to adopt no-first-use policies and to ban destabilizing practices such as deploying multiple warheads per missile. But, it is also clear that these global recommendations are unlikely to be successful unless and until tensions between regional powers are reduced. In Asia, for example, a trilateral dialogue among China, India, and Pakistan might address instabilities that are driving the increasing salience of nuclear weapons. Brazil and Argentina are already bound by a bilateral nuclear confidence-building framework, yet a path forward likely lies in strengthening their mutual commitment to it.

Despite these challenges, many of the essays are cautiously optimistic that with time and coordinated efforts by governments and civil society, nuclear regimes may begin to evolve in ways that better accommodate the diverse interests of the states they represent.

NOTES

- 1 Cesar Jaramillo, “NPT Review Conference: No Outcome Document Better Than a Weak One,” *Bulletin of the Atomic Scientists*, June 3, 2015, <http://thebulletin.org/npt-review-conference-no-outcome-document-better-weak-one8366>.
- 2 In June 2015, the Carnegie Endowment for International Peace in partnership with the Norwegian Institute of International Affairs convened a workshop with the objective of drawing out comparative perspectives of Argentina, Brazil, China, India, and Pakistan. This report is based on that discussion, which focused on three questions: What are the most significant challenges facing the nuclear order? What are or should be the priorities of each country? And what actions should be recommended to policymakers?
- 3 “Nuclear Notebook: Nuclear Arsenals of the World,” *Bulletin of the Atomic Scientists*, 2016, <http://thebulletin.org/nuclear-notebook-multimedia>; and Donna Miles, “U.S. Declassifies Nuclear Stockpile Details to Promote Transparency,” American Forces Press Service, accessed at United States Department of Defense, May 3, 2010, <http://archive.defense.gov/news/newsarticle.aspx?id=59004>.
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ARGENTINA

ARGENTINA IN A CHANGING NUCLEAR ORDER: AN APPRAISAL

FOR MUCH OF ITS MODERN HISTORY, Argentina has alternatively punched under and over its weight and has struggled to attain a balance between domestic and international responsibilities, on the one hand, and between its Western and Latin American identities, on the other hand. Argentine foreign policy has typically been an instrument of domestic politics, in which rhetorical gestures on the international scene have sometimes yielded short-term domestic gains. The Argentine National Congress has historically played a rather marginal role in foreign policy, and this has reinforced the autonomy of the presidency in designing and executing it. Moreover, an ever more fragmented and denationalized party system has only increased the parochial view of the Argentine political elite. As a result, foreign policy in Argentina has remained almost solely in the domain of the executive and has been fairly dependent on the ideas and preferences of the president and the president's inner circle of trusted advisers. This may explain in part why Argentina's foreign policy may be seen as somewhat erratic or inconsistent across administrations.

And yet, Argentina's history with nuclear affairs has been much more stable than the overall trajectory of its foreign policy. Yes, there have been changes since the 1980s, when the country returned to democracy, but overall, Argentina has developed a bottom-up, consensus-based, incremental approach to the nuclear order. In this light, Argentina's nuclear preferences have evolved from unilateral postures in the 1970s and 1980s toward bilateral and multilateral commitments from the 1990s onward.

Even before Argentina became the first Latin American country to use nuclear energy when its first commercial nuclear power reactor went online in 1974, it defended the right to nuclear development for peaceful purposes. During the 1960s, Argentina took a critical stand against the Nuclear Non-Proliferation Treaty (NPT) and depicted it as

Argentina's nuclear preferences have evolved to focus on lines of dialogue, confidence building, and incremental engagement with the global nuclear order.

the “disarmament of the disarmed,” in the words of José María Ruda, then the Argentine ambassador to the United Nations.¹ Between the 1960s and the 1980s, its nuclear program included unsafe-guarded nuclear facilities for uranium enrichment and plutonium reprocessing, yet Argentina never made the political decision to develop nuclear weapons.

With the return of democracy in 1983, military programs were firmly placed under civilian control. In the 1980s, a rapprochement with Brazil took place, and in 1991, a bilateral framework, the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC), was established to further nuclear cooperation. That same year, Argentina signed the Quadripartite Agreement with the ABACC, Brazil, and the International Atomic Energy Agency (IAEA) on the application of nuclear safeguards. The ABACC framework transformed the nature of Brazil-Argentina relations. In 1993, Argentina joined two multilateral export control regimes—the Australia Group and the Missile Technology Control Regime. A year later, Argentina joined the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco) and the Nuclear Suppliers Group (NSG), a multilateral export control regime, and acceded to the NPT as a non-nuclear-weapon state in 1995. The next year, Argentina became a founding participating state of the Wassenaar Arrangement, a multilateral export control regime focusing on arms and dual-use technology. In sum, Argentina's nuclear preferences have evolved to focus on lines of dialogue, confidence building, and incremental engagement with the global nuclear order.

A number of reasons may explain Argentina's nuclear preferences, but the main rationale so far has been that it sees the benefit of making the existing system work. In the 1990s, Argentina adhered to most of the multilateral nuclear arrangements to signal its overture to the West in general and to the United States in particular. As a result, Argentina abandoned its most controversial projects, including the Condor missile program. This, of course, alienated domestic actors (such as the armed forces and nuclear research agencies) with vested interests in the nuclear sector who voiced nationalist concerns. Ultimately, however, a neoliberal ideology trumped technology.

From 2003 onward—for a number of reasons, including the 2004 energy crisis—Argentina witnessed its own version of a nuclear renaissance and embarked on a number of ambitious programs to upgrade its nuclear profile. This renaissance has taken place mainly through domestic and international institutions and has been subject to bilateral and multilateral safeguards that Argentina accepts as legitimate standards for upholding the nuclear nonproliferation regime. Simply put, Argentina downloaded the software (that is, global regulations) in the 1990s, only to move forward with the hardware (that is, nuclear technology) ten years later. Indeed, Argentina is part of various multilateral arrangements and coalitions of the willing—for example, the Proliferation Security Initiative and the Global Initiative to Combat Nuclear Terrorism—which would hardly seem to be attractive venues for domestic constituencies prone to anti-imperial maneuvers of sorts. Yet, Argentina has realized that it pays to engage with these multilateral instruments as they serve the dual purposes of reducing uncertainty about Argentina’s nuclear preferences and ensuring swift access to resources in order to improve its nuclear standing. Said another way, technology has trumped ideology.

ENSURING THE RIGHT TO PEACEFUL NUCLEAR TECHNOLOGY

Argentina’s priority is to make the regime work to ensure that all recognized non-nuclear-weapon states maintain the right to develop peaceful nuclear programs. Argentina is committed to ensuring a level playing field wherein each NPT member has the right to develop nuclear technology for peaceful purposes. Argentina understands that nuclear technology has a role to play in national development and therefore aims to strengthen its position as a nuclear supplier of know-how, technology, and materials. Thus, Argentina opposes the internationalization of the nuclear fuel cycle as it would deepen the technological divide that already exists among the haves and have-nots of the NPT regime.²

REDUCING THE SALIENCE OF NUCLEAR WEAPONS

Argentina supports a reduced role for nuclear weapons in national security strategies and is fully committed to the goal of nuclear disarmament. Argentina’s nuclear program is firmly oriented toward research and development; it has an entirely civilian outlook and is controlled by a strong, independent nuclear regulatory agency. The scale of its program is rather small, with only three operating nuclear reactors and a share in electricity production of only about 10 percent.³ In 2010, Argentina reactivated its gaseous diffusion

uranium enrichment plant at Pilcaniyeu and started to develop an indigenous technology based on laser enrichment, which is in the proof-of-concept phase as of 2016.⁴ In 2015, then Argentine president Cristina Fernández de Kirchner announced that the country was enriching uranium, albeit in small quantities.⁵

Moreover, Argentina has exported nuclear reactors, radioactive substances (radioisotopes), and nuclear laboratories to a number of countries, including Algeria, Australia, Brazil, Egypt, and Peru. It is also an exporter of the molybdenum-99 radioisotope, widely used in nuclear medicine, and it is the third-largest supplier of the cobalt-60 radioisotope, a radiation source for medical radiotherapy, industrial radiography, and medical equipment sterilization.⁶ Thus, the main focus of Argentina's nuclear program is not nuclear deterrence or power ambitions but energy, research, and development.

AVOIDING RAISING PROLIFERATION CONCERNS

Even taking into account its limitations of scale and investment, Argentina aims to find its niche in the global nuclear marketplace. In this respect, the main challenge for Argentina is to work toward a nonproliferation regime that allows the country to continue its nuclear program without causing proliferation, safety, or security concerns. This challenge has at least five dimensions.

First, Argentina, along with Brazil, is still reluctant to sign the Additional Protocol, which provides the IAEA with greater authority to, among other things, verify the absence of undeclared nuclear activities and facilities. Argentina believes that the protocol imposes further nonproliferation burdens on non-nuclear-weapon states even as the P5 states (China, France, Russia, the United Kingdom, and the United States) continue to possess nuclear arsenals. For Argentina, therefore, the Additional Protocol establishes an

even more unequal nuclear nonproliferation regime. Further, the requirement to adopt the protocol draws a thin line between nonproliferation and development restrictions. The Nuclear Suppliers Group provides a good example. In 2011, 46 members of the NSG amended the group's guidelines for exports of sensitive items to mandate members to require the Additional Protocol in recipient states. Argentina and Brazil opposed

Argentina believes that the Additional Protocol imposes further nonproliferation burdens on non-nuclear-weapon states and establishes an even more unequal nuclear nonproliferation regime.

this mandate and argued that their bilateral safeguards under the ABACC regime could be construed as being equal to the protocol. As a result, in June 2011, the NSG approved revised guidelines for the export of sensitive nuclear technologies and recognized the Quadripartite Agreement as an alternative to the Additional Protocol.⁷

Second, safety has become a more salient issue in the Argentine nuclear sector, and there are signs that this will be a hot topic of discussion in years to come. Indeed, some serious safety problems in Belgium, Japan, and South Korea, among other countries, have led to concerns about the safety of nuclear power stations around the world. These concerns have been, and will continue to be, quite visible in Germany, Switzerland, and other countries with active environmentalist nongovernmental organizations and strong Green parties that influence public opinion on nuclear energy. European divisions over nuclear power have therefore deepened since the 2011 Fukushima disaster, and there is growing polarization about what can be done to continue to ensure safety in nuclear power plants. Argentina is worried about the extreme position presented by Germany and Switzerland (where the governments consider no level of radiation exposure to be safe). In other words, hypersafety will become a contested topic in Argentine diplomacy.⁸

Third, while Argentina's concerns rest more on the economic end of the threat spectrum, proliferation continues to be a challenge that must be addressed. In this sense, Argentina supports the recent P5+1 (plus Germany) nuclear agreement with Iran.⁹ Although it is far from perfect, it was achieved through diplomatic—and not military—means and Iran's right to develop nuclear energy was preserved, something that is important to Argentina from a normative perspective.

Fourth, it is probable that security is the least problematic issue for Argentina. South America is mostly a zone of interstate peace. At the domestic level, there are no fierce ethnic, religious, or subnational challenges that may pose security threats. Moreover, transnational terrorism is mostly absent in the region. Yes, there have always been suspicions regarding the presence of organized crime and terrorist groups such as Hezbollah in South America's triple border, where Argentina, Brazil, and Paraguay meet on the Paraná River, but these threats remain marginal.

Fifth, the bilateral relationship with Brazil needs further dialogue and creative thought. The two countries have taken divergent paths in their respective nuclear diplomacies. Brazil appears to be more reticent to join the various nonproliferation-related groups such as the Wassenaar Arrangement or the Global Initiative to Combat Nuclear Terrorism. In Brasília, there are more domestic voices critical of the NPT than in the mid-2000s, and the probability of Brazil signing the Additional Protocol remains quite low. Argentina seems to have taken a more pragmatic approach. Mauricio Macri, who

assumed office as the Argentine president in December 2015, will have to decide whether the country is ready to take the next step and sign the Additional Protocol—with or without Brazil.

MAINTAINING THE GLOBAL STATUS QUO

Argentina's priorities are more domestically than internationally focused. In 2009, the government issued the Nuclear Activity Law, which declared the country's nuclear industry a matter of national interest. In 2014, Argentina completed its third nuclear power reactor, Atucha II, which in June of that year reached its first criticality. The government's goal is for nuclear power to grow and reach a share of 15 to 18 percent in the country's energy mix.¹⁰ In 2012, Argentina agreed with the China National Nuclear Corporation to build a fourth nuclear plant, a pressurized heavy-water reactor that would be financed by China. This agreement includes the transfer of fuel fabrication and other technologies. In 2014, Argentina and China signed another agreement for a fifth nuclear plant, the ACP1000, based on a light-water design using enriched uranium. In April 2015, Argentina and Russia signed a framework for cooperation on the construction of a sixth nuclear power plant with Russian financing. Lastly, Argentina has stepped into the business of building small modular reactors with the aim of providing a flexible, cost-effective energy alternative in hard-to-reach locations. The indigenous design, CAREM (Argentine Power Station of Modular Elements), is a simplified pressurized-water reactor intended to provide an electrical output of 100 megawatts or less. The fuel is uranium oxide with uranium-235 enriched to 3.4 percent.¹¹

Argentina is willing to engage in the global discussion and to commit to the adoption of high standards related to safeguards, security, and safety.

For all these domestic priorities, maintaining the global status quo is central to ensuring that Argentina meets its rather ambitious domestic targets. In this sense, a clear priority so far has been, and will continue to be, full engagement in the ongoing discussions taking place in the various nuclear clubs. To do this, the country has relied heavily on U.S. initiatives in furthering information-sharing mechanisms and joint training

exercises. Take the Proliferation Security Initiative, established in 2003, which seeks to improve multilateral interdiction efforts and, as of early 2016, is supported by more than 100 countries. Argentina has not been a passive partner in this initiative but has played

an important role through its participation in the Operational Experts Group, which comprises 21 states working to ensure the initiative's effectiveness.

Moreover, in 2006, a group of countries established the Global Initiative to Combat Nuclear Terrorism, a partnership of more than 80 states committed to strengthening global and national capabilities to prevent, detect, and respond to nuclear terrorism. As of 2016, Argentina—which joined in 2010—along with Chile, Mexico, and Panama are the only Latin American countries to participate in this initiative. Argentina also became a full participant in the International Framework for Nuclear Energy Cooperation in 2011, one year after its establishment. Also that year, Argentina ratified the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material. In November 2012, Argentina and the IAEA organized a regional workshop on the physical protection of nuclear material. The same year, Argentina held a regional workshop on protection against sabotage of nuclear facilities. Moreover, in the framework provided by the Global Initiative to Combat Nuclear Terrorism, Argentina and Chile organized an exercise to respond to and mitigate terrorist acts. Argentina has also incorporated nuclear security in courses on nuclear and radiation safety in its training centers for nuclear technicians. On August 27, 2014, the Argentine National Congress approved the International Convention for the Suppression of Acts of Nuclear Terrorism. And in June 2015, Argentina assumed the chair of the Nuclear Suppliers Group.

This nuclear diplomacy makes one thing clear: Argentina is willing to engage in the global discussion and to commit to the adoption of high standards related to safeguards, security, and safety. Yes, Argentinians have not put pressure on their leaders to sign the Additional Protocol, and the country is unhappy with ever more demanding nonproliferation measures given the absence of serious discussion on nuclear disarmament among the P5. Yet on these issues, as with so much else, Argentina plays the constructive and responsible role of the loyal opposition.

RECOMMENDATIONS

Since the 1980s, Brazil has always been Argentina's partner in determining how to face the two countries' challenges in their relationship to the nuclear order. And yet, the rationale for continuing to view Brazil in this way is not as clear in 2016.

Argentina needs Brazil as much as Brazil needs Argentina, but the dialogue and cooperation in 2016 is not what it was just a few years before. Between 2014 and 2015, ABACC survived solely on Argentine financial installments, as Brazil did not contribute its share until June 2015. It is true that this was not because of anti-ABACC sentiment in Brasília

but mainly due to an economic recession that resulted in severe budget cuts. Yet even so, the situation was not a good sign for and did not give a good impression of the effectiveness of the bilateral safeguards regime.

Argentina must deal with the shaky bilateral arrangement, and thus much of its nuclear diplomacy will surely depend on how it establishes a new equilibrium with Brazil. A renewed framework with Brazil should expand the cooperation basket by linking nuclear energy with other scientific and technological dimensions, such as space, research, and medicine. And without a doubt, signing the Additional Protocol without Brazil would be a mistake that would be difficult for Argentina to overcome.

At the global level, Argentina has seen that it is in its national interest to make the nuclear regime work on its behalf. If this observation is sound, then Argentina should continue working under the umbrella of the nuclear nonproliferation regime; it should continue working with the P5—all of the countries, not just the Western nuclear-weapon states—as opposed to against or for them. The Argentine government should also continue its policy of ensuring that nuclear technology plays a role in the country's national development. This means balancing Argentina's national responsibilities geared toward development with its international responsibilities oriented toward increasing trust and dialogue among NPT members. These two sets of responsibilities, of course, will not always be in harmony as the reluctance to sign the Additional Protocol makes clear. Yet for Argentina, the challenge will be to strike the right balance between the two and, in doing so, to find a way to carve its own niche in the nuclear order.

The author wants to thank Julián Gadano for his insightful comments and Carolina Zaccato for her research assistance.

NOTES

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NATIONAL DEVELOPMENT AND ARGENTINA'S NUCLEAR POLICY

DATING BACK TO THE BIRTH of the nuclear nonproliferation regime in 1968, the debate surrounding the rights and responsibilities of nuclear-weapon states and non-nuclear-weapon states has remained constant. Today, this unresolved debate is again at the forefront of the challenges the regime faces. Thus, finding the right balance between these states' rights and their responsibilities—which are essentially two sides of the same coin—may ultimately determine the future of the global nuclear order.

The central questions in this debate are the following: Which aspects of different peaceful nuclear programs should be developed, and how? How and when should nuclear powers fulfill their commitment to disarmament?

Argentina's national position is that the three key pillars of the nonproliferation regime—nuclear disarmament, nonproliferation, and the use of nuclear energy for peaceful purposes—should be pursued in a balanced manner. If one of these pillars is upheld to the detriment of the other two, then the entire regime may falter. In this way, Argentina's position is not self-serving, but rather it defends the grand bargain upon which this regime is based while also seeking a stronger and more durable nuclear order.

ADVANCING PEACEFUL NUCLEAR DEVELOPMENT

Argentina's initial rejection of the nonproliferation regime, and the Nuclear Non-Proliferation Treaty (NPT) itself, was rooted in the conviction that the institutions comprising it—including the Nuclear Suppliers Group (NSG), a multilateral export control regime—were created to function as cartels that restricted access to peaceful nuclear technology for states not considered friends of the nuclear haves. Argentina and other countries also considered certain treaties, such as the NPT, to be discriminatory due to the enshrined differentiation between categories of countries, namely states with nuclear arms and states without them.

However, the end of the Cold War, and the decreased threat of nuclear conflict that came with it, initially engendered high expectations surrounding the possibility of achieving the twin objectives of disarmament and nuclear development. This new atmosphere permitted the permanent extension of the NPT in 1995 and thus the consolidation of the nuclear nonproliferation regime with the participation of many more members, including Argentina. This was also possible due to the strengthening of four systemic conditions that scholars, such as Robert Jervis in 1982, considered necessary for the formation and maintenance of a security regime: the great powers must want to establish it; the

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actors must believe that others share the value they place on mutual security and cooperation; all major actors must accept the status quo; and war and the individualistic pursuit of security must be seen as costly.¹

In part because of this relatively new global consensus—in addition to internal and external constraints and agreements—Argentina decided to formally commit to the nuclear nonproliferation regime. As of 2016, it is the only Latin American country that has signed or

joined all major nonproliferation arrangements prohibiting and controlling the construction of nuclear weapons and missiles.² Argentina also belongs to most of the related conventions, treaties, and cooperation agreements and initiatives—including the Proliferation Security Initiative—and greatly values United Nations (UN) Security Council Resolution 1540, which places legal obligations on UN members to enforce nonproliferation measures.

Unfortunately, despite the initial optimism that followed the post–Cold War end of competition between the two main nuclear powers, the United States and Russia, subsequent events have demonstrated that nuclear threats did not end and the nuclear order remains troubled.

REDUCING THE ROLE OF NUCLEAR WEAPONS

Amid perceptions of rising regional threats from China and Russia, the severe deterioration of the U.S.-Russian relationship, as well as the rise of the North Korean military nuclear program and suspicions over Iran’s nuclear activities, various voices in countries ranging from Japan to Saudi Arabia to South Korea have shown interest in developing their own nuclear-deterrent capability. While the governments of Japan, Saudi Arabia, and South Korea remain committed to the NPT, the perception of security provided by nuclear weapons continues to be a central challenge in each of these cases.

Most of the world continues to believe that humanity must avoid falling into nuclear anarchy. This is even more imperative given that the self-restraint that existed during the Cold War, based on mutually assured destruction, cannot exist in the same way today. As the *Economist* noted,

The new nuclear age is built on shakier foundations. Although there are fewer nuclear weapons than at the height of the cold war . . . the possibility of some of them being used is higher and growing. That increasing possibility feeds the likelihood of more countries choosing the nuclear option, which in turn increases the sense of instability.³

Thus, the challenge remains to avoid a potential cascade of proliferation and to minimize the chances of nuclear-weapon use all while protecting states’ legitimate right to pursue peaceful nuclear development.

In the 1940s, one of the first researchers specializing in conflict studies, Quincy Wright, concluded that the main cause of war was the difficulty involved in organizing the institutions of peace, which has also proven true in disarmament efforts.⁴ In 2016, most of the international community understands that in the rapid process of globalization, security can only be achieved through a relentless collective effort. But, is it possible to achieve such a consensus, where rights and responsibilities are balanced for all? If so, then how? Will the current scheme remain viable if the regime is expanded to include outsiders?

Export agreements that the United States and China—both members of the NPT and the NSG—signed with India and Pakistan, respectively, have resulted in other members’ growing discomfort.⁵ The dissenters remain concerned that India and Pakistan may

have access to the benefits of nuclear cooperation that are reserved only for NPT non-nuclear-weapon member states, even as they fail to comply with the same obligations. Some may question whether this is a step toward the ultimate goal of disarming these non-NPT states or simply a tacit recognition of the nuclear-weapon capabilities of non-NPT, nuclear-armed states.

Furthermore, noncompliance with some of the nuclear nonproliferation regime's obligations, including the existence of illegal nuclear programs, challenges the treaty. The cases of North Korea and, previously, Iran illustrate how nations can take advantage of the rights recognized under the NPT in order to develop nonpeaceful, or at least covert, nuclear programs. When these shortcomings are not adequately addressed, the viability and integrity of the regime is at risk, thus encouraging certain states to consider alternative means of preserving order and security in an increasingly threatening world. In particular, the non-nuclear-weapon states will have even more reason to wonder whether and how they are benefiting from the current system, and if they would not be better off without it.⁶

This debate surrounding the rights and responsibilities of nuclear states has been ongoing, and it was most recently on display at the 2015 NPT Review Conference. Specifically, Article IV of the NPT was designed to preclude any attempts to reinterpret the treaty as inhibiting a country's right to peaceful nuclear technologies. Without this provision, it is unlikely that the treaty would have received such a high number of signatories or have been extended indefinitely in 1995. Hence, it is important to respect the prevailing balance between rights and responsibilities without letting the latter surpass the former in an unnecessary, unjust, and discriminatory way.

AVOIDING AN INCREASINGLY UNEQUAL NUCLEAR ORDER

Argentina's concerns about an uneven balance between rights and responsibilities were reflected in its position toward the Iranian nuclear program, as Argentina supported measures taken against Iran and considered the country in noncompliance with its transparency commitments.⁷ However, from the outset, Argentina also sought to prevent the P5+1 (China, France, Russia, the United Kingdom, and the United States plus Germany) negotiations with Iran from becoming a precedent to restrict others' rights to peaceful nuclear development. That is to say, Argentina aimed to prevent the existence of specific violations that could be addressed through relevant mechanisms (like the UN Security Council) from being used as a rationale for the adoption of broad measures that would make all states pay for the sins of a few.

Argentina and other countries are uneasy about the shifting focus from disarmament to nuclear nonproliferation and worry that their rights to nuclear technology for peaceful purposes could be hindered by these types of initiatives. For example, Argentina believes that the creation of nuclear fuel banks—as well as any proposals to multilateralize the fuel cycle that could hinder access to knowledge, materials, equipment, and facilities for the research and application of nuclear energy for civilian purposes—may contradict Article III of the International Atomic Energy Agency (IAEA) Statute, which permits the development of “atomic energy for peaceful uses,” and other aspects of the statute.⁸ In 2009, Argentina voted against creating a reserve of uranium in Siberia, and in 2010, it abstained from a vote to establish an international bank of low-enriched uranium under IAEA control. Argentina abstained from the vote on the low-enriched-uranium-bank proposal instead of voting against it because it believed there should be no requirement for states seeking assistance to forgo peaceful nuclear activities, and because this solution would not replace existing market mechanisms.⁹

Argentina and other countries are uneasy about the shifting focus from disarmament to nuclear nonproliferation.

The broader Argentine position regarding the nuclear order is based on a belief that states should have an unrestricted right to the development and use of nuclear technologies (including enrichment and reprocessing), providing they give effective guarantees to the international community of their exclusively peaceful purposes. Accordingly, Argentina and Brazil still consider further nonproliferation measures, such as the Additional Protocol that would provide the IAEA with greater access to the countries’ nuclear sites, as voluntary and nonbinding.

In order to maintain a reasonable balance between nonproliferation and peaceful uses of nuclear energy, Argentina is working with others to coordinate a common Latin American position through the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (OPANAL) and the Community of Latin American and Caribbean States. For example, the members of the community reaffirmed the inalienable right to develop nuclear energy for peaceful purposes without discrimination in their 2014 and 2015 declarations on nuclear disarmament. And, before and during the 2015 NPT Review Conference, the agency, the community, and Argentina considered disarmament and the right to peaceful nuclear development to be two sides of the same coin.

Additionally, Argentina’s role in the Nuclear Suppliers Group—of which Argentine Ambassador to the IAEA Rafael Grossi is the 2015 to 2016 chair—and in the

nonproliferation regime more generally has to date allowed the country to find an equilibrium between defending its own interests while fulfilling obligations to the regime and to Argentina's main strategic neighbor, Brazil.

RECOMMENDATIONS

Argentina still advocates for advances across the spectrum of nuclear policy: the entry into force of the Comprehensive Nuclear-Test-Ban Treaty; the resolution of gridlock in the UN Conference on Disarmament and the negotiation of a Fissile Material Cut-Off Treaty; and the establishment of legally binding negative security guarantees from nuclear-weapon states. It also supports the idea of negotiations aimed at creating a legally binding international instrument banning nuclear weapons. But, it is clear that an initiative of this kind, even with the support of over 150 NPT signatories, will have little impact without the participation of the nuclear-weapon states, as well as those that are under the nuclear umbrella of the United States. Otherwise, this will remain a utopian, quixotic initiative. Hence, it is important to involve all nuclear states in the effort in one form or another.

Aside from the policies and positions that it already supports, Argentina should search for alternative strategies and initiatives in partnership with other states. Because it is not feasible to make any progress toward an initiative on banning nuclear weapons without the participation of the nuclear-weapon states, Argentina should explore projects with China, France, and the United Kingdom to advance the disarmament process, at least modestly, while encouraging Russia and the United States to build new momentum for further arsenal reductions. Regionally, Argentina could exercise leadership on nuclear security at the next Nuclear Security Summit and use this and other high-profile gatherings to present the main concerns of Latin American states. The Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC) could also use additional tools to verify the nuclear fuel cycle, and it could embrace other neighboring Latin American countries, making it a truly regional organization.

At the national and bilateral levels, there should be a serious evaluation of the current state of nuclear cooperation with Brazil, as well as Argentina's position on signing the Additional Protocol. Both states currently reject the protocol and consider it a voluntary, nonbinding agreement that should not be a precondition for nuclear trade. The challenges of improving nuclear cooperation with Brazil and revisiting the Additional Protocol issue came to the forefront at the end of the previous presidential administration of Cristina Fernández de Kirchner, and the momentum for a new policy appears to

have grown under President Mauricio Macri. Among Macri's key foreign policy advisers are individuals who believe that adopting the Additional Protocol is in Argentina's national interest. They also recognize that it would be preferable to first reach agreement on this point with Brazil. Signing the Additional Protocol may now be more appealing given that Argentina, in 2016, is more dependent on nuclear markets and exporters than Brazil and desires to appear transparent. Indeed, Argentina has become an important nuclear exporter of certain materials used for medical and research purposes, and in 2015 the country signed agreements with China and Russia to build new nuclear reactors.¹⁰ Moreover, signing the Additional Protocol may increase Argentina's chances of gaining support from other countries for its campaign for Argentine Ambassador Rafael Grossi to become the next director general of the IAEA in 2017.

The necessity of revisiting the bilateral nuclear relationship with Brazil, including both countries' positions on the Additional Protocol, is being discussed in public and in private, both in and out of government. There are government officials and civil society representatives who recognize the need to explain to Brazil that the two states can have different opinions on this issue without weakening their bilateral cooperation. As was the case in the past, some in the Argentine nuclear sector continue to oppose the Additional Protocol. However, in 2016, this position currently holds less sway in government than before, and it is likely that changes in this policy may take place in the future.

During the 1995 NPT Review Conference, South African delegates offered an apt comparison between nonproliferation and human rights, arguing that it is unjust for there to be one standard for the rich and another for the poor. In the nuclear policy arena, there cannot be one standard for friends of the United States and China and another for their rivals.¹¹ Instead, the viability of the existing nuclear order depends on whether there can be a set of standard rules and practices that apply to all, not simply exceptions imposed by the major powers, which often disproportionately enforce responsibilities and requirements on others without doing their share. Ultimately, if the nonproliferation regime is to endure, all states must do their part to support the goal of renouncing nuclear weapons while also protecting the mutual right to develop peaceful uses of nuclear energy.

There should be a serious evaluation of the current state of nuclear cooperation with Brazil, as well as Argentina's position on signing the Additional Protocol.

NOTES

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- 7 Argentina did so at the International Atomic Energy Agency's Board of Governors level, as well as when it occupied a nonpermanent seat at the United Nations Security Council.
- 8 "Statute of the IAEA," International Atomic Energy Agency, <https://www.iaea.org/about/statute>.
- 9 Yogesh Joshi, "IAEA and the Nuclear Fuel Bank: Signs of Spring in a Nuclear Winter," Institute for Defense Studies and Analyses, December 7, 2010.
- 10 "Argentina, Russia Sign Nuclear Reactor and Fuel Deals," *World Nuclear News*, April 23, 2015, <http://www.world-nuclear-news.org/NP-Argentina-Russia-sign-nuclear-reactor-and-fuel-deals-23041501.html>; and "Argentina and China Sign Two Reactor Construction Agreements," *World Nuclear News*, November 16, 2015, <http://www.world-nuclear-news.org/NN-Argentina-and-China-sign-two-reactor-construction-agreements-16111501.html>.
- 11 John Simpson, "The Nuclear Non-Proliferation Regime: Back to the Future?," *Disarmament Forum* 1 (2004).

BRAZIL

CONTINUITY IN BRAZIL'S NUCLEAR POLICY

BRAZILIAN DIPLOMATS have long argued that the best way to maintain peace and world security is through nuclear disarmament. Indeed, Article 21 of the Brazilian constitution states that the country will only engage in nuclear activities for peaceful purposes.¹

Brazil was an early participant in international discussions concerning the uses of nuclear technology and voted for the creation of what was then known as the United Nations (UN) Atomic Energy Commission,² which was established by the first resolution of the UN General Assembly in 1946. Since that time, the ambition to develop indigenous nuclear capabilities has been a central aspect of Brazilian nuclear diplomacy.³ The main priority in Brazilian nuclear policy is ensuring the country's right to use nuclear energy for peaceful activities.

THE THREAT POSED BY THE CONTINUED EXISTENCE OF NUCLEAR WEAPONS

Brazil's commitment to disarmament dates back to its participation in the Eighteen-Nation Committee on Disarmament, a conference organized in 1962 by the United Nations to promote dialogue between the United States and the Soviet Union at the height

of the Cold War.⁴ During the third meeting of the committee that year, then Brazilian foreign minister San Tiago Dantas focused his speech on disarmament and the elimination of nuclear tests.⁵ A year later, at the opening of the eighteenth United Nations General Assembly, the subsequent Brazilian foreign minister, João Augusto de Araújo Castro, put forth disarmament, development, and decolonization as the three fundamental issues to be tackled by the UN.

The Brazilian approach during the negotiations for the creation of the Nuclear Non-Proliferation Treaty (NPT) in 1967 also focused on disarmament and development, with the latter pertaining to the peaceful uses of nuclear technology. Then foreign minister José de Magalhães Pinto stated at the time:

The [NPT] drafts propose limitations only for those countries that do not possess nuclear weapons and they include restrictions which are not essential to the objectives of non-proliferation.

The adherence to the purposes of non-proliferation must not entail a renunciation by any country of the right to develop its own technology.⁶

In the next regular session of the General Assembly, after the NPT was already open for signature, Pinto underlined “the urgency of drawing up conventions for nuclear disarmament, under effective international control.”⁷

Brazil eventually refused to sign the NPT. The main reason for this decision was the unequal nature of the treaty, specifically its lack of balance between the obligations and responsibilities of nuclear-weapon and non-nuclear-weapon states.⁸ Though Brazil dropped its opposition to the NPT in 1998, it still maintains that the ultimate assurance against nuclear proliferation is the elimination of nuclear weapons, not the restriction of peaceful uses of nuclear technology.

TECHNOLOGY INDEPENDENCE AND REDUCING DISCRIMINATION WITHIN THE ORDER

Brazilian diplomacy has been devoted to ensuring the country’s right to develop nuclear technology for peaceful purposes and to putting an end to perceived discrimination enforced by the nuclear powers against the have-nots in the order.

The Brazilian National Strategy of Defense, first released in 2008 and revised in 2012, emphasizes that technological independence is a critical element of national security. It states: a country that “does not master critical technologies is neither independent for

defense nor for development.”⁹ In this regard, the strategy recommends that the strategic projects of the armed forces should be based on autonomous technological capacity, focusing on three strategic sectors: cybernetic, space, and nuclear.

The Brazilian Navy is tasked with the responsibility of developing and investing in the nuclear sector and is currently developing two projects. The first is the navy’s nuclear program, which encompasses full technology nationalization, the development of the nuclear fuel cycle on an industrial scale, and the construction of nuclear reactors, all for exclusive use in Brazil. The second is the navy’s Submarine Development Program (PROSUB), which includes the construction of four conventional submarines and one nuclear-propelled submarine.¹⁰

Brazil is expected to become the first non-nuclear-weapon state to develop and operate a nuclear-propelled submarine.

Some members of the international community have questioned Brazil’s motivations and intentions for developing this technology in particular.¹¹ The Brazilian Navy’s project has inspired uneasiness because Brazil is expected to become the first non-nuclear-weapon state to develop and operate a nuclear-propelled submarine. If this occurs, Brazil will effectively create a new category of states that will push the International Atomic Energy Agency (IAEA) to adapt its safeguards for the Brazilian case. The project also brings new dynamics to a long-consolidated world order, which will now have to deal with a state that can either be seen as a good example of the responsible use of nuclear technology or one that has set a dangerous precedent regarding uranium enrichment.¹²

Concerns regarding the Brazilian nuclear program are not new. Ever since the late 1940s, when Brazil first proposed the idea of establishing its own nuclear program, the international community has questioned its intentions.¹³ Throughout the next thirty years, Brazil signed deals in the nuclear field with France, Germany, Italy, and the United States,¹⁴ and it created different commissions and research institutes to develop a nuclear industry. Strong opposition from the United States to technology transfers from Germany and others to Brazil, combined with Brazil’s political crisis between 1961 and 1964, delayed the country’s nuclear development.¹⁵

In 1967, then Brazilian president Artur da Costa e Silva, the second president during the military regime, started a plan for the full development of nuclear energy. At the same time, Brazil adopted a firm stance against the NPT. In 1975, Brazil signed an agreement with Germany for the transfer of eight reactors and the full nuclear fuel cycle under the international safeguards of the IAEA. The refusal to sign the NPT together with the fact

that Brazil was being led by a military regime fed international concerns that the goal of the Brazilian nuclear program might have been to develop a nuclear weapon.¹⁶

Mistrust of the Brazilian nuclear program was eased with the end of the military regime in 1985, the inclusion of an article in the 1988 Brazilian constitution affirming that nuclear technology would only be used for peaceful purposes, and the subsequent creation of the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC) in 1991.

A few years later, Brazil joined multilateral export control regimes, such as the Missile Technology Control Regime and the Nuclear Suppliers Group, and ratified the Comprehensive Nuclear-Test-Ban Treaty and, in 1998, the NPT. These steps were aimed at leaving no room for doubt that the Brazilian nuclear program was solely intended for peaceful purposes and that Brazil was willing to cooperate with others on nonproliferation.

Becoming a party to the NPT, however, did not signify the abandonment of Brazil's objections about the nonproliferation regime, which continue to be voiced in every speech related to nonproliferation made by Brazilian representatives and every document produced by the government on the subject. Brazil's complaints include the discriminatory nature of the NPT in the absence of effective measures toward disarmament, the excess of rules imposed on countries that had renounced nuclear weapons, and the difficulties faced by non-nuclear-weapon states when attempting to access nuclear technology for peaceful purposes.

In the words of former Brazilian foreign minister Celso Amorim:

Brazil advocates that fighting the proliferation of nuclear weapons must be done both horizontally (to other states and non-state actors) and vertically (in countries that already have them). Proliferation risks indeed pose a disincentive to disarmament, but the lack of significant progress in disarmament creates incentives for proliferation. . . . Also, states that have already agreed to give up nuclear weapons cannot be requested to give up the right to use nuclear energy for peaceful purposes.¹⁷

The failure of the nuclear powers to take serious steps toward disarmament is one of the reasons that Brazil has not yet signed the Additional Protocol that would provide the IAEA with greater access to Brazil's nuclear facilities. As Brazil's 2008 National Strategy of Defense states, the country "will not adhere to amendments to the Treaty on the Non-Proliferation of Nuclear Weapons extending the restrictions of the Treaty, until the nuclear weapon states advance in the central premise of the Treaty: their own nuclear disarmament."¹⁸

Brazilian objections to the NPT have always been focused on the autonomy given to the nuclear powers, as opposed to the restrictions imposed on the non-nuclear powers. The cases of India, Israel, and Pakistan—countries that possess nuclear weapons and yet are not NPT parties—exemplify Brazil’s concerns. These countries enjoy privileged relationships with certain nuclear-weapon states, including deals in the nuclear area, such as the 2008 U.S.-Indian nuclear agreement and subsequent Sino-Pakistani nuclear cooperation, neither of which is permitted under the NPT. The United States and other powers have a policy of silence regarding Israel’s nuclear program, which sharply contrasts with the treatment given to Iran and other countries that are not U.S. allies. These cases demonstrate that the norms established under the NPT have become both more flexible and more fragile, calling the existence of the nonproliferation regime into question. The question then becomes, if the obligations established by the regime are not obeyed by all, then is the regime credible?

The nuclear powers’ failure to take serious steps toward disarmament is one of the reasons that Brazil has not yet signed the Additional Protocol.

In the opening speech of the 2015 NPT Review Conference, Brazilian Ambassador Antonio Patriota, the permanent representative of Brazil to the United Nations, stated that:

The continuing implementation gap between non-proliferation and disarmament obligations discredits the NPT bargain . . . and threatens to corrode the foundation upon which the regime was built. . . .

Arsenal reductions, especially when carried out in the context of modernization programmes and vertical proliferation, do not equal nuclear disarmament.¹⁹

The indefinite extension of the NPT and the absence of a deadline for total disarmament provide a comfortable situation for nuclear-weapon states. They have no constraints to motivate them to engage in disarmament policies like those that are applied to non-nuclear-weapon states, such as intrusive safeguards, technology denial, or the threat of sanctions.

In addition to this, the lifting of sanctions imposed on India and Pakistan after their nuclear tests, combined with the Nuclear Suppliers Group’s 2008 waiver for India to engage in civil nuclear trade and the silence surrounding Israel’s nuclear arsenal, equates to acceptance of these countries’ unofficial status as non-NPT nuclear-weapon states.

The exceptional status granted to these countries weakens the NPT and could even annul the incentives for non-nuclear-weapon states to be parties to the treaty. The norms

established by the treaty must be complied with by all states in order to ensure its credibility. This is why, in 1998, Brazil joined Egypt, Ireland, Mexico, New Zealand, Slovenia, South Africa, and Sweden in founding the New Agenda Coalition with the objectives of making progress on nuclear disarmament and calling for the five NPT nuclear-weapon states and the three non-NPT nuclear-weapon states to make a commitment to eliminate nuclear weapons.

Brazilian diplomats have been arguing that the NPT will only meet its dual goals of disarmament and nonproliferation when it is truly universal and that all it takes to put the regime in danger is the existence of a single nuclear-weapon state. Indeed, what puts humanity in jeopardy is not the development of peaceful nuclear activities but the continued existence of nuclear weapons.

RECOMMENDATIONS

On May 17, 2010, Brazil, Iran, and Turkey signed a joint declaration on Iran's nuclear program, according to which Iran would deposit 1,200 kilograms (2,646 pounds) of low-enriched uranium in Turkey and, in return, would receive 120 kilograms (265 pounds) of fuel for the Tehran Research Reactor. It affirmed, in accordance with Article IV of the NPT, Iran's right "to develop research, production and use of nuclear energy . . . for peaceful purposes without discrimination."²⁰ The Tehran Declaration was the result

of long negotiations between the three nations to reach a solution regarding the Iranian uranium enrichment program.²¹

The agreement demonstrated Brazil and Turkey's joint interest in participating in nuclear politics on the global stage. However, the refusal of the United States and other permanent UN Security

The Tehran Declaration demonstrated Brazil's interest in participating in nuclear politics on the global stage.

Council members to recognize the Tehran Declaration shows that the power of these new actors is still very limited.

The question remains, how can the emerging powers, particularly Brazil, impact the outcomes of international security issues and nuclear politics specifically? Brazil especially seeks to influence adherence to rules established by the NPT pertaining to disarmament and the peaceful use of nuclear energy. Since its accession to the treaty, Brazil has been an active participant in the NPT Review Conferences. The country was involved in proposing the thirteen steps on nonproliferation and disarmament established at the 2000 NPT

Review Conference and was an active player in the discussions on the 64-point action plan to implement the three pillars of the NPT during the 2010 Review Conference.

Yet, there are still doubts about the effectiveness of the Brazilian position. Can Brazil change or influence politics? What are the actual contributions that Brazilian actions, such as the negotiation of the Tehran Declaration, provide to the regime? One answer to these questions is that Brazilian discourse in relation to the nuclear nonproliferation regime has been ineffective. Unlike Brazil, nuclear-weapon states do not devote much attention to the issue of disarmament. At the 2015 NPT Review Conference, for example, Ambassador Patriota used the word “disarmament” 36 times during his opening speech. Representatives from the five NPT nuclear-weapon states, on the other hand, did not make more than eight references each to it. And this mismatch has been witnessed on several other occasions at international conferences.

As a result, it does not matter how much emphasis Brazil places on nuclear disarmament in bilateral meetings and multilateral forums. The power to influence the agenda only through speeches and declarations has proved minimal up to this point. The rejection of the Tehran Declaration by the United States and other Western powers followed by the adoption of sanctions against Iran serves as proof.²²

Even so, Brazil can take several practical steps to help achieve its goals of disarmament and peaceful uses of nuclear technology. First of all, Brazil must participate and promote others' participation in international coalitions committed to nuclear disarmament, such as the New Agenda Coalition and the Humanitarian Initiative. Only by adding its voice to a chorus of other countries will it be able to influence the agenda. Together with others, Brazil could propose a protocol, such as a plan for disarmament, to be signed by all nuclear-weapon states—de jure and de facto. Such a plan should be implemented under the oversight of the IAEA, with clear deadlines for its fulfillment and a commitment by these states to stop developing new nuclear weapons and modernizing existing arsenals. In addition to this initiative, Brazil could present a legal document on negative security assurances, guaranteeing that nuclear weapons will not be used against non-nuclear-weapon states and that existing nuclear-weapon-free zones will be respected until nuclear disarmament is either achieved or under negotiation.

Of equal importance to Brazil's nuclear diplomacy efforts is reinforcement of bilateral commitments with Argentina, especially the ABACC. Maintaining the proper functioning of the agency and mutual trust between the two countries is essential to ensuring the objectives of the Brazilian nuclear program.

Brazil could choose, however, to adopt a more radical position, linking its membership in the NPT to effective measures toward disarmament. Refusal to sign the Additional

Protocol has long been a point of leverage used by Brazil to demonstrate the need for the nuclear powers to fulfill the provisions in NPT Article VI that specifically call for “negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament.”²³ So far, it has not achieved the expected outcome, as China, France, Russia, the United Kingdom, and the United States remain heavily armed.

In this sense, Brazil must ask whether it is time to take further measures to achieve the desired goal of pushing the nuclear powers toward disarmament. Could withdrawal from the NPT be the right path? Could this be done without harming the image that Brazil has nurtured as a responsible nation in the nuclear order?

Brazil is subject to unique legally binding instruments that ensure its renunciation of nuclear weapons and its commitment to peaceful uses of nuclear technology.²⁴ Thus, withdrawing from the NPT would be a symbolic act and technically would not substantively change any of the commitments to which Brazil has previously agreed. This option would only be effective if there were an alternative framework to the NPT, such as a convention to ban nuclear weapons, and if other countries followed this path. Otherwise, withdrawing from the treaty would raise serious international concerns about the intentions of the Brazilian nuclear program and could possibly turn Brazil into a pariah state. Sanctions against Brazil could, among other serious effects, jeopardize investments in the country’s own nuclear program and impede future engagement with the nonproliferation regime. Thus, withdrawal from the NPT is a drastic action that would divert Brazil from its main objectives in the global nuclear order: ensuring the right to peaceful uses of nuclear technology and working toward global disarmament.

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NOTES

- 1 “Constitution of the Federative Republic of Brazil,” updated November 2008, accessed at World Intellectual Property Organization, <http://www.wipo.int/wipolex/en/details.jsp?id=8755>.
- 2 The commission was created to deal with the problems raised by the discovery of atomic energy.
- 3 In 1947, during a meeting of the Brazilian National Security Council, Alvaro Alberto reported the Brazilian position that was presented at the commission: “The Brazilian delegation requested that it be recorded that in its opinion nations possessing raw materials should, after contributing their quota to serve the needs of the rest of the world, be allowed to utilize additional quantities as they wish, for the development of their own economy and for peaceful purposes.” See “Minutes of the Tenth Session of the Brazilian National Security Council, Alvaro Alberto’s Proposal to Establish a Brazilian Atomic Energy Program,” August 27, 1947, History and Public Policy Program Digital Archive, National Archive (Brasília), accessed at the Wilson Center, <http://digitalarchive.wilsoncenter.org/document/116912.pdf?v=782231f7c673896359c4e077353e9872>.
- 4 The first disarmament negotiation forum was the Ten-Nation Committee on Disarmament (1960), which included five Warsaw Pact nations and five North Atlantic Treaty Organization (NATO) nations. This committee preceded the Eighteen-Nation Committee on Disarmament (1962–1968), which was succeeded by the Conference of the Committee on Disarmament (1969–1978) until the United Nations (UN) Conference on Disarmament was formed in 1979.
- 5 “Final Verbatim Record of the Conference of the Eighteen-Nation Committee on Disarmament [Meeting 003],” Eighteen-Nation Committee on Disarmament, March 16, 1962, <http://quod.lib.umich.edu/e/encd/4918260.0003.001/1?q1=Brazil&view=image&size=100>.
- 6 José de Magalhães Pinto, “XXII Regular Session of the United Nations General Assembly,” September 21, 1967, http://funag.gov.br/loja/download/1031-Brazil_in_the_United_Nations_1946_-_2011.pdf.
- 7 José de Magalhães Pinto, “XXIII Regular Session of the United Nations General Assembly,” October 2, 1968, http://funag.gov.br/loja/download/1031-Brazil_in_the_United_Nations_1946_-_2011.pdf.
- 8 During the discussion of the draft treaty on August 19, 1966, at the Eighteen-Nation Committee on Disarmament, eight members of the committee, including Brazil, presented a joint memorandum that stated that for the non-nuclear-weapon states the question of balance of mutual responsibilities and obligations between the nuclear and the non-nuclear powers was of particular importance.
- 9 Brazilian Ministry of Defense, *National Strategy of Defense* (Brasília: Ministry of Defense, 2008), http://www.defesa.gov.br/projetosweb/estrategia/arquivos/estrategia_defesa_nacional_ingles.pdf.

- 10 The submarine program is part of a technology transfer agreement between Brazil and France, signed in 2008. The partnership for the development of a nuclear-propelled submarine does not involve the transfer of nuclear technology.
- 11 Sarah Diehl and Eduardo Fujii, "Brazil's Pursuit of a Nuclear Submarine Raises Proliferation Concerns," *WMD Insights*, March 2008, 2; Hans Rühle, "Nuclear Proliferation in Latin America: Is Brazil Developing the Bomb?," *Spiegel Online International*, May 7, 2010, <http://www.spiegel.de/international/world/nuclear-proliferation-in-latin-america-is-brazil-developing-the-bomb-a-693336.html>; and Sarah Diehl and Eduardo Fujii, "Brazil's New National Defense Strategy Calls for Strategic Nuclear Developments," Nuclear Threat Initiative, October 30, 2009, <http://www.nti.org/analysis/articles/brazils-new-defense-strategy/>.
- 12 The Brazilian nuclear-propelled submarine is expected to be completed in 2025. The International Atomic Energy Agency (IAEA) is discussing how to apply and verify the nuclear material bound for submarine reactors.
- 13 The proposal for the establishment of a nuclear energy program was presented by Commander Alvaro Alberto, then Brazilian representative to the United Nations Atomic Energy Commission, at the tenth session of the Brazilian National Security Council, on August 27, 1947. See "Minutes of the Tenth Session of the Brazilian National Security Council."
- 14 In 1962, Brazil and France signed the Agreement for the Peaceful Utilization of Nuclear Energy. See "Acordo entre os Estados Unidos do Brasil e a República francesa sobre utilização da energia atômica para fins pacíficos," accessed at Brazilian Ministry of External Relations, http://dai-mre.serpro.gov.br/atos-internacionais/bilaterais/1962/b_16/at_download/arquivo. In 1954, Brazil purchased centrifuges for uranium enrichment from Germany. The equipment was not delivered because the United States prohibited the transport of the centrifuges. After that, in 1969, Brazil and Germany signed the Agreement on Cooperation in the Field of Scientific Research and Technological Development, which included cooperation in the nuclear area. See "Acordo geral entre o Governo da República Federativa do Brasil e o Governo da República Federal da Alemanha sobre cooperação nos setores da pesquisa científica e do desenvolvimento tecnológico," accessed at Brazilian Ministry of External Relations, http://dai-mre.serpro.gov.br/atos-internacionais/bilaterais/1969/b_44/at_download/arquivo. The most important agreement signed by the two countries was in 1975, the Agreement on Cooperation in Peaceful Utilization of Nuclear Energy, which included the construction of eight nuclear power plants by the year 2000. The nuclear deal received a lot of criticism and only one nuclear power plant, Angra II, has been constructed. In 1958, Brazil and Italy signed an agreement for cooperation in the peaceful uses of nuclear energy. See "Brazil-Italy: Cooperation Agreement for the Peaceful Use of Nuclear Energy," 1966, accessed at Brazilian Ministry of External Relations, http://dai-mre.serpro.gov.br/atos-internacionais/bilaterais/1958/b_75/at_download/arquivo. The first atomic agreement between Brazil and the United States, Cooperation Treaty for the Peaceful Development of Atomic Energy, was signed in 1955. Since then, Brazil signed different agreements with the United States, including an agreement for the supply of enriched uranium in exchange for Brazilian natural uranium with application of safeguards in 1972. See "Cooperation Agreement on the Research of the Brazilian Uranium Sources," 1972, accessed at Brazilian Ministry of External Relations, http://dai-mre.serpro.gov.br/atos-internacionais/bilaterais/1972/b_67/at_download/arquivo.

- 15 The U.S. policy of nuclear technology denial to Brazil started in this period. Recently released secret documents reveal that the United States applied political pressure to prevent Brazil from acquiring sensitive technologies and stalled Brazil's nuclear program. For more details, see "Memorandum from Brazilian Foreign Minister Silveira to President Geisel, US Threats and Promises and Brazilian Responses," February 25, 1977, History and Public Policy Program Digital Archive, Contemporary Brazilian History Research and Documentation Center, accessed at the Wilson Center, <http://digitalarchive.wilsoncenter.org/document/115220.pdf?v=7611c4b41a5a3d7bfc8a12a339560e95>; and "Cables Between the Brazilian Embassy in Washington and the Brazilian Foreign Ministry on the Transfer of Nuclear Material," 1975, History and Public Policy Program Digital Archive, Contemporary Brazilian History Research and Documentation Center, accessed at Wilson Center, <http://digitalarchive.wilsoncenter.org/document/115173.pdf?v=80efab03864c130fe88eac52b4ce85b>.
- 16 After the military regime ended, it was revealed that Brazil had developed a secret nuclear program. The secret program was dismantled in 1989 when it was integrated with the safe guarded civilian program previously based on cooperation with Germany. In 1990, then Brazilian president Fernando Collor de Mello sealed the nuclear-test site built at Serra do Cachimbo. In the same year, the president made a speech at the UN General Assembly in which he stated that "Brazil today rejects the idea of any test that implies nuclear explosions, even for peaceful ends." See "Abertura da XLV Sessão da Assembléia Geral das Nações Unidas" [Opening session of the XLV United Nations General Assembly], Library of the President of the Republic, http://www.biblioteca.presidencia.gov.br/ex-presidentes/fernando-collor/discursos-1/1990/88.pdf/at_download/file.
- 17 Celso Amorim, "O TNP e o Tripé Nuclear" [Three-fold mandate of the TNP], Folha de São Paulo, May 9, 2005, <http://www1.folha.uol.com.br/fsp/opiniao/fz0905200509.htm>.
- 18 Brazilian Ministry of Defense, *National Strategy of Defense*.
- 19 Antonio Patriota, "Statement by H.E. Antonio de Aguiar Patriota Ambassador, Permanent Representative of Brazil to the United Nations," speech at the 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, April 28, 2015, http://www.un.org/en/conf/npt/2015/statements/pdf/BR_en.pdf.
- 20 "Text of the Iran-Brazil-Turkey Deal," *Julian Borger's Global Security Blog* (blog), *Guardian*, May 17, 2010, <http://www.theguardian.com/world/julian-borger-global-security-blog/2010/may/17/iran-brazil-turkey-nuclear>.
- 21 For more details about the negotiation of Tehran Declaration, see Celso Amorim, *Teerã, Ramalá e Doha: Memórias de uma política externa ativa e ativa* [Tehran, Ramallah and Doha: Memories of active and proud foreign policy] (Rio de Janeiro: Editora Saraiva, 2015).
- 22 The UN Security Council approved sanctions against Iran just a few hours after the formal reaction by France, Russia, and the United States to the terms of the Tehran Declaration. Former foreign minister of Brazil Celso Amorim believes that one of the reasons that the declaration was rejected could be the fact that it had been accomplished by two emerging countries. See Carolina Jardim, "Celso Amorim: 'Novo acordo nuclear com o Irã é mais complexo e sujeito a

problemas” [New nuclear deal with Iran is more complex and prone to problems], *O Globo*, August 17, 2015, <http://oglobo.globo.com/mundo/celso-amorim-novo-acordo-nuclear-com-ira-mais-complexo-sujeito-problemas-1-17178851#ixzz3zLsQ186N>.

23 “Treaty on the Non-Proliferation of Nuclear Weapons (NPT),” accessed at United Nations Office for Disarmament Affairs, <http://www.un.org/disarmament/WMD/Nuclear/NPTtext.shtml>.

24 These legally binding instruments include the Constitution of the Federative Republic of Brazil, the Treaty of Tlatelolco, the South Atlantic Peace and Cooperation Zone, and the Quadripartite Agreement between Brazil, Argentina, the IAEA, and the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC).

BRAZIL'S NUCLEAR POLICY: THE CASE FOR INCREMENTALISM

BRAZIL'S NUCLEAR PROGRAM is currently in retraction and decline following a period marked by a great deal of expansion. Throughout the 2000s, government funds flowed into expanding indigenous uranium-enrichment capabilities, building a third nuclear reactor, and beginning new work on a nuclear-propelled submarine. These initiatives were part and parcel of a broader trend of Brazil's more assertive role on the international stage, fueled by a booming economy and rapid modernization at home. Plans, however, went into reverse as the country entered the 2010s with a decaying economy and a messy governing coalition that has proven too unstable to sustain the previous course. As of 2016, Brazil's nuclear program is on hold, with corruption probes paralyzing work on the nuclear reactor and the submarine, and budgets drying up across the board.¹

Perhaps the single most pressing challenge to the global nuclear order from a Brazilian perspective is the future sustainability of the Nuclear Non-Proliferation Treaty (NPT). The NPT faces a set of challenges emanating from a host of developments, including the nature of U.S. policies on nuclear nonproliferation issues, the rise of new major powers, and the recurring tensions between nuclear-weapon states and non-nuclear-weapon states.

Brazil has a preference for a minimalist nuclear foreign policy that focuses on avoiding entrapments, reassuring neighbors of its peaceful nuclear intentions, and securing

recognition as a responsible stakeholder in a system that Brazilian officials see as overwhelmingly skewed in favor of the major nuclear powers.

The emphasis on recognition as a responsible state in the global nuclear order derives from Brazil's historical engagement with nuclear power. An early beneficiary of the international Atoms for Peace program in the 1950s, Brazil, then under civilian rule, set out to acquire or develop uranium-enrichment technologies with peaceful applications in mind and little to no interest in weaponization. When the military took over in the mid-1960s, however, nuclear intentions began to shift. Although there is no evidence that the political class ever mandated the beginning of a nuclear-weapon program, the military did send mixed signals as to Brazilian nuclear intentions. By the late 1970s, Brazil was working on uranium-enrichment development outside international safeguards and oftentimes in secret facilities under strict military control. This led to a great deal of international pressure from the United States, European countries, and later on, neighboring Argentina on Brazil to be more transparent about its nuclear activities and to place them under international safeguards. It was only in the 1990s that Brazil put its facilities under safeguards and publicized the core components of its nuclear program, which now focused on reactor construction, large-scale production of low-enriched uranium, and plans for the design of a nuclear-propelled submarine.

THE NPT'S UNCERTAIN FUTURE

Brazil was a latecomer to the NPT (it joined in 1998) and has remained a consistent critic of the treaty because both the letter and the spirit of the agreement are skewed in favor of nuclear-weapon states (which have not established deadlines or criteria to measure their disarmament commitments) at the expense of non-nuclear-weapon states, whose technological development is capped by the prohibition against building such weapons. And yet, in the two decades since it joined the treaty, Brazil has come to develop the view that for all its shortcomings, the NPT remains the best shield against a global nuclear order that simply follows the caprices of and backroom agreements among the major nuclear powers. Weak as it may be, the NPT provides a framework to protect the interests of its less powerful members, in particular their right to develop nuclear technologies for peaceful purposes. Under the NPT, Brazil has been able to move on with its plans to build a nuclear-propelled submarine and a third nuclear power reactor—the two flagship projects in its nuclear program.²

In 2016, Brazil sees several threats to the future sustainability of the NPT. First, there is the issue of the U.S. commitment to the treaty, which has varied widely over the years.

As is evident in public debates and private conversations, Brazilian decisionmakers normally believe that one of the biggest threats to the NPT comes from the United States itself: by turning a blind eye to nuclear Israel, by launching initiatives outside the purview of the treaty (including the U.S.-India agreement), and by moving slowly and reluctantly toward disarmament. The United States has also sought to use multilaterally negotiated regimes like the NPT to single out Iran, a country that former U.S. president George W. Bush in his 2002 State of the Union speech labeled part of an “axis of evil.”³ In this sense, the United States is often seen not so much as a protector of the status quo but as its challenger. This perception was particularly prevalent in Brasília during the George W. Bush administration.

Weak as it may be, the Nuclear Non-Proliferation Treaty provides a framework to protect the interests of its less powerful members.

Circumstances have arguably changed with U.S. President Barack Obama’s administration, and the July 2015 agreement between the P5+1 (China, France, Russia, the United Kingdom, and the United States plus Germany) and Iran has been welcomed in Brasília. From a Brazilian perspective, there is an element of vindication; the attitude in Brasília is that diplomatic engagement with Tehran was always bound to be more productive than a strategy that set out to isolate the Iranian regime. As most Brazilian officials will say in private conversations, they are unconvinced by the argument that the Iranians negotiated in good faith because of the stringency of the international sanctions imposed on Iran from 2010 onward. Instead, Brazilian officials believe that it was the White House’s honest commitment to talking to the Iranian regime—and political change in Iran after the controversial presidency of Mahmoud Ahmadinejad—that made the agreement possible.⁴

Second is the issue of new rising powers like India and China, which are bound to unsettle the terms of the NPT as their standing in the global nuclear order evolves. Since 2008, when the Nuclear Suppliers Group, a multilateral export control regime, gave India a waiver to receive nuclear exports, Brazil has become resigned to the notion that India has already begun to receive special treatment in spite of its refusal to join the NPT: with the waiver, India’s nuclear industry will be able to partake in global nuclear trade even if Indian authorities continue to opt out of the treaty. The reason for this is that the major nuclear powers have decided to accept India as a *de facto* legitimate nuclear player. This means that accommodating other rising powers in the future may well challenge existing structures like the NPT, casting a long shadow over the legal infrastructure on which the global nuclear order rests.

And third, there is the issue of tensions between non-nuclear-weapon states and nuclear-weapon states, and whether the NPT can efficiently frame their dispute over the terms of technological dissemination and disarmament. Managing tensions between the two groups will depend to a large extent on the degree to which major powers on both sides of the fence sense progress toward some standard of global nuclear justice. While justice in a nuclear world will never be defined in terms of equality among nations (for that would imply universal proliferation), it can be defined in terms of some form of redistribution whereby non-nuclear states feel they have a stake in the existing system. In such a world, the major nuclear powers (that include but are not limited to nuclear-weapon states) would uphold some commitment to the utopian goal of nuclear zero in an undetermined future, but they would also move boldly toward applying greater controls and transparency to their national nuclear systems. They would counterbalance the tendency in global nuclear trade to form cartels dominated by nuclear industries from the industrialized world at the expense of companies based in developing countries, and they would make a serious effort to help developing countries pursue peaceful uses of nuclear energy.⁵

ENSURING THE RIGHT TO PEACEFUL USES OF NUCLEAR TECHNOLOGY AND REASSURING NEIGHBORS

The leadership in Brasília normally pays little attention to foreign nuclear policy; thus, whatever happens occurs at technical, or relatively low, levels of government. To the extent that Brazilian policymakers perceive changes in the global nuclear order as affecting their immediate interests, their priorities are focused on two fronts: The first one is ensuring that Brazil's access to global markets for peaceful nuclear technologies (both as a buyer of technology and as a potential seller of nuclear services) is not restricted. The second front is reassuring regional neighbors of the peaceful intentions of Brazilian nuclear policies, provided such reassurances remain low-cost and do not interfere with the business of developing a national nuclear industry.⁶

Brazil has learned that the possession of nuclear technologies (not necessarily weapons but also peaceful nuclear technologies) can be a major source of influence and authority in international relations. Nuclear technology is a positional good that helps a state obtain recognition from other members of the international community. In particular, the most powerful countries feel more compelled to accommodate another country's needs and demands if what it says and does carries authority. Nuclear technology, many

decisionmakers in Brasília believe, goes a long way and remains a global currency of power. It is perhaps no wonder, then, that from the perspective of Brazil—a country that willingly renounced nuclear weapons—the India model should not be an option. Far more appealing sources of emulation are Germany and Japan, which, in Brazilian eyes, have been shrewd and clever and have been rewarded accordingly by the international political system. After all, Germany and Japan have developed sophisticated nuclear industrial complexes while securing recognition by the major nuclear powers as responsible states in the global nuclear order and as legitimate players in global nuclear trade.

There is no accepted definition of what it means to be responsible in the nuclear sphere. Rather, this issue is the object of intense political contestation: responsibility can be used to chastise China or Pakistan for going nuclear, or it can be used against Russia and the United States for not disarming. At the moment, Brazilian authorities feel that the standard of responsibility that major nuclear powers apply is putting pressure on them to sign the Additional Protocol. The protocol would provide the International Atomic Energy Agency with greater access to Brazil's nuclear sites.

RECOMMENDATIONS

Brazil can undertake a number of concrete actions that would be positive game changers in the conduct of Brazilian foreign policy on nuclear issues and that would strengthen its position in the global nuclear order. These measures are also low-cost and may be easy to deliver politically.⁷

First, Brazilian civil society must be encouraged to become a much more active stakeholder when it comes to nuclear issues. As of this writing, there is not a single organization in Brazil devoted specifically to nuclear-zero initiatives. Brazilian nongovernmental organizations and academics seldom attend international meetings on the issue. For example, there was no Brazilian representative in the Group of Non-Governmental Experts From Countries Belonging to the New Agenda Coalition in 2014, despite the fact that Brazil helped found this coalition of non-nuclear-weapon states devoted to eliminating the weapons.

Second, the Brazilian government must develop principles and procedures for naval nuclear fuel-cycle safeguards. The challenge here is to balance the need for effective verification and the need to secure classified national security information. Brazilian authorities normally say in informal conversation that they will eventually put the future nuclear-propelled submarine under safeguards, but there are no statements as to exactly how this will be done.

Third, Brazil should stick to low-enriched uranium for naval nuclear propulsion. Even though the decision about which type of fuel to use in Brazil's submarine program lies

solely with the country, Brazilian decisionmakers should not ignore the international consequences of their choice.

There are several international initiatives that seek to limit the production of highly enriched uranium and to promote stricter controls on this type of material, and these are considered important steps on the way to nuclear zero.

Brazilian civil society must be encouraged to become a much more active stakeholder when it comes to nuclear issues.

Fourth, Brazil should work to eliminate or revoke Article 18 of the Tlatelolco Treaty, which permits Latin American and Caribbean states to conduct nuclear explosions for peaceful purposes.⁸ This article became redundant after Brazil renounced peaceful nuclear explosions in 1991. The General Secretariat of the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean distributed a memorandum, in 2010, recommending that Article 18 be studied and reviewed.

Fifth, Brazil should evaluate the effectiveness of the international groupings of which it is part in furthering the goal of nuclear nonproliferation, and it should rethink its participation accordingly. For example, Brazil is part of the G21 group of developing nations in the United Nations (UN) Conference on Disarmament, alongside other countries that do not see nuclear weapons as crucial for their national security. The G21 includes Egypt, Indonesia, Kenya, Malaysia, Mexico, and South Africa. But India, North Korea, and Pakistan are members too, which is perhaps one of the reasons why the conference has had such poor performance over time. In a sense, countries that are committed to disarmament are shielding the nuclear-armed states. Brazil should consider joining the Non-Proliferation and Disarmament Initiative, which includes non-nuclear-weapon states such as Germany, Japan, and Mexico, and seeks to work along with the nuclear-weapon states.

Sixth, Brazil should strengthen its commitment to the Humanitarian Initiative. The initiative is the latest in a series of attempts that have sought to put in motion a multilateral process for nuclear disarmament, like the World Court Project and the campaign for a nuclear weapons convention. Such initiatives tend to emerge out of the recognition that the state of disarmament measures and institutions is poor. While Brazil has lent its support to the Humanitarian Initiative, it remains wedded to the primacy of the UN Conference on Disarmament. Brazil should recognize that many of the most relevant developments in recent years have occurred outside the established UN disarmament

machinery and, thus, should express its support for a diplomatic process that is “open to all and blockable by none,” as stated by a representative of the International Campaign to Abolish Nuclear Weapons during the Vienna Conference on the Humanitarian Impact of Nuclear Weapons in December 2014.⁹

It is unclear how far Brazilian authorities will be able to pursue their nuclear policies in the near future, as the country grapples with a steep economic recession and an unstable government. The minimalist set of practical, low-cost policy recommendations outlined above may help keep Brazil engaged in shaping the global nuclear order as the country moves into the 2020s.

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CHINA

A RISING CHINA IN THE GLOBAL NUCLEAR ORDER

CHINA WAS LONG AN OUTSIDER in the global nuclear order despite its nuclear-weapon capability. It viewed the global nonproliferation regime as only serving the interests of the world's dominant powers, which established the prevailing order based on unjust rules and principles. This perception changed considerably after China normalized relations with the West in the 1980s and gradually developed a common identity with the other nuclear haves.

In 2016, China is by and large a major beneficiary of the existing global nuclear order. It enjoys the privileges of a formal nuclear-weapon state under the Nuclear Non-Proliferation Treaty (NPT) and derives security benefits from the success of the NPT in stemming widespread proliferation.

It cannot be said, however, that China sees the existing global nuclear order as unproblematic. Chinese officials have asserted that Beijing has been subject to at times unfair and unjust nonproliferation policies adopted and enforced by the major nuclear powers. For instance, the U.S. practice of imposing economic sanctions against Chinese entities on the basis of domestic nonproliferation laws has led to repeated Chinese protests.¹ Beijing remains skeptical about the real intentions behind some of these policies and feels that its voice deserves more attention.

China sees two major challenges confronting the current global nuclear order: First, heightened conventional military tensions over territorial disputes and strategic rivalries are increasing states' interest in military nuclear capabilities. And second, the long-standing and as yet unresolved conflict between geostrategic interests and nonproliferation objectives continues to pose a major threat to the stability of the nuclear order.

CONVENTIONAL MILITARY TENSIONS AND NUCLEAR INTEREST

More than six years after U.S. President Barack Obama's 2009 Prague speech, in which he laid out his vision for a nuclear-free world and pledged to work to achieve "a global ban on nuclear testing," the momentum behind efforts to reduce the numbers and salience of nuclear weapons is waning.² One new and worrisome trend is that conventional military tensions in different regions of the world are driving renewed interest in military nuclear capabilities.

Eastern Europe is one such region. Russian President Vladimir Putin's use of nontraditional conventional forces in Crimea and eastern Ukraine has raised threat perceptions in the region. In response, the United States and its North Atlantic Treaty Organization (NATO) allies have enhanced their conventional force capabilities in Eastern Europe and conducted high-profile military maneuvers to demonstrate their commitment to defending and reassuring the alliance's members. As part of that effort, NATO has established new command posts on its eastern border and has created a Spearhead Force, a very high readiness, joint rapid response force consisting of 5,000 land troops, with supporting air and other units, to augment the alliance's already-existing Response Force.³ In June 2015, NATO announced plans to bring the total size of its rapid response forces to up to 40,000 troops, which can be quickly mobilized in a crisis, including in defense of the alliance's eastern border.⁴

Russia's response to NATO's bolstered conventional military posture in the region appears to have been to enhance the role of nuclear weapons in its overall defense strategy. Putin has emphasized the vital role of Russia's nuclear arsenal in the country's security policy in his statements. Russia has incorporated nuclear forces in its recent military exercises and is sending strategic bombers on Cold War-style, long-distance patrols with much higher frequency.⁵ Russia's plan to revive the production of the Tu-160 strategic bomber—a nuclear-capable platform—adds to concerns,⁶ as do Russian threats to strike Danish warships with nuclear weapons if Denmark were to put U.S. missile defense systems on its naval vessels.⁷ Even though the most recent Russian military doctrine

that Putin signed in December 2014 did not make significant changes to the country's principles for nuclear-weapon deployment and use,⁸ regional developments indicate that Russia is increasingly emphasizing the role of nuclear weapons in its national defense planning. To counter the perceived Russian nuclear threat, NATO has started reviewing the alliance's nuclear capability and readjusting its nuclear posture to make it more reliable and flexible.⁹

This trend toward renewed interest in military nuclear capabilities is not unique to Eastern Europe. In the Asia-Pacific region, assessments that China's conventional military capability may soon change the balance of conventional military power have fed concerns that Beijing may use this capability in an increasingly coercive manner. In response, and contrary to Obama's

goal of reducing the role of nuclear weapons, some experts in the United States and its allied countries have called for greater emphasis on and the development of a more tailored and flexible strategy for employing nuclear weapons. This would be necessary, they have argued, to hedge against future scenarios in which China may obtain relative conventional superiority in at least some confined geographic theaters.¹⁰

Perceptions of a growing North Korean nuclear threat and a Chinese conventional threat have also spurred a renewed demand from U.S. regional allies and friendly countries for more credible U.S. security assurances.¹¹ But as its allies watch the United States struggle with sequestration-imposed defense cuts, there is a mounting sense that they may have to rely more on their own defenses in the future.¹² The most efficient way to do so may be to obtain a real, or close to real, nuclear-weapon capability as a hedge against worst-case scenarios.¹³ This coincides with the rise of nationalism and occasional remarks from high-level government officials in the region about their countries' nuclear aspirations. For example, a former Japanese defense minister has stated that "having nuclear plants shows to other nations that Japan can make nuclear weapons,"¹⁴ and public opinion polls have consistently shown that the South Korean public favors possession of nuclear weapons.¹⁵ In concert, these signs do not bode well for the future of nonproliferation in the Asia-Pacific.

If insecurity in these regions continues to worsen, the Obama administration's Prague agenda will certainly be dead (if it is not already), and the momentum for global nuclear reductions and disarmament will be reversed.

In the Asia-Pacific region, there are concerns that Beijing may use its conventional military capability in an increasingly coercive manner.

GEOSTRATEGIC INTERESTS AND NONPROLIFERATION RULES

In China, the phrase “global nuclear order” has yet to become popular. This might be at least partially attributable to the long-standing Chinese perception that even if there is a global nuclear order, it is power-driven rather than rules-based, and therefore not completely fair or just. This perception arose as a result of a two-part problem. The first part of the problem is historical: the poorly defined gray area between civilian nuclear capabilities and activities on the one hand and military nuclear capabilities and activities on the other that was left unresolved in the NPT text. This gray area has become more of a concern over time as some countries have exploited it to obtain dual-use hedging capabilities. The second part of the problem is that, either deliberately or unconsciously, the influential players in the global nuclear order prioritize geostrategic interests over nonproliferation goals when addressing the weaker players’ activities in these gray areas.

For decades, China has faulted the United States for placing the interests of its allies above the health of the nonproliferation regime, in particular by being accommodating to Israel’s and India’s military nuclear programs. Beijing has argued that the greatest threat to a just nuclear order is the double standard employed by the United States.¹⁶ This perception is strengthened by the fact that the United States maintains an extensive network of security alliances, which by default means—as understood by the Chinese—

that the United States cannot remain neutral when it comes to proliferation concerns. Even while acknowledging that the United States has been helpful in preventing some of its allies from going nuclear, some Chinese experts believe the United States has also been complicit in allowing Japan to develop and maintain a virtual nuclear capability and in protecting South Korea from censure by

There is a long-standing Chinese perception that even if there is a global nuclear order, it is power-driven rather than rules-based.

the International Atomic Energy Agency following reports that its uranium enrichment experiments violated safeguard obligations. Likewise, they drew negative conclusions about U.S. intentions when they perceived that the Obama administration did not press Vietnam hard enough to adopt the gold standard of a legally binding prohibition on enrichment and reprocessing activities in the 2014 U.S.-Vietnam civil nuclear cooperation agreement.

The Chinese perception that the United States—the most influential player in the global nuclear order—is less concerned with nonproliferation than with its narrow geostrategic

interests has driven China to behave similarly. For example, after the United States pushed the Nuclear Suppliers Group, one of the key multilateral export control regimes, to grant India a waiver for resuming civil nuclear commerce in 2008, China exported more nuclear power reactors to its longtime ally Pakistan, despite Pakistan not being granted a similar waiver.

As geostrategic rivalries intensify in Europe, the Middle East, and the Asia-Pacific, some experts express concerns that a new Cold War is coming.¹⁷ If, in this new security environment, countries are increasingly motivated to place geostrategic interests above nonproliferation objectives, the global nuclear order will undoubtedly face ever-greater challenges.

CHINA AS AN INFLUENCER IN THE GLOBAL NUCLEAR ORDER

In both the economic and political spheres, China is transitioning from being on the receiving end of international rules to a position where its influence in shaping rules and changing international institutions is much more widely recognized by the other players in the international community. China's hard power is increasing, as is its leverage. And the Chinese leadership—recognizing that this power shift is under way—is growing more confident in employing that power and asserting China's views.

The same is true of China's position in the global nuclear order. While other nuclear-weapon states struggle to fund their next-generation nuclear platforms, China's nuclear-weapon modernization program continues to close the gap with older nuclear superpowers, and the country is currently adding a sea leg to its nuclear deterrent capability. China now has the largest and most ambitious nuclear energy development plans in the world, making it the most important nuclear trading partner for many states. It also has begun building indigenously designed nuclear power reactors both domestically and overseas, and it has developed into a serious competitor in the international nuclear energy market.

China's choice of future nuclear energy technology will have important implications beyond its own borders. Its economic and political influence in fragile regions such as the Middle East is growing, which provides it with increasingly greater leverage as a mediator in regional nuclear nonproliferation negotiations.

The priority for China, therefore, is to focus not as much on how other actors are affecting the global nuclear order but rather on how China is and should be influencing the global nuclear order. This is especially important given that Chinese decisionmakers and analysts are not used to thinking through the lens of the global nuclear order, and as a result they have not delineated a clear vision or action plan.

RECOMMENDATIONS

For all of China's traditional grievances about the existing global nuclear order, it is becoming more and more capable of influencing the future direction of that system. China's participation in the negotiations between Iran and the P5+1 (France, Russia, the United Kingdom, and the United States plus Germany) and its facilitation of the multi-lateral effort to address North Korean proliferation activities demonstrated that it can set positive examples and shape international norms for tackling similar proliferation cases in the future.

But as China gains influence, it will be faced with the same issues that it believes many others have made mistakes in addressing. For example, China must decide whether to use its growing influence to promote and defend a rules-based order, including employing more coercive tools, or to instead adopt nuclear policies according to its own short-term geostrategic interests. Countries such as India, Iran, North Korea, and Pakistan have all proliferated or are suspected of having proliferation aspirations, while Japan is commonly believed to have achieved a nuclear-weapon threshold status. Will China be able to apply a neutral and universal nonproliferation standard to all of these countries even though it has very different political and security relationships with each?

China was once sympathetic to countries such as Pakistan that faced conventional security threats and wanted nuclear weapons to address their security concerns. But now that China's perceived conventional superiority is beginning to drive discussions about possible nuclear hedging in some neighboring countries, will China refrain from imposing its own power-based order?

China must decide whether to use its growing influence to promote and defend a rules-based order or to instead adopt nuclear policies according to its own short-term geostrategic interests.

In the context of regional insecurity and tension between global and national interests, China's policymakers and analysts need to take a long-term strategic approach to addressing these increasingly important issues. China's understanding of its influence must keep pace with the actual growth of its influence on the ground. To avoid repeating the mistakes made by previous superpowers and to avoid being seen as a destabilizing actor

in the global nuclear order, Chinese policymakers should reach the conclusion that promoting a rules-based nuclear order is in China's own long-term best interests. China will need to take specific steps to fight

the temptation to let short-term geostrategic interests dominate the way it makes nuclear policy.

China will benefit in this regard from improving its interagency nuclear policy coordination mechanism. Nonproliferation goals and other foreign and security policy objectives do not always overlap, and an effective interagency process can ensure that long-term interests such as nonproliferation will not be sacrificed to advance short-term goals. The newly established National Security Commission, for instance, could play a role in facilitating interagency discussions. A more effective interagency process can help make sure that China's economic and foreign policies will be consistent across the board when it comes to nuclear-related issues.

Moreover, the government can shed more light on Beijing's views about the global nuclear order and China's place in it. This would help build confidence in the international community about the positive role that China can play in the future. Beijing has not published a white paper on nuclear-related issues since 2005. Given how much the world has changed in more than a decade, it is time for China to consider publishing an updated white paper to reflect on past efforts and to elaborate on its future vision.

All in all, China is in a better position than many other countries to address the challenges confronting the global nuclear order. China can think more proactively about how to promote the positive development of a stable global nuclear order that benefits the long-term interests of all. The priority for China is to begin considering policy issues from the perspective of the global nuclear order, working out a long-term strategy to promote a rules-based system, and adopting a holistic approach to understanding the impact of its own nuclear and conventional security policies and their effects on the security calculations of others.

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INDIA

INDIA'S IMPACT ON THE EVOLVING NUCLEAR ORDER

THE GLOBAL NUCLEAR ORDER is under great duress. Despite its best efforts, the nonproliferation regime's failure to address the stockpiles of the nuclear-weapon states, as well as its inability to create a credible barrier to states aspiring to have nuclear weapons, has left the regime weak and ineffective, thus calling its relevance into question. If the goals of nonproliferation and even disarmament are to be brought back to the forefront, there must be a serious effort to reform the current nuclear order.

From India's perspective, the global nuclear order faces two primary challenges. First is the international community's need to accept that the order itself is flawed owing to the exclusionary and archaic membership rules that limit its efficacy. The only way to address this is for states to take steps toward reforming the order. If it remains a discriminatory order, out of sync with global realities, it is only further delegitimized. The second challenge is ensuring that nuclear (in addition to chemical, biological, and radiological) materials are secure and subject to more robust and reliable control mechanisms. The physical protection of these materials is of the utmost importance to Indian security. The South Asian region's experience with terrorism makes this all the more urgent.

GAINING LEGITIMACY THROUGH UNIVERSALITY

The Indian experience with the nuclear nonproliferation regime has been fraught with duality. India, in 1954, was one of the first states to call for negotiations on nonproliferation and disarmament, but it opposed the Nuclear Non-Proliferation Treaty (NPT) as early as 1965. It considered the treaty discriminatory, highly unequal, and exclusionary because it privileged a few states by allowing them to retain nuclear weapons essentially in perpetuity, while requiring all other states to forswear them.¹ In subsequent multilateral negotiations, including on the Comprehensive Nuclear-Test-Ban Treaty (CTBT), India participated actively in the deliberations only to be left disappointed with the final outcome.² India's nuclear tests in 1998 marked a tectonic shift in the nuclear order and served as a definitive break from New Delhi's earlier principled and moral approach toward the nonproliferation of nuclear weapons. India was now a nuclear-weapon state, albeit a self-proclaimed one.

Although India faced immediate economic sanctions following the 1998 nuclear tests, these quickly unraveled. The 2008 U.S.-India Civil Nuclear Agreement, the framework of which was announced in 2005, in particular, marked a significant change in the international community's attitude toward India's nuclear program. This landmark

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agreement ended the sanctions imposed after India's initial test in 1974 and allowed it to embark on nuclear cooperation with the United States and other nuclear suppliers. Both the International Atomic Energy Agency (IAEA) Board of Governors' 2008 approval of India's safeguards agreement and a waiver by the Nuclear Suppliers Group (NSG), one of the major multilateral export control regimes, bolstered India's credentials as

a responsible nuclear state; no longer was it considered to be revisionist and illegitimate in the eyes of other major nuclear states. Thus, the nuclear order appeared to be slowly easing India into the mainstream. The question then becomes: Why stop there? Why not fully integrate India into the NPT structure and that of the export control regimes? This would surely be to the benefit of the regimes and ensure, in turn, that India's position as an outlier would not undermine the legitimacy of the order.

India has expressed its desire to join the NPT as a nuclear-weapon state,³ thus marking a shift toward a policy that is more accepting of the status quo and signaling an end to the revisionist approach to the nuclear order that it has taken for decades.

There are, however, certain structural difficulties inherent in this. Article IX of the NPT defines a nuclear-weapon state as one that “has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967.”⁴ India, which detonated a nuclear weapon only after this date, does not qualify to be classified as a nuclear-weapon state under the treaty. Article IX essentially ensures that if a state tested nuclear weapons after 1967, there would be a categorical gap in the treaty in which it would neither be a nuclear-weapon state nor a non-nuclear-weapon state.

United Nations (UN) Security Council resolution 1887 can be seen as an attempt to clarify this categorical ambiguity, but it is nevertheless a weak attempt at doing so. Adopted in September 2009, the resolution, among other points, calls upon states that are not parties to the NPT to accede to the treaty as non-nuclear-weapon states.⁵ Thus, there is an expectation in the UN system that any state not currently a party to the treaty could only join as a non-nuclear-weapon state.

Unfortunately, this resolution ensures that the NPT non-signatories that are also nuclear states—India, Israel, and Pakistan—have no incentive to join the regime.⁶ The other problem is that adherence to this resolution would lead to the non-NPT nuclear-weapon states effectively being categorized as non-nuclear-weapon states as far as the regimes are concerned. This appears to be a product of a deliberate and forced incognizance on the part of the NPT with the reality of the world today.

If the nuclear order is to attain the goal of universality, as well as to regain efficacy and resolve the crisis of legitimacy, it is imperative that it incorporate the current outliers into the overall regime structure. India’s admission to the NSG, the Missile Technology Control Regime, the Wassenaar Arrangement, and the Australia Group—the four major export control regimes—is thus crucial not only for India to gain further legitimacy in the international nuclear order but also for the order itself to gain greater legitimacy. The United States and others, in recognition of this, have supported India’s bid for membership in these regimes. In time, it will also become imperative for these regimes to consider additional incentive mechanisms that can be employed to incorporate and regulate Pakistan and Israel in the order as legitimate actors. This would require a set of objective terms and criteria that all these states meet in order to enhance the legitimacy of their inclusion.

One such mechanism, suggested by historian Avner Cohen and former U.S. diplomat Thomas Graham Jr. in 2004, could be the creation of an associate membership for the outlier states under a separate freestanding agreement or protocol.⁷ If such a mechanism can provide for a legally binding and multilaterally verifiable commitment to the NPT, without necessarily overhauling the treaty, then there is no reason why such a process

should not be initiated. The willingness of leading states in the nuclear order to recognize the de facto nuclear states as de jure nuclear states is central to this process of enhancing legitimacy and to the larger aim of universality of the regime.

NECESSITY OF SECURING NUCLEAR MATERIAL

The security of nuclear materials, especially in its own neighborhood, is also a major concern for India. To this effect, India has ratified the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material, which would make it legally binding for states to improve the security of their nuclear materials and facilities and to cooperate on countering nuclear smuggling, among other provisions.⁸ The amendment has not entered into force yet, pending ratification by additional states, leaving a gap in the international legal architecture for nuclear security.

India's experience with terrorism and its geopolitical position, especially given that it borders two states that possess nuclear weapons, make the security of nuclear facilities and nuclear materials a particular concern. The Washington communiqué from the 2010 Nuclear Security Summit reaffirmed U.S. President Barack Obama's call to secure "all vulnerable nuclear material in four years."⁹ While the subsequent Nuclear Security Summits reported considerable progress toward this goal, its realization is still quite far away. From an Indian perspective, there must be movement toward making the provisions of the voluntary measures of the Nuclear Security Summit agreements legally binding. A more robust and universal architecture for the governance of nuclear and radiological safety and security is needed. At the very least, the ratification of the amended Convention on the Physical Protection of Nuclear Material should be made mandatory for all participants of the Nuclear Security Summit Process. Additionally, attention needs to be directed toward making other agreements, like the IAEA's Code of Conduct on the Safety and Security of Radioactive Sources, legally binding.

RECOMMENDATIONS

For India, the path forward should involve a good look at the past. As early as 1954, then Indian prime minister Jawaharlal Nehru called for a "standstill agreement" on nuclear testing while a comprehensive disarmament agreement was being negotiated.¹⁰ And in 1988, at a special session on disarmament at the UN General Assembly, then prime minister Rajiv Gandhi presented an Action Plan for a Nuclear-Weapons-Free and

Non-Violent World Order, which called for the time-bound universal elimination of nuclear weapons and the establishment of a “single integrated multilateral comprehensive system.”¹¹ In hindsight, the Rajiv Gandhi Action Plan was far ahead of its time, and its idealism outweighed its real-world applicability. In the early 1990s, India became one of the original co-sponsors of the negotiations on the Comprehensive Nuclear-Test-Ban Treaty and a lead sponsor, along with Canada, of the Fissile Material Cut-Off Treaty.

Since its early years as an independent state, India has played a leadership role in developing many of the elements that make up the nuclear nonproliferation regime and other initiatives that provide structure to the nuclear order. Regardless of what action the international community takes vis-à-vis Indian membership in these groups, India needs to restore and reinvigorate its leadership role. To that effect, its current demand for membership in the NPT as a nuclear-weapon state needs to be seen as part of the larger objective to insert dynamism into an otherwise sluggish nuclear nonproliferation regime and to reinvigorate the debate on disarmament as stipulated in Article VI. India, for its part, must look beyond its role as a principled contrarian in the nuclear order and be open to becoming a de jure nuclear state under a protocol or agreement appended to the NPT. This would in fact be in line with Indian opposition to the nuclear elitism of the P5 (China, France, Russia, the United Kingdom, and the United States) and would not render its earlier positions on the inequity of the nuclear order hollow.

India needs to be more engaged in the CTBT as well. Currently, the Indian signature of the treaty is contingent on U.S. ratification since without the United States the treaty will not come into force. This effectively gives India’s signature little significance for the CTBT regime. However, especially because India has already undertaken a unilateral moratorium on nuclear

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testing and has adhered to the basic stipulations of the CTBT since 1998, it should take further steps to reinforce the regime. As nuclear nonproliferation experts Ramesh Thakur and John Carlson have pointed out, one of the primary steps toward this goal would be India’s participation in the Comprehensive Test-Ban-Treaty Organization (CTBTO) Preparatory Commission’s International Monitoring System process.¹² This monitoring network currently has 337 facilities in various stages of development (with 282 certified) in 89 countries. However, India does not allow monitoring stations to be built on its territory, leaving the system weaker in the entire region. While Pakistan has two planned stations at Rahimyar Khan and Pari, it has not signed the facility agreement that serves

as the formal commitment between a host nation and the CTBTO.¹³ China, in contrast, has been sending data to the Preparatory Commission since 2014.¹⁴ As a responsible member of the order seeking admission into a number of nuclear export control regimes, New Delhi would take a valuable step toward reaffirming its commitment to ensuring the strength of nuclear governance by allowing stations to be built in India.

To bolster its promotion of strengthened nuclear security, India should consider measures to encourage greater transparency in nuclear-material management practices. This could include drafting a white paper on the management of nuclear and fissile materials as well as on the measures taken to ensure the safety and security of its warheads. In addition, India needs to address the long-standing challenge of strengthening its domestic regulation to increase institutional, financial, and administrative autonomy of the nuclear regulator. In this regard, proposed legislation to establish a Nuclear Safety Regulatory Authority could be improved to ensure that it will be less subject to political pressure.¹⁵

India also should consider regional initiatives, such as a framework for cooperation on nuclear and radiological security cooperation in South Asia. The region is not just composed of nuclear neighbors (China, India, and Pakistan). The remaining non-nuclear states, in particular those bordering India and Pakistan such as Afghanistan, Bangladesh, Myanmar, Nepal, and Sri Lanka, have an equally important stake in the security of the region. A regional framework on nuclear- and radiological-materials security cooperation to address common threats and focus on measures to combat potential smuggling would be a useful initiative to tackle some of the threats to nuclear security.

Finally, India should adopt more proactive diplomacy to allay fears in the region about the implications of its NSG exemption and possible membership. At the Carnegie Endowment for International Peace's International Nuclear Policy Conference in 2015, Khalid Kidwai, a retired general and the former head of Pakistan's Strategic Plans Division, argued that granting India NSG membership would be destabilizing and would "never be acceptable to Pakistan."¹⁶ India needs to ensure that its role in the international nuclear order does not have a detrimental effect on its neighborhood. It must thus take steps to allay the fears of those in the region that see so-called Indian exceptionalism as a threat.

The narrative of disarmament and nonproliferation is, and has been over the years, dominated by U.S.-Soviet (and later Russian) relations. But the time is ripe for alternative perspectives and leadership to come from a different region, one mired in similar—if not more dire—nuclear insecurities. India certainly possesses the ability and pedigree to reenergize the disarmament debate, and this is perfectly in line with its interests. The important question remains: Is India willing to do so?

NOTES

- 1 So much so, that in 1965, the Indian representative to the Conference of the Eighteen Nation Committee on Disarmament, V.C. Trivedi likened the nuclear-weapon states to an Emperor “who . . . himself a drunkard . . . prohibited drinking in the empire.” See V.C. Trivedi, “Final Verbatim Record of the Conference of the Eighteen-Nation Committee on Disarmament [Meeting 223],” speech at the Conference of the Eighteen-Nation Committee on Disarmament, August 12, 1965, <http://quod.lib.umich.edu/e/endc/4918260.0223.001?rgn=main;view=fulltext>, 15.
- 2 For details, see N.D. Jayaprakash, “Nuclear Disarmament and India,” *Economic and Political Weekly* 35, no. 7 (2000), <http://www.jstor.org/stable/4408930>; and Arundhati Ghose, “Negotiating the CTBT: India’s Security Concerns and Nuclear Disarmament,” *Journal of International Affairs* 51, no. 1 (Summer 1997).
- 3 This was most prominently expressed by then prime minister Manmohan Singh on CNN on Fareed Zakaria’s show *Global Public Square* during his November 2009 state visit to the United States. See “Fareed Zakaria GPS,” transcript, November 29, 2009, CNN, <http://edition.cnn.com/TRANSCRIPTS/0911/29/fzgps.01.html>. Other reports have discussed Singh’s efforts in trying to get India a place in the NPT. See K.P. Nayar, “Singh’s Nuke Gamble II—PM Leads Effort to Get India a Place in Nuclear Club,” *Telegraph*, December 1, 2009, http://www.telegraphindia.com/1091201/jsp/frontpage/story_11806763.jsp. On the question of reforming the NPT to include India, see Rajiv Nayan, “Is NPT Membership as a Nuclear Weapon State an Option for India?,” *Strategic Analysis* 31, no. 6 (November 2007), 869–87; and A. Vinod Kumar, “Reforming the NPT to Include India,” *Bulletin of the Atomic Scientists*, May 1, 2010, <http://thebulletin.org/reforming-npt-include-india>.
- 4 “Treaty on the Non-Proliferation of Nuclear Weapons (NPT),” accessed at United Nations Office for Disarmament Affairs, <http://www.un.org/disarmament/WMD/Nuclear/NPTtext.shtml>.
- 5 David P. Fidler and Sumit Ganguly, “India Wants to Join the Non-Proliferation Treaty as a Weapon State,” *Yale Global Online*, January 27, 2010, <http://yaleglobal.yale.edu/content/india-wants-join-non-proliferation-treaty>.
- 6 South Sudan is a nonsignatory state as well, but its creation as a state is recent enough for the nuclear nonproliferation order to not be too worried about it right now.
- 7 Avner Cohen and Thomas Graham Jr., “An NPT for Non-Members,” *Bulletin of the Atomic Scientists* 60, no. 3 (May/June 2004), 40–44.
- 8 “Convention on the Physical Protection of Nuclear Material,” accessed at International Atomic Energy Agency, <https://www.iaea.org/Publications/Documents/Conventions/cppnm.html>.
- 9 “Communiqué of the Washington Nuclear Security Summit,” press release, White House Office of the Press Secretary, April 13, 2010, <https://www.whitehouse.gov/the-press-office/communiqu-washington-nuclear-security-summit>.

- 10 “1945–54: Early Efforts to Restrain Nuclear Testing,” Preparatory Commission for the Comprehensive Nuclear Test-Ban-Treaty Organization, <http://www.ctbto.org/the-treaty/history-1945-1993/1945-54-early-efforts-to-restrain-nuclear-testing/>.
- 11 Rajiv Gandhi, “A World Free of Nuclear Weapons: An Action Plan,” proposal presented at the United Nations General Assembly Third Special Session on Disarmament, New York, 1988.
- 12 Ramesh Thakur, “How India Can Support the CTBT Before Signing,” *Japan Times*, April 8, 2015, <http://www.japantimes.co.jp/opinion/2015/04/08/commentary/world-commentary/india-can-support-ctbt-signing/#.VTvzM9JVikp>.
- 13 “Facility Agreements,” Preparatory Commission for the Comprehensive Nuclear-Test-Ban-Treaty Organization, accessed February 28, 2016, <https://www.ctbto.org/member-states/facility-agreements/?textonly=1>; and “Country Profiles: Pakistan,” Preparatory Commission for the Comprehensive Nuclear-Test-Ban-Treaty Organization, accessed March 2, 2016, <https://www.ctbto.org/the-treaty/country-profiles/?country=130&cHash=bb58d26ef65b87c6251f4399cf95726a>.
- 14 “Chinese Monitoring Stations Now Sending Data,” Preparatory Commission for the Comprehensive Nuclear-Test-Ban-Treaty Organization, January 6, 2014, <https://www.ctbto.org/press-centre/press-releases/2014/chinese-monitoring-stations-now-sending-data/>. It should be noted here, however, that like the United States, China is a signatory to the CTBT but has not ratified it.
- 15 Happymon Jacob, “Regulating India’s Nuclear Estate,” *Hindu*, August 29, 2014, <http://www.thehindu.com/opinion/lead/lead-article-regulating-indias-nuclear-estate/article6360984.ece>.
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INDIA AND THE NUCLEAR ORDER: CONCERNS AND OPPORTUNITIES

INDIA'S PERSPECTIVE on the evolving nuclear order is shaped by the manner in which the contemporary nuclear reality impinges on its national security and its interactions with other countries. The most pressing challenges to the existing global nuclear order that are priorities from India's vantage point cover two broad sets of issues. The first set of challenges arises from a perception of an overall increase in the salience of nuclear weapons across nuclear-weapon states and its concomitant impact on developments in the South Asian region. The second set of challenges arises from the incomplete task of India's incorporation into the global nuclear order, a fact that constrains the country's full participation in the multilateral export control regimes despite the accommodation it has earned through a legal and consensual process.

THE INCREASING SALIENCE OF NUCLEAR WEAPONS

In Prague in 2009, U.S. President Barack Obama stated, "To put an end to Cold War thinking, we will reduce the role of nuclear weapons in our national security strategy, and urge others to do the same."¹ Alas, even after more than six years, few moves are evident in this direction. Rather, trends indicate that China, Russia, and the United

States are engaged in nuclear modernization with high budgetary allocations for nuclear weapons. Tensions between Russia and the United States and the North Atlantic Treaty Organization (NATO) have cast a shadow on cooperative and collaborative approaches to issues ranging from nuclear security to arms control. Russia's annexation of Crimea and support for secessionists in eastern Ukraine have led to a perception that "possession of nuclear weapons equals strength, protection, and inviolability, while foregoing nuclear weapons can threaten the very existence of a country," in the view of scholars such as Oliver Thränert.² This impression gains greater traction as China becomes more assertive in its foreign relations with other states, as exemplified by its maritime expansion, intrusions across the Line of Actual Control into India, and continuing nuclear cooperation with Pakistan despite the reservations of the Nuclear Suppliers Group (NSG), a multilateral export control regime. All of these developments, directly or indirectly, contribute to the perception that nuclear weapons are important and indispensable.

During the Cold War, bipolar deterrence stability was premised on mutually assured destruction. Today, however, with nuclear weapons in nine countries, the situation is

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marked by a multiplicity of deterrence equations. Many nuclear dyads impinge on others. Some deterrence equations are triangular, complicating the search for strategic stability.

A good illustration of this phenomenon is provided by ongoing Chinese conventional military and nuclear modernization, which is driven by U.S. development and deployment of ballistic missile defense and conventional prompt global strike systems. Some of the new and

major Chinese acquisitions include the Jin-class nuclear submarines armed with nuclear-tipped missiles with a range of 8,000 kilometers (about 4,971 miles); Su-35 fighter jets; J-20 fifth-generation fighter jets; the DF-21D antiship ballistic missile; and antisatellite weaponry, including the SC-19 ballistic missile. The impacts of China's advancing military capabilities are, in turn, felt in India. This is despite there being a general sense of nuclear stability between Beijing and New Delhi, owing to both having a similar understanding of nuclear weapons as tools for deterrence and not war fighting, as well as a doctrinal consonance on no first use of nuclear weapons. Nuclear modernization in such a situation raises ambiguity and thereby compels India to look for offensive and defensive deterrence capabilities of its own. China does not acknowledge India as a nuclear-weapon

state and is bolstering its own nuclear deterrent with an eye toward the United States and other actors in the nuclear order. Considering this conundrum, achieving strategic stability among multiple overlapping dyads is far from easy.

Even more problematic is the fact that there is no shared understanding of how deterrence works. Russia (and before it, the Soviet Union) and the United States had evolved a deterrence model and honed it over years and through multiple crises. But other dyads, including U.S.-China, China-Russia, China-India, India-Pakistan, and U.S.–North Korea, do not feature stable deterrence amid doctrines marked by ambiguity and strategies inclined toward hedging. Consequently, offensive and defensive capabilities are simultaneously being developed, acquired, and enhanced. None of the dyads indicates any proclivity for bilateral or multilateral arms control or confidence-building measures.

On the contrary, some nuclear-weapon states seem to believe that nuclear stability is not a desirable goal. Indian and other analysts assess, for instance, that Pakistan espouses a strategy of nuclear brinkmanship or strategic instability as a way of enhancing deterrence.³ Having acquired nuclear weapons for bridging its conventional military asymmetry with India, the Pakistan Army should be in favor of nuclear stability. But that does not appear to be the case. Pakistan seeks to exploit nuclear parity as a shield from behind which to undertake terrorism. And, in order to do so with no fear of retaliation, Pakistan seeks deterrence at a low nuclear threshold in order to suggest the inevitability of nuclear use in case of an Indian response to terrorist attacks from Pakistan. This projection is meant not just to deter India but also to raise the fears of the international community that, Pakistan assumes, would put pressure on India to exercise restraint.

In recent times, further nuclear brinkmanship has been evident. One such act was illustrated in the tests of *Nasr*, a very short-range ballistic missile that Pakistan claims can be used for launching battlefield nuclear weapons. Reports also indicate that Pakistan is equipping its surface ships and diesel-powered electric submarines with nuclear-tipped missiles.⁴ Both these moves exacerbate the dangers of miscalculated, inadvertent, or unauthorized use arising from delegated command and control. Given that Pakistan is credited with having the fastest-growing nuclear arsenal while also harboring and supporting terrorist organizations,⁵ the risks it promotes are further magnified. As one U.S. journalist put it, “Terrorism is the classic underdog tactic, but Pakistan is certainly the world’s first nuclear-armed underdog to successfully apply the tactic against a nuclear rival.”⁶

Pakistan claims that the domestic security of its nuclear weapons and fissile material has considerably improved.⁷ However, given that the authority of the state is being challenged by a variety of nonstate actors, such as the *Tehrik-i-Taliban Pakistan*—which are as anti-West and anti-India as they are against Pakistan’s establishment—confidence in

the security of strategic facilities amid the prevalent general chaos requires a major leap of faith. Matters are not helped by continued instances of terrorism in Pakistan, each more audacious than the last.⁸ In such a situation, and as Pakistan's nuclear arsenal becomes more dispersed, the chances of losing control over weapons become greater, making nuclear terrorism a matter of considerable concern for India and for the world.

Meanwhile, Pakistan's brinkmanship behavior not only raises the risks of inadvertent escalation for the region but also, even more alarmingly, showcases the multipurpose utility of nuclear weapons for others around the world. Given that Nuclear Non-Proliferation Treaty (NPT) nuclear-weapon states are engaged in their own nuclear modernization, they have no moral authority or even the political will to demand, impose, or encourage behavior that plays down nuclear weapons. So, Pakistan's moves toward tactical nuclear weapons, despite all accompanying dangers, cannot be stopped because there is no international legal instrument or agreement that proscribes such weapons. It appears, then, that the current nuclear environment is ready to tolerate nuclear brinkmanship notwithstanding its risks. This reality, nevertheless, poses direct strategic and direct operational challenges for India.

The best way of addressing the dangers posed by nuclear brinkmanship would be through the elimination of nuclear weapons. However, universal nuclear disarmament is most credibly conceivable by incrementally reducing the salience of nuclear weapons. India has long maintained that two ways of doing this would be to arrive at a universal no-first-use agreement and a ban on the use or threat of use of nuclear weapons. However, India's ability to carry these initiatives forward with widespread support from others is constrained by its own incomplete accommodation into the nuclear order.

INDIA'S INCOMPLETE ACCOMMODATION

India's accommodation into the global nuclear order has been in the making since the joint statement by then Indian prime minister Manmohan Singh and then U.S. president George W. Bush in July 2005.⁹ This announcement spawned the 2008 deal that ended sanctions against India that had been in place since its first nuclear test in 1974 and paved the way for cooperation with United States and other nuclear exporters. Between 2005 and 2008, several additional steps were taken in U.S. and Indian legislative bodies and at the Nuclear Suppliers Group and the International Atomic Energy Agency to formalize this cooperation and to allow India to conclude civil nuclear cooperation agreements with other exporters. But India is yet to be granted membership in the four key multilateral export control regimes—the Missile Technology Control Regime, the

NSG, the Wassenaar Arrangement, and the Australia Group. In fact, the process has suffered unnecessary distractions. The regimes have faced criticism, both from their members and from nonmembers, for granting concessions to India, and the process of Indian entry has been complicated by demands that the same status be granted simultaneously to others.

Such allegations and demands create confusion among Indian decisionmakers regarding whether New Delhi is respected for being a consistently constructive participant in nonproliferation and disarmament discussions, or whether it remains an outcast despite having earned the right of accommodation. India is understandably rankled when some states, such as China, argue that membership for India should be granted only when a similar deal is offered to others—namely Pakistan—whose nuclear histories, actions, and behaviors stand in complete contrast to India's.

What message would such an approach convey? Does the nonproliferation community wish to incentivize responsible nuclear behavior or encourage the view that irresponsible behavior can be condoned, even rewarded? Some analysts have argued in favor of using the prospect of membership as an incentive for Pakistan to become a good actor.¹⁰ However, there is little evidence on which to pin such hopes. From the narrow and rather tactical outlook of the nonproliferation community, Pakistan might have mended its ways on illicit proliferation. However, from the perspective of India's security, it has certainly not given up its tactic of terrorism linked with nuclear brinksmanship. It is quite likely that the Pakistan Army would sell any future Pakistani nuclear deal as a victory of its brinksmanship, which would only encourage more of the same behavior in the future.

While it is up to the NSG to make a choice regarding Indian membership, India's basic security concerns will not be addressed by accommodating Pakistan unless this can miraculously bring about a change in Rawalpindi's terrorism policy toward India. India has highlighted and brought evidence to show the role of Pakistan in several acts of terrorism sponsored

by the country's army and intelligence service, the Inter-Services Intelligence (ISI).¹¹ This was further reinforced by the 2016 video deposition of David Headley—a U.S. citizen and former member of the terrorist group Lashkar-e-Taiba serving a prison term in the United States for his role in the 2011 Mumbai attacks—before an Indian court.¹²

In order for India to feel included in the nonproliferation regime, it is important for it to be accommodated into the four key multilateral export control regimes.

Headley detailed how the ISI provided him with training and the monetary and logistical support to undertake reconnaissance missions that led to the Mumbai attacks. Therefore, in the face of this reality, attempting to accommodate the Pakistani state—instead of penalizing it—is a proposition that is unacceptable to India.¹³ New Delhi also finds it frustrating that India's staunch upholding of the principles of nonproliferation and disarmament is taken lightly by the international community. Neither is adequate significance accorded to the fact that India has a nuclear research and energy infrastructure that is more advanced than many of the countries comprising the NSG.

Given the inflexibility of the NPT, which deprives India of a route to become a nuclear-weapon state under the treaty, in order for India to feel included in the nonproliferation regime, it is important for it to be accommodated into the four key export control regimes. Additionally, while India would continue to support initiatives that it believes undercut the salience of nuclear weapons, these initiatives could garner greater support from others only if India is considered to be part of the nuclear order.

RECOMMENDATIONS

What are the initiatives that India believes could reduce the value of nuclear weapons and create the environment for nuclear disarmament? The first of these, and one that is reflected in India's nuclear doctrine, is the commitment to no first use of nuclear weapons.¹⁴ This strategy is premised on the promise of assured retaliation to cause unacceptable damage. It demands a focus on survivability of arsenals and command-and-control structures in order to sustain a secure second-strike capability that can ensure retaliation. While this is not easy, it is less demanding and less destabilizing than a credible first-strike capability built on a large nuclear arsenal, highly accurate missiles with multiple independently targeted reentry vehicles, and elaborate command-and-control structures, including predelegation of authority to maintain a high level of readiness for first use.

Adoption of universal no first use (and universal acceptance of the sole purpose of nuclear weapons as nuclear deterrence) would be a crucial step toward the elimination of nuclear weapons. Since there would not be a first use, it would effectively mean no use of nuclear weapons and hence lead to reduced dependence on the weapons in national security strategies over a period of time. This would reinforce nonproliferation by sending a strong signal of the diminishing utility of nuclear weapons. It would lessen the drive of nuclear-weapon states to modernize arsenals and thus could lower interstate tensions. In fact, a universal no-first-use agreement would be even more relevant with smaller nuclear forces since otherwise the temptation to launch a disarming first strike would be high

due to use-them-or-lose-them compulsions. India should undertake a more proactive effort to push the case for a no-first-use commitment internationally.

A second measure that India promotes to reduce the utility of nuclear weapons is a ban on their use or threat of use. India has proffered this idea in a draft resolution entitled “Convention on the Prohibition of the Use of Nuclear Weapons,” which has been annually tabled at the United Nations General Assembly since 1982. A good example of how this approach works is the experience with chemical weapons. The use of chemical weapons was banned in 1925 by the Geneva Protocol. So, in 1939 when the Second World War broke out, there was nothing more than over a decade-old agreement on the non-use of chemical weapons. Countries still had the knowledge and the wherewithal to develop these weapons. However, the deployment of chemical weapons on the battlefield was extremely rare during the Second World War, especially compared to these weapons’ heavy use during the First World War.¹⁵

The reluctance to use chemical weapons, in fact, characterized the rest of the twentieth century despite the possession of stockpiles by many countries and even though the Chemical Weapons Convention entered into force only in 1997.

Adoption of universal no first use would be a crucial step toward the elimination of nuclear weapons.

There is a lesson to be learnt here for nuclear weapons, too. Given that there has been no nuclear-weapon use since Hiroshima and Nagasaki, a norm on their non-use is currently in place. Of course, some nations do continue to hold doctrines that project a readiness to use nuclear weapons. But, even those that profess first use are nevertheless inclined to accept that the use of the weapon can only be sanely envisaged as a last resort when the survival of the state is at stake. Widespread popular revulsion against nuclear weapons and widely held inhibitions on their use influence nuclear decisionmaking. These need to be further reinforced through codification into law.

A starting point for this initiative, however, could be a political commitment by all nuclear-weapon states that nuclear weapons shall not be used and that any country that uses them or threatens to use them shall face collective action and a total boycott by others. This approach is different from the Humanitarian Initiative, whose preparatory conferences India previously participated in, that is built on showcasing the inability of states to handle conditions created by nuclear use and hence argues for elimination so that a humanitarian catastrophe can be avoided. The call for banning the use of nuclear weapons is aimed at stripping their utility. If nuclear weapons could never be used, possession would confer less power and status. It would obviate a nuclear exchange between

nuclear-weapon states; it also would reassure the non-nuclear-weapon states and reduce temptations to proliferate.

However, for the threat of united action to be credibly conveyed, it is necessary that there be a common understanding of the danger and a sense of mutual trust and confidence, at least among the nuclear powers. As a country with a reasonably strong political, economic, and diplomatic voice and influence, India can play a role in catalyzing these issues. But that is effectively possible only if India is seen as part of the solution and not the problem. India's disarmament initiatives in the past were dismissed as a case of sour grapes—that because India did not have nuclear weapons, it did not want others to have them either. But today's nuclear-armed India offers to renounce its own weapons as part of a universal, verifiable mechanism. Its incomplete accommodation into the global nuclear order, nevertheless, leaves it open as a target. This ultimately deters India from playing a more active role in developing steps that need to be urgently taken to reverse developments that appear to consign mankind to living with the dangers of nuclear weapons.

NOTES

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- 3 See Manpreet Sethi, “Decoding Pakistan’s Nukes,” *Defense News*, August 11, 2013; Yossef Bodansky, “Pakistan’s Nuclear Brinkmanship,” Freeman Center for Strategic Studies, accessed February 7, 2016, http://www.freeman.org/m_online/bodansky/pakistan.htm; Tom Hundley, “Race to the End,” *Foreign Policy*, September 5, 2012, 6; and Shaun Gregory, “Pak Toxic Chaos Plan Changes Nuke Debate,” *Times of India*, March 6, 2011.
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- 9 George W. Bush and Manmohan Singh, “Joint Statement by President George W. Bush and Prime Minister Manmohan Singh,” press release, White House Office of the Press Secretary, July 18, 2005, <http://2001-2009.state.gov/p/sca/rls/pr/2005/49763.htm>.

- 10 The most prominent among these have been Mark Fitzpatrick, *Overcoming Pakistan's Nuclear Dangers*, Adelphi Book (London: International Institute for Strategic Studies, 2014); and Toby Dalton and Michael Krepon, *A Normal Nuclear Pakistan* (Washington, DC: Stimson Center and Carnegie Endowment for International Peace, 2015), <http://carnegieendowment.org/files/NormalNuclearPakistan.pdf>.
- 11 Sushma Swaraj, India's minister of external affairs, while speaking at the United Nations General Assembly on October 2, 2015, clearly made the link between terrorism and Pakistan when she said, "While on the subject of terrorism, I take the opportunity to share the challenges that we face in our ties with Pakistan. None of us can accept that terrorism is a legitimate instrument of statecraft. The world shared our outrage at the 2008 Mumbai terror attacks. . . . That the mastermind behind the attack is walking free is an affront to the entire international community. Not only have past assurances in this regard not been honoured but new cross-border terrorist attacks have taken place recently, in which two terrorists from across the border have also been captured alive." See "Full Text of Sushma Swaraj's UN General Assembly Speech," NDTV, October 2, 2015, accessed February 8, 2016, <http://www.ndtv.com/india-news/full-text-of-sushma-swarajs-un-general-assembly-speech-1225272>.
- 12 Shamil Shams, "Was Pakistan's ISI Directly Involved in the Mumbai Attacks?," *Deutsche Welle*, February 10, 2016, <http://www.dw.com/en/was-pakistans-isi-directly-involved-in-the-mumbai-attacks/a-19037878>; and Srinath Rao, "David Headley: Lashkar Told Me to Make Siddhivinayak Temple Video," *Indian Express*, February 10, 2016, <http://indianexpress.com/article/india/india-news-india/live-david-headleys-deposition-begins-in-2611-mumbai-attack-case/>.
- 13 In fact, the following statement by an Indian analyst made in the wake of the July 2015 terrorist attack on a police station in Punjab, which was sponsored by Pakistan according to all evidence found, indicates widespread support in the country for delinking itself from Pakistan. As journalist Minhaz Merchant writes, "Pakistan possesses whatever international credibility it has by being associated with India. Downgrade that relationship and you downgrade Pakistan internationally." See Minhaz Merchant, "Gurdaspur Attack: How India Can Make Pakistan Pay Without War," *Daily O*, July 27, 2015, <http://www.dailyo.in/politics/gurdaspur-attack-exposes-pakistan-as-a-state-sponsor-of-terrorism-modi-26-11/story/1/5255.html>. It may also be recalled that even a hint of the proposal to remerge Pakistan and India under a single bureau within the U.S. State Department received a sharp response in India. As former Indian national security adviser Shiv Shankar Menon stated, "It looks like a re-hyphenation of the India-Pakistan equation that is not in our interest. Our relationship has grown because it stood on its own, as it is important that bilateral relations with India won't be overshadowed by its relations with the region." See Suhasini Haidar and Varghese K. George, "U.S. Considers Re-Merger of India, Pakistan Desks," *Hindu*, February 1, 2016, <http://www.thehindu.com/news/national/us-considers-remerge-of-india-pakistan-desks/article8175829.ece>.
- 14 The draft nuclear doctrine prepared by the National Security Advisory Board in 1999 had accepted an unconditional no first use. This was qualified in the Cabinet Committee on Security (CCS) Note of 2003, which qualified no first use by stating that India reserved the right to respond to use of chemical and biological weapons against India with nuclear weapons. For

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PAKISTAN

PAKISTAN AND THE GLOBAL NUCLEAR ORDER

HOW PAKISTAN PERCEIVES its own position in the global nuclear landscape is tied to both regional security dynamics in South Asia and a changing global nuclear order. Among the most important of the regional security dynamics are Pakistan's military balance with its prime competitor, India, and the security situation in Afghanistan, including the future of the U.S. presence there. The changing nuclear order as seen from Islamabad's perspective entails the issues of the major powers legitimizing civil nuclear trade with India, a nuclear-weapon state that has not joined the Nuclear Non-Proliferation Treaty (NPT), and the absence of such an arrangement with Pakistan. Moreover, some members of the regimes that constitute the nuclear order are skeptical of outsiders such as Pakistan due to their own security and political considerations.

The global nuclear order encompasses treaties, regional agreements, unilateral moratoriums and declarations, and multilateral processes. The objectives of these agreements and processes are traditionally thought of as being fourfold: preventing proliferation; promoting civil nuclear technological cooperation; facilitating eventual nuclear disarmament; and ensuring the safety and security of nuclear operations. For Pakistan and states outside the nuclear nonproliferation regime, the record of attaining these objectives has been mixed. Indeed, there are several competing challenges to the ability of the nuclear order to fulfill these objectives.

The most important challenge is the relationship of the NPT outlier states, or the de facto nuclear-weapon states—India, Pakistan, and Israel—to the regime. These states have chosen to remain outside of the NPT based on perceptions of their surrounding security environment. Each South Asian outlier state, in particular, presents a unique set of challenges and opportunities to the nuclear order.

A second challenge is the trickle-down effect of the global arms race, including specific technological developments such as ballistic missile defense (BMD), into regional strategic milieus. These developments generate destabilizing trends that reduce space for regional arms control measures and have cascading effects on the nuclear order, affecting all of its components.

THE OUTLIER DILEMMA

Both India and Pakistan are declared nuclear-weapon states with professional and capable domestic nuclear governance structures and astute nuclear diplomatic experience abroad. From a Pakistani vantage point, the most relevant question for the nuclear order is whether both India and Pakistan will be treated equally as de facto nuclear powers or whether India will continue to be given preferential treatment. A related question is whether there exists the possibility for simultaneously upgrading both states' relationships to multilateral export control regimes and other institutions that constitute the nuclear order in a way that will bring about the South Asian states' informal integration into the system.

The nuclear order has generally been hostile to both India's and Pakistan's nuclear programs. Arrangements such as the Nuclear Suppliers Group (NSG), a multilateral export control regime, and sanctions regimes were developed in response to India's nuclear test in 1974 and Pakistan's subsequent nuclear activities. Despite such treatment, however, both countries are reasonably well connected to certain aspects of the nuclear order outside of the nonproliferation treaties. India and Pakistan are active participants in the Nuclear Security Summit process and are supportive of international initiatives to curb nuclear terrorism. Yet the status dilemma continues to affect both states', and particularly Pakistan's, broader relationships with the nuclear order.

After the 2008 U.S.-India Civil Nuclear Agreement, Islamabad continues to be concerned about the decision by the United States and other nuclear powers to utilize political criteria to conclude their respective nuclear agreements with India. This has significantly improved India's status in the prevailing nuclear order and its relations with the West, even as it legally remains an outlier state.¹

There is also the question of what effect the 2008 decision by the Nuclear Suppliers Group to exempt India from some nuclear trade rules had on the nuclear order. The exemption has resulted in multiple nuclear deals with not only the United States but also other important players in the global nuclear market that have sought to capitalize on India's multibillion-dollar nuclear market.² Proponents of these arrangements argue that the privileges accorded to India will create important leverage that will result in India supporting the objectives of the nuclear order.³ However, there is little evidence to back this assertion, as India has not committed to signing the Comprehensive Nuclear-Test-Ban Treaty. India's stance toward the Fissile Material Cut-Off Treaty negotiations remains ambiguous in the United Nations (UN) Conference on Disarmament, and it has made unconvincing commitments regarding the transparency of its nuclear fuel cycle. Given the absence of such commitments as a quid pro quo for the exemption by the NSG, the overall effect of the preferential treatment given to India has been negative for the nuclear order.

Civil nuclear cooperation between China and India is a possibility in the future, as the Chinese nuclear power industry improves in quality and develops better negotiating terms. Such cooperation would not be welcomed by Western suppliers, which often use political criteria as a guiding principle. Of course, other geopolitical factors will also determine whether such cooperation between China and India is feasible.

Since Islamabad believes that it is not possible for both India and Pakistan to be fully integrated into the global nuclear order as nuclear-weapon states according to the legal criteria set forth in the NPT (only states that detonated their nuclear devices prior to January 1, 1967, are classified as nuclear-weapon states),⁴ it expects political criteria to be applied on an equal basis for outlier nuclear states, as this would have a stabilizing effect on the nuclear order. The major problem with Pakistan's desire for equal political criteria is that the technical, political, and financial conditions for such an arrangement either do not exist or are much too risky for Pakistan.

Making these conditions more favorable could limit Pakistan's ability to pursue other regional political projects. These projects include sustaining Pakistan's political influence in Afghanistan (via tribal linkages and proxy groups), keeping India engaged in a low-intensity conflict unless conditions favorable to Pakistan emerge for conflict resolution, and strengthening the China-Pakistan axis.

Both India and Pakistan are declared nuclear-weapon states with professional and capable domestic nuclear governance structures and astute nuclear diplomatic experience abroad.

More broadly, in the age of globalization, a major unknown factor is whether the nuclear order will continue to deny the benefits of civil nuclear technology to the outlier states on the basis of selective application of political criteria, even though it is increasingly possible for states to acquire high-tech, dual-use technology and know-how. Or will the nuclear order adapt and develop new arrangements that allow the outlier states to partner with the existing order to achieve broader security and economic objectives?

Answering these questions is the key to guiding the nuclear order along a predictable path, rather than a highly uncertain one. Assuaging the concerns of the states that do not possess nuclear weapons about the implications of incorporating the outlier states into the order will remain a daunting challenge.

ASSESSING THE EFFECTS OF THE GLOBAL ARMS RACE ON SOUTH ASIA

The second challenge to the global nuclear order that is a priority for Pakistan is managing the spillover effects of the global arms race on the strategic milieu of South Asia. This challenge can be expressed in terms of systematic relationships—that is, the relationships among major powers at the international level and their spillover effects in the interstate politics of China, India, and Pakistan at the regional level. Specific aspects of the arms race at the international level—such as the development of offensive conventional strike platforms, including hypersonic weapons, and ballistic missile defenses—will have an impact on South Asian security and stability.

On this subject, U.S. security expert Michael Krepon rightly maintains that:

A serious competition between two nuclear-armed rivals is very hard to stabilize. When one rival increases its nuclear capability, the other does, too. . . .

Triangular competitions are never static. . . . Like two-party competitions, they can only be stabilized when disputes are resolved or set aside, direct trade increases, and rivals tacitly agree to restrain their nuclear capabilities.⁵

The triangular nuclear competition between China, India, and Pakistan is a challenge for the nuclear order for three reasons. First, mutual rivalries and competition affect these states' international diplomatic positions on nuclear issues. Second, the action-reaction process introduces military capabilities and doctrines in the region that undermine the objectives held by the existing nuclear order. Third, the space for introducing arms control measures, however small, is reduced.

Consider, for instance, the impact of hypersonic weapons on South Asian strategic stability. China, Russia, and the United States have embarked upon the testing of such platforms in recent years.⁶ It is reasonable to expect India to respond to such developments given the technological challenges it perceives from China in the long term.

Pakistan will be directly affected by any technological developments in India. Such futuristic capabilities will theoretically enable India to strike Pakistan's conventional and strategic targets in record time, leaving little or no opportunity for Pakistan to respond. As a result, Pakistan is likely to explore a range of response options, such as increasing the alert level of its nuclear forces, revisiting its recessed posture, and developing its own version of hypersonic missiles. The nuclear order has very limited options to prevent such a spillover effect in South Asia, and such limitations might be interpreted by Islamabad as tacit approval of Indian ambitions.

A similar case has been presented with the advent of BMD in South Asia. Although Pakistani officials are admittedly somewhat comforted by the limitations of the technology and the complications in the Indian BMD program, there is also an understanding that growing technical cooperation between India and the West on BMD systems has the potential to further upset strategic stability between the two South Asian states.⁷

Despite being under Missile Technology Control Regime sanctions, Pakistan has been able to respond to India's developments in the form of land- and air-launched cruise missiles capable of carrying both conventional and nuclear warheads.⁸ Pakistan will not engage in a bullet-for-bullet arms race with India, but it will optimize its response by achieving its own technological breakthroughs in critical areas, including cruise missiles. From the Pakistani perspective, the Indian BMD system has the potential to introduce false confidence that can result in preemption. Therefore, there will be little or no incentive in such an environment for Pakistan to increase the scope of existing conventional and nuclear confidence-building measures with India. Islamabad is even less likely to initiate any serious arms control discussions.

RECOMMENDATIONS

Given current circumstances, it is likely unrealistic for Pakistan to expect the global nuclear order to accommodate the complex array of challenges and for the states involved to act in an effective manner. The challenges outlined above are interconnected, and solving them will require the dedicated efforts of both the major powers and the South Asian states. All must invest political capital if predictability and stability are to be achieved in the nuclear order.

Pakistan itself is unlikely to make unilateral moves to change the status quo, due to the existing regional security environment and the unresponsive posture of its principal rival, India. It cannot become part of the NPT and will remain a *de facto* nuclear power. However, Pakistan should further increase and improve its diplomatic contact with members of the global nuclear community in order to narrow the gap between *de facto* and *de jure* nuclear-weapon status. This could include advocating for the formation of a P5+2 group—consisting of China, France, Russia, the United Kingdom, and the United States plus the South Asian *de facto* nuclear powers, India and Pakistan—as an informal forum for discussing issues pertinent to the global nuclear order and deterrence stability. In addition, Pakistan should undertake a diplomatic effort to establish a regional nuclear safety and security summit process.

Active diplomacy could also help Pakistan address the matter of political criteria and its broad-based application for status in the nuclear order, even though the chances of achieving a breakthrough are slim. Pakistan would be aided in this regard by changing its policy on the negotiation of the Fissile Material Cut-Off Treaty.⁹ Pakistan should start by no longer vetoing efforts in the UN Conference on Disarmament to start the negotiations on the treaty, as this would allow the negotiations to proceed even if Pakistan chooses not to join the final treaty.

To address the challenge of the disruptive effects of the global arms race in South Asia, Pakistan should seek to establish a trilateral dialogue with China and India to discuss regional security. Another key step it can take in this regard is to officially declare a nuclear doctrine. Of course, no state can afford to be completely transparent about its strategic intentions, and the same is true for nuclear postures and redlines. However, other aspects of Pakistan's nuclear policies that are already generally known can be documented and released as its nuclear doctrine. This will contribute to making the systemic relationship in South Asia more workable.

Pakistan also should develop new suggestions for mutual restraint, including promoting nondeployment of BMD systems. It should seek regional consensus on the rejection of externally induced new Cold War dynamics. Trends of cooperation and competition in South Asia will not wither away, but the future is likely to be more stable without the imposition of undue external geopolitical pressures.

NOTES

- 1 India has secured civil nuclear agreements for power generation with Canada, France, Japan, Russia, the United Kingdom, and the United States, and agreements for uranium supply from Australia and Kazakhstan. Although these agreements are at different stages of implementation, they have clearly raised India's nuclear profile and have resulted in tangible benefits despite India's not having signed the Nuclear Non-Proliferation Treaty (NPT).
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- 8 Hans M. Kristensen and Robert S. Norris, "Pakistani Nuclear Forces, 2015," *Bulletin of the Atomic Scientists* 71, no. 6 (2015), accessed February 12, 2016, <http://fas.org/wp-content/uploads/2015/10/Nov-Dec-Pakistan-FINAL.pdf>.
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REGIONAL DRIVERS OF PAKISTAN'S NUCLEAR OUTLOOK

PAKISTAN'S VIEW of the global nuclear order is mainly shaped by a regional outlook—centering on its tense relationship with India—rather than one that is international in nature. As a result, any event in the nuclear world that could have consequences for what Pakistan perceives as its vital security interests is considered destabilizing and therefore dangerous to peace and stability.

Pakistan's perception of the key challenges to the existing order emanates from its assessment of the implications of the U.S.-India nuclear deal and from the introduction of destabilizing technologies in South Asia. Pakistani policymakers have denounced the 2008 U.S.-India nuclear deal and a waiver by the Nuclear Suppliers Group (NSG), a multilateral export control regime, for nuclear trade with India as the institutionalization of exceptionalism, double standards, and discrimination. They argue that Pakistan should receive the same treatment in existing international nuclear technology arrangements as has been accorded to India.

However, any discussion in Pakistan about Islamabad's role in the nuclear order and its responsibility to make that order more sustainable and stable has been negligible. A first step could be for Pakistan to learn the art of reconciling with the irreconcilable by leaving the past behind and exploring options for constructive engagement that are based on a shared sense of responsibility.

WHITHER THE NUCLEAR ORDER?

Given the complexity of the current state of nuclear affairs, the most that can reasonably be claimed about the global nuclear order is that it comprises a web of nuclear relationships that reflects multiple, and often contradictory, trends. Together, these trends raise questions about the existing state of nuclear affairs and whether a global nuclear order even exists.

There are various ways to define a global nuclear order. For instance, it could refer to the current state of the existing nuclear world, a broad definition that would include the Nuclear Non-Proliferation Treaty (NPT) outliers as part of the larger nuclear order. Alternatively, a global nuclear order could be defined in normative terms, centered on peace and stability as globally shared goals. This second approach, which shifts the focus from what exists to what is desirable, is grounded in the assumption of shared vulnerabilities, as well as common goals and ideals, across the world.

However, such an understanding of a nuclear order could be far from practical for analytical purposes. A close look at contemporary trends suggests that the world today is divided along some obvious lines and some lines that are ambiguous. Even states sharing a common objective can approach it from competing and often contradictory perspectives. For instance, if stability and peace are common denominators, stability through deterrence and stability through disarmament are two competing models that are difficult to pursue simultaneously. Likewise, an incremental or step-by-step approach to problem solving versus an instantaneous approach also suggests two different methods of achieving the same goal.

The tensions resulting from contradictory views on shared objectives pose huge challenges to the continuity of the order and the prospects for peace and stability. The demand by nuclear-weapon states for universal enforcement of the rules in some cases and the creation of exceptions for certain states in others makes it even more complicated to think clearly about the way a global nuclear order should look.¹ These contradictions were on display at the NPT Review Conference held in New York from April 27 to May 22, 2015. Throughout the proceedings, the signs of tension, fatigue, and disappointment were too visible to ignore. The conference concluded on a low note. The very fact that the NPT member states still agreed to sit together and hold discussions to find ways to solve both new and perennial problems relating to nonproliferation and disarmament is evidence (albeit weak evidence) of the durability of the NPT and the nuclear order it upholds.

However, the promises of the NPT Review Conference and other multilateral forums such as the United Nations (UN) Conference on Disarmament remain unfulfilled.

Meaningful progress on disarmament, negative security assurances, and the prevention of an arms race in outer space remains far from satisfactory. Likewise, developing states are still pressing for enhanced assistance with peaceful uses of nuclear technology. Although the conclusion of the nuclear deal with Iran and the P5+1 (China, France, Russia, the United Kingdom, and the United States plus Germany) has been widely welcomed, its implications for stability in the Middle East are quite uncertain.²

The exclusion of non-NPT nuclear-armed states, including India, Israel, and Pakistan, also makes it difficult to define the nuclear order from an exclusively NPT-centric lens. Some international efforts seek to make the NPT boundary even more diffuse. For instance, a number of states that do not possess nuclear weapons, along with nongovernmental organizations, have launched the Humanitarian Initiative outside the scope of the NPT to call for a ban on nuclear weapons. But this initiative has not been able to secure meaningful support from the P5 states, and it remains doubtful that any of the other nuclear-weapon states will commit to it.

India and Pakistan have attended all three conferences organized under the Humanitarian Initiative, though Pakistan's interest in nuclear disarmament is still largely confined to political statements and point-scoring at international forums.³

Further challenging the structure of the existing order, the Nuclear Suppliers Group is debating membership for India,

and U.S. President Barack Obama has already pledged his support for India's entry into the NSG and other export control regimes.⁴ Negotiations on the Fissile Material Cut-Off Treaty (FMCT) remain stalled. Concerns over the threat of nuclear terrorism are seemingly increasing. The Nuclear Security Summits have made headway in addressing this issue, yet they have fallen short of making significant progress in eliminating the existing threat. India and Pakistan are reportedly investing in diversifying their existing arsenals and building sea-based, second-strike capabilities. There are also indications of troublesome doctrinal shifts in South Asia toward counterforce targeting and flexible response.⁵ Meanwhile, Russia is using nuclear weapons for posturing purposes in the crisis with Ukraine, and the United States continues to extend its nuclear umbrella to its North Atlantic Treaty Organization (NATO) allies.

These trends indicate that the existing nuclear order is characterized by parallel realities. On the one hand, there exists a broad consensus on the need for nonproliferation and disarmament, as reflected in the continuity of the NPT process and other simultaneous

Meaningful progress on disarmament, negative security assurances, and the prevention of an arms race in outer space remains far from satisfactory.

initiatives; on the other hand, indicators that reinforce the salience of nuclear weapons in international politics as a deterrent and a bargaining chip are also increasing.

It is instructive to note that the decades of structured and sustained efforts of both the nuclear haves and have-nots to promote nonproliferation and disarmament have been instrumental in shaping contemporary nuclear relationships.

LIVING IN A GRAY AREA

As a nonsignatory of the NPT, Pakistan remains outside the structure that supports what could be considered a formal nuclear order. However, as a state possessing nuclear weapons, Pakistan is relevant to the broader nuclear order defined in terms of managing nuclear relationships to ensure stability.

As a participant in multilateral and bilateral forums devoted to nuclear nonproliferation and disarmament, Pakistan observes international developments closely. A review of Pakistan's official positions maintained at the UN Conference on Disarmament and the UN Disarmament Commission suggests that Pakistan continues to reiterate several generally understood challenges to the nuclear order.⁶ These include repeated references to the lack of progress on general and complete disarmament, negative security assurances, and the prevention of an arms race in outer space. Pakistan recognizes the global threat of nuclear

terrorism and actively participates in the Nuclear Security Summit process.

Pakistan also took part in all three conferences organized by the Humanitarian Initiative, though it may not be committed to the idea of nuclear disarmament as long as it perceives a destabilizing conventional military asymmetry vis-à-vis India. While Pakistani officials occasionally talk about universal norms and values, Islamabad's view of a nuclear

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order is largely conditioned by its assessment of regional dynamics. It considers international developments in terms of their consequences for regional order and stability. A close examination of the statements issued by the National Command Authority and the Foreign Office, as well as an analysis of public discourse, reveals that the most pressing challenges to the nuclear order in Pakistan's view are those that have a direct bearing on what are perceived as its national security interests.⁷ These challenges include

the institutionalization of exceptionalism, double standards, and discrimination and the introduction of destabilizing technologies in the region as well as the world at large.

From Pakistan's vantage point, as described in 2013 by Zamir Akram, then Pakistan's permanent representative to the United Nations in Geneva, the "pursuit of selective non-proliferation, exceptionalism and discriminatory conditions for peaceful nuclear cooperation" is seen as a paramount challenge.⁸ It is argued that the conclusion of the U.S.-India nuclear deal and creation of the NSG waiver allowing India to engage in nuclear trade have institutionalized exceptionalism and discrimination in the nuclear world.

Pakistan finds exceptionalism and discrimination problematic less for normative reasons and more because of what it considers a direct impact on its security. Pakistan perceives the need to maintain nuclear parity with India as vital for neutralizing the conventional military asymmetry between the two states. Any development that could tilt the existing balance in India's favor is viewed in Islamabad as destabilizing. Further, Pakistan perceives these developments as a sign of India's acceptance into the existing nuclear order, while Pakistan remains excluded.

Pakistan also considers the introduction of new technologies—for example, missile defense, antisatellite weapons, offensive cyberwarfare capabilities, lethal autonomous weapon systems, armed drones, and conventional counterforce capabilities—to be potentially disruptive and a serious challenge for the export control regimes. In a formal statement, the Pakistan Mission to the United Nations highlighted that "the on-going growth and sophistication in several types of technologies has added further complexity to the disarmament and non-proliferation discourse and institutions."⁹

However, Pakistan's concerns regarding new technologies are not limited to their implications for international institutions and discourse. Pakistan perceives the development and likely introduction of some of these technologies in the South Asian context as highly destabilizing. Pakistan rationalizes its heavy investment in diversifying its missile capabilities as a way to neutralize an Indian missile defense system if and when one is put into place. Pakistan is also reportedly adamant about increasing its fissile material stockpile to strengthen the credibility of its nuclear deterrent against new technologies.¹⁰

Doctrinal thinking is changing in both India and Pakistan. This and other developments together could pose challenges to any efforts aimed at pursuing nonproliferation and disarmament at a global level. The stalemate in the UN Conference on Disarmament over the FMCT negotiations is instructive in this regard. Also, in the midst of global calls for devaluing nuclear weapons, an increase in the numbers of as well as the reliance on these weapons in the military doctrines in South Asia would prove counterproductive for nonproliferation and disarmament. For instance, missile testing will not stop as long as

modernization and diversification efforts continue. Likewise, the introduction of short-range ballistic missiles and development of a sea-based deterrent would increase pressure for deployment. As a result, the threat of nuclear terrorism, as well as the possible inadvertent use of these weapons, would escalate tremendously. Such trends could potentially be detrimental to global peace and stability and therefore require immediate attention.

NUCLEAR ORDER AS A MEANS TO ADDRESS INEQUALITY

Pakistan looks at the notion of a nuclear order more as a means and less as an end, and it believes the emerging trends could help Pakistan improve upon its existing condition. Pakistani officials and academics often say that Pakistan deserves its rightful place in the global nuclear order.¹¹ This raises questions such as which understanding of global order are officials and academics using to define what they consider to be Pakistan's rightful place.

In the short term, Pakistani decisionmakers aim to have Pakistan accepted in multilateral export control regimes, with a special focus on the Nuclear Suppliers Group. Because Pakistan is a nonsignatory of the NPT, such a claim is hard to explain unless it is made in the context of the 2008 India-specific exemption and India's current bid for membership in the NSG.

Despite many Pakistanis' previous discomfort with and criticism of the possibility of extending NSG membership to a non-NPT state, the political elite in Pakistan are now demanding the same treatment.¹² This again does not stem from a universal vision of nuclear nonproliferation and disarmament and is better explained by a narrow regional

outlook. Pakistan considers NSG membership a token of recognition of the nuclear-weapon capabilities of non-NPT nuclear-armed states. It is therefore largely a political, and to some extent economic, consideration. Even so, NSG membership is a short-term goal.

Pakistan's broader and more idealistic objective remains achieving legal and institutional arrangements in the global system that would meaningfully address

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structural inequalities, mitigate the security concerns of weaker states, and guarantee the right to equal security for all countries. Pakistani representatives have voiced these concerns at the UN General Assembly, the UN Security Council, the UN Conference on Disarmament, and other international forums.¹³ They have called repeatedly for the UN to address the issues that cause conflict and perpetuate security dilemmas—the protracted conflict between India and Pakistan over Kashmir being one example—and they have further urged the UN to promote peaceful resolutions to this and other lingering disputes. In Pakistan’s view, addressing the issues that cause conflict is the only effective way to promote nonproliferation and disarmament. This is a tall order of expectations that is difficult to articulate in deliverable terms.

Nonetheless, Pakistan can take some steps at home to improve upon its existing place in the global nuclear order and to meet at least some of these goals.

RECOMMENDATIONS

To achieve its objectives, Pakistan needs to learn how to reconcile with what appears to be an irreconcilable system. Highlighting the shortcomings of the international system is important, as is demonstrating willingness to appreciate its strengths and readiness to take responsibility to play as constructive a role as possible. Maintaining a positive outlook in the face of exceptionalism and discrimination and consistently working on persistent problems with innovative approaches may help Pakistan carve its own niche among the states that dominate the existing web of nuclear relationships. This approach may require Pakistani policymakers to work simultaneously on some policy areas.

First, Pakistan should internalize the norms and rules that in Pakistan’s view would shape a fairer global nuclear order. To begin with, the discourse in Pakistan on stability, nonproliferation, disarmament, and the role of the international community needs to be reframed. This would require an equitable assessment of international concerns and an objective analysis of issues pertaining to global trends as well as nuclear developments. Dismissing some of the genuine international concerns about the trends in South Asia and exaggerating the perception of biases against Pakistan only increase the trust deficit and shrink space for meaningful engagement. As important as it is to register protest over perceived injustice, so is the need to recognize the appreciation of, support from, and contributions by international actors in helping Pakistan secure its nuclear facilities and prevent crisis escalation. Expecting fair treatment from the international community would require maintaining fair standards and dealings vis-à-vis the same. It is also important to initiate a dispassionate discussion in Pakistan on its role and responsibilities as a

nuclear-armed state. This will help create a balance in managing expectations regarding Pakistan's rightful place in the global nuclear order. International cooperation may also require Pakistan to shift its outlook from parochial to collective interests. Entering into negotiations over the FMCT might be the first step in this regard.

Second, Pakistan should reassess its security calculations and policy choices. Reevaluating Pakistan's security needs would require a paradigmatic shift in the way they are conceptualized in the country. For this purpose, policymakers will need to make independent, indigenous assessments of the perceived utility of nuclear weapons versus their actual utility. Likewise, an informed appraisal of the impact of new technologies needs to be made. Looking at the policies and practices of major powers may not be helpful in this regard. Pakistan's experience of more than two decades with nuclear weapons has clearly revealed that nuclear weapons cannot deter all threats. Nor can nuclear weapons qualitatively increase the security of a state. Pakistan faces myriad security-related challenges that could be addressed only by building and strengthening governance institutions, investing in improving the quality of science and education, and building conventional military capabilities that have a direct utility in war zones. Diverting precious financial resources to expanding an arsenal that is not even usable in an actual military conflict and could only accentuate risks at home and skepticism abroad is counterproductive.

Revisiting security needs, developing an international outlook, and expressing readiness to constructively engage with the international community would allow Pakistan to play its part in creating a nuclear order that is both sustainable and stabilizing. In the process, Pakistan may get recognition for its efforts and favorable support for membership in the multilateral export control regimes. Constructive participation therefore may help Pakistan achieve both short-term and long-term goals.

NOTES

- 1 Among other examples, the current, unchallenged status quo allows the United States to provide extended deterrence to its allies, as this is considered a means to prevent further proliferation. Yet, the United States considers it unacceptable for any other nuclear-armed state to pursue the same path.
- 2 Robert Tait and Peter Foster, “Saudi Arabia’s King Salman Backs Israel Over Iran Nuclear Deal Concerns,” *Telegraph*, July 22, 2015, <http://www.telegraph.co.uk/news/worldnews/middleeast/saudi-arabia/11756739/Saudi-Arabias-King-Salman-backs-Israel-over-Iran-nuclear-deal-concerns.html>; Barak Ravid, “After Vienna Accord, Obama Offers Military Upgrade to Help Israel Swallow Bitter Iranian Deal,” *Haaretz*, July 15, 2015, <http://www.haaretz.com/israel-news/1.666205>; and Jay Solomon and Carol E. Lee, “Gulf States Want U.S. Assurances and Weapons in Exchange for Supporting Iran Nuclear Deal,” *Wall Street Journal*, May 2, 2015, <http://www.wsj.com/articles/gulf-states-want-u-s-assurances-and-weapons-in-exchange-for-supporting-iran-pact-1430585002>.
- 3 Policymakers in Pakistan are deeply concerned about the impending conventional military asymmetry vis-à-vis India. Nuclear weapons in their view are meant to deter not only a nuclear war but also a large-scale conventional war and are therefore a necessary evil for Pakistan. A careful analysis of Pakistan’s positions at the conferences organized under the Humanitarian Initiative indicates that Pakistan is skeptical regarding the viability of nuclear disarmament under the existing security environment. For more details, see *Reaching Critical Will*, 2016, www.reachingcriticalwill.org.
- 4 “U.S.-India Joint Statement,” White House Office of the Press Secretary, January 25, 2015, <https://www.whitehouse.gov/the-press-office/2015/01/25/us-india-joint-statement-shared-effort-progress-all>.
- 5 For instance, with the introduction of the Nasr missile (Hatf-IX) as a deterrent against the likelihood of India’s punitive strikes, Pakistan not only has lowered the threshold of its nuclear use option but it has also shifted from massive retaliation to a flexible response strategy. Likewise, the introduction of the Shaheen-III, a longer-range ballistic missile apparently meant to target the Andaman and Nicobar Islands, may entail a change in Pakistan’s targeting strategy from countervalue targets to a combination of countervalue and counterforce targets. See Adil Sultan, “Pakistan’s Emerging Nuclear Posture: Impact of Drivers and Technology on Nuclear Doctrine,” *Strategic Studies* 32, no.1 (Spring 2012); and “A Conversation With Gen. Khalid Kidwai,” transcript, Carnegie International Nuclear Policy Conference 2015, Carnegie Endowment for International Peace, March 23, 2015, <http://carnegieendowment.org/files/03-230315carnegieKIDWAI.pdf>.
- 6 “Statement by Ambassador Zamir Akram, Permanent Representative of Pakistan to the United Nations, Geneva at the First Committee Thematic Debate on Nuclear Weapons (68th Session of the UNGA),” October 18, 2013, accessed at United Nations Office for Disarmament Affairs, http://www.un.org/disarmament/special/meetings/firstcommittee/68/pdfs/TD_18-Oct_CL-1_Pakistan.pdf. Also see other statements by Pakistan’s representatives at “Reaching Critical Will,” 2016, www.reachingcriticalwill.org; and “Statement by Dr. Maleeha Lodhi, Permanent

Representative of Pakistan, at the 2015 Substantive Session of the United Nations Disarmament Commission (New York, 07 April 2015),” accessed at Pakistan Mission to the United Nations, http://pakun.org/statements/First_Committee/2015/04072015-01.php.

- 7 Mateen Haider, “Indo-US Nuclear Deal Will Negatively Impact South Asia: Sartaj Aziz,” *Dawn*, January 28, 2015, <http://www.dawn.com/news/1159804/indo-us-nuclear-deal-will-negatively-impact-south-asia-sartaj-aziz>; Inter Services Public Relations, press release 133/2013, September 5, 2013, https://www.ispr.gov.pk/front/main.asp?o=t-press_release&id=2361; Inter Services Public Relations, press release 506/2010, December 14, 2010, https://www.ispr.gov.pk/front/main.asp?o=t-press_release&id=1608.
- 8 Based on author’s conversations with officials and academics in Islamabad. Also see Haider, “Indo-US Nuclear Deal,” and “Statement Made by Mr. Shafqat Ali Khan, Deputy Permanent Representative at the CD Plenary,” June 11, 2013, accessed at Reaching Critical Will, http://reachingcriticalwill.org/images/documents/Disarmament-fora/cd/2013/Statements/11June_Pakistan.pdf.
- 9 “Pakistan’s Position Towards UN Reform: Disarmament and Non-Proliferation,” Pakistan Mission to the United Nations, http://pakun.org/unreform/index.php#Disarmament_and_Non_Proliferation.
- 10 International Panel on Fissile Materials, *Global Fissile Material Report 2013: Increasing Transparency of Nuclear Warhead and Fissile Material Stocks as a Step Toward Disarmament* (Princeton, NJ: International Panel on Fissile Materials, October 2013), <http://fissilematerials.org/library/gfmr13.pdf>. Also see Maleeha Lodhi, “Pakistan’s Nuclear Compulsions,” *News International*, November 6, 2012, <http://www.thenews.com.pk/Todays-News-9-141314-Pakistan%E2%80%99s-nuclear-compulsions> (page deleted); and Munir Akram, “Gambling Against Armageddon,” *Dawn*, October 26, 2014, <http://www.dawn.com/news/1140381>. Pakistan’s position over FMCT at the UN Conference on Disarmament also hints the same.
- 11 See, for example, remarks made by former chairman of the Joint Chiefs of Staff Committee Ehsanul Haq at a conference in Islamabad, quoted in “Global Nuclear Order: ‘Pakistan Deserves Its Rightful Place,’” *Express Tribune*, June 21, 2013, <http://tribune.com.pk/story/566174/global-nuclear-order-pakistan-deserves-its-rightful-place/>.
- 12 Abdul Manan, “Nawaz Pushes Obama on NSG Membership for Pakistan,” *Express Tribune*, February 12, 2015, <http://tribune.com.pk/story/837494/nawaz-pushes-obama-on-nsg-membership-for-pakistan/>.
- 13 “Pakistan Envoy Calls for Addressing Causes of Conflict,” press release, Pakistan Mission to the United Nations, May 14, 2015, <http://www.pakun.org/press-releases/2015/05142015-01.php>; “Statement by Ambassador Masood Khan, Permanent Representative of Pakistan at the 2013 Substantive Session of the United Nations Disarmament Commission,” April 1, 2013, accessed at Reaching Critical Will, http://reachingcriticalwill.org/images/documents/Disarmament-fora/dc/2013/statements/1April_Pakistan.pdf; “Vienna Conference on the Humanitarian Impact of Nuclear Weapons (8–9 December 2014)” (statement by Pakistan’s representative), accessed at

Reaching Critical Will, http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/vienna-2014/9Dec_Pakistan.pdf; and “Statement by Ambassador Zamir Akram, Permanent Representative of Pakistan at the Conference on Disarmament (CD),” August 27, 2009, accessed at Reaching Critical Will, http://reachingcriticalwill.org/images/documents/Disarmament-fora/cd/2009/statements/3session/27August_Pakistan.pdf.

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