

GAME THEORY: NEGOTIATION REPUTATION, PAYOFFS AND IMPACT ON THE SEANWFZ

BY
KARLA MAE PABELIÑA



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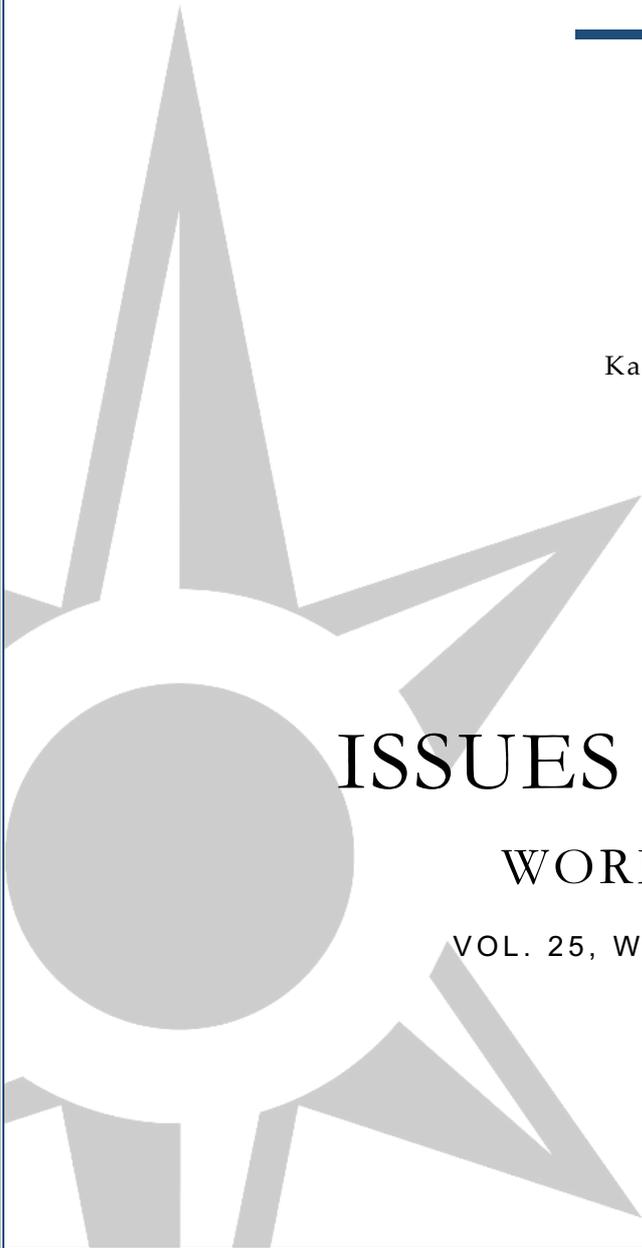
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About this report

The U.S. Defense Threat Reduction Agency (DTRA) sponsored this study to examine the broader weapons of mass destruction (WMD) environment in Southeast Asia 5–10 years into the future. The study focuses specifically on how the five key U.S. maritime partners in Southeast Asia—Indonesia, Malaysia, the Philippines, Singapore, and Vietnam—perceive China's expanding nuclear weapon and missile capabilities, potential U.S.-China nuclear parity and competition, and preferences for U.S. policy related to nuclear arms control and risk reduction measures.

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GAME THEORY: NEGOTIATION REPUTATION, PAYOFFS AND IMPACT ON THE SEANWFZ

By Karla Mae Pabeliña

This paper seeks to evaluate the behavior of the United States and China concerning the Southeast Asia Nuclear-Weapon-Free Zone (SEANWFZ) Treaty through the framework of game theory. Utilizing the sequential game model, it assumes that consultations between SEANWFZ state parties and nuclear-weapon states regarding the treaty protocol occur on a recurring basis. China's approach in these consultations, including its expressed willingness to sign the SEANWFZ Treaty protocol, reflects its broader strategy to establish a favorable reputation in negotiations. This strategy capitalizes on ASEAN's aspiration to shield the region from the strategic, economic, and humanitarian consequences of a potential nuclear conflict. By signaling readiness to accede to SEANWFZ, China enhances its perception management, fostering expectations within ASEAN that engagement with China could yield beneficial outcomes. In contrast, the United States is perceived as adopting a maximalist and inflexible stance regarding its criteria and position on negative security assurances. This perception risks undermining the United States' long-term credibility in non-proliferation, disarmament, and arms control. Moreover, it raises concerns about U.S. commitment to regional peace and security, further exacerbating uncertainties for Southeast Asian countries. Despite their security challenges vis-à-vis China, these states remain reluctant to become entangled in unrestrained great-power competition. Unless the United States presents a viable alternative to SEANWFZ, China's apparent willingness to take the lead in signing the protocol may incentivize Southeast Asian nations to accommodate China, provided such engagement contributes to regional security and neutrality. As U.S.-China strategic competition intensifies, the imperative for Southeast Asian states to assert their own interests will become increasingly pressing. With nine out of ten Southeast Asian countries having ratified the Treaty on the Prohibition of Nuclear Weapons (TPNW), the normative opposition to nuclear weapons has been further reinforced. Consequently, opportunities for constructive dialogue and diplomatic bridge-building are diminishing.

INTRODUCTION

In September 2023, Indonesian President Joko Widodo handed over the Association of Southeast Asian Nations (ASEAN) ceremonial gavel to Laos' Prime Minister Sonexay Siphandon, marking the turnover of Indonesia's one-year chairmanship of the regional grouping.¹ While it was an eventful year, 2023 ended with one particular goal of ASEAN not being met: securing the accession of nuclear-weapon states (NWS) to the protocol of the Southeast Asia Nuclear-Weapon-Free Zone (SEANWFZ) Treaty. This is an unfortunate outcome, given the urgent need for guardrails in the increasingly tense and volatile Indo-Pacific security environment.

Despite ASEAN's efforts, why have the NWS, particularly the United States and the People's Republic of China, continued to refrain from signing the protocol of the SEANWFZ Treaty? Furthermore, despite the NWS's stated commitment and expressed willingness to advance discussions with ASEAN on the protocol, as articulated in the Joint Communiqué of the P5 in December 2021, why has no substantive progress been achieved? Does this stalemate stem from the intransigence of the NWS, or does it reflect ASEAN's limitations in effectively negotiating the issue?

This paper examines the behaviors of the United States and China *vis-à-vis* the SEANWFZ, through the lens of game theory. While there are challenges in modeling complex security environments in game theoretical terms, game theory is a useful tool in evaluating interstate behavior. The utility of game theory as a descriptive, analytical, and normative framework is manifested in its extensive application in political science², economics³, and strategic studies⁴. This paper hopes to generate discussions on the complexities of China-United States interactions concerning confidence-building and arms control initiatives in Southeast Asia.

CHANGING AND UNCERTAIN REGIONAL ORDER

China's rise as one of the world's largest economies, along with the increase in its military capabilities and increasing assertive posture have created strategic and policy concerns due to China's unresolved territorial and maritime disputes with its neighbors, as well as the perception that the country seeks to leverage its economic clout for strategic gains towards altering the global order. In this regard, it has recently tried to put forward several

initiatives, from the Belt and Road Initiative to the Global Development Initiative, and Global Security Initiative. Assessments and official documents from both the US State Department (The Elements of China Challenge)⁵ and the US Defense Department (China's Military Power)⁶ indicate that the Chinese Communist Party (CCP) seeks to fundamentally alter the international order. China also continues to build up its military power, investing in the development of hypersonic and precision weapons, space, counter space, and cyber capabilities, and increasing its arsenal of nuclear weapons.

The United States now seeks to redress the ongoing shift in the regional balance of power, to preserve the global order put in place following World War II. A rare bipartisan consensus has emerged in the US Congress since 2020 determining that the United States should pursue a competitive foreign policy toward China, following perceived unfairness of trade practices evidenced by years of large trade deficits in China's favor, mounting concerns of intellectual property theft concerning sensitive technologies, and the abovementioned drive of China to displace the US.⁷ China's coercive activities towards Taiwan, the Philippines, Japan, and other neighbors, as well as its increasingly bellicose stances towards the US despite efforts at dialogue, have only heightened such fears.

Given evolving regional dynamics, ASEAN member-states are growing increasingly anxious about the intensifying geostrategic rivalries. ASEAN member-states have been reinvigorating their familiar tools and initiatives, such as the SEANWFZ, to assert ASEAN centrality and ensure regional security. A crucial pillar of the Zone of Peace, Freedom and Neutrality (ZOPFAN) concept, the SEANWFZ Treaty embodies the collective will of all Southeast Asian countries to abide by "normative and legal mechanisms to reduce the threat of nuclear conflict towards their own territories."⁸

THE VISIONARY ASPIRATIONS OF SEANWFZ

The drafting and deliberation of the Treaty is pivotal in building the collective identity of ASEAN. Cambodia, Myanmar, and Laos participated in the deliberations and attended the adoption of the Treaty during the Fifth ASEAN Summit in Bangkok in 1995, even before they became official members of the grouping.⁹ Vietnam was also just five (5) months into its membership when it participated in the discussions of SEANWFZ.¹⁰

¹ Irvina Falah, "Lao PDR to Assume the 2024 ASEAN Chairmanship," *Indonesia.Go.Id* (Portal Informasi Indonesia, 7 September 2023, <https://indonesia.go.id/kategori/asean-2023-variety/7515/lao-pdr-to-assume-the-2024-asean-chairmanship?lang=en>)

² See for example, Robert Jervis, "Realism, Game Theory, and Cooperation," *World Politics* 40, nos. 3 (1988): 317–49; William H. Riker, "The Entry of Game Theory into Political Science," in *Toward a History of Game Theory*, ed. E. Roy Weintraub (Durham, North Carolina: Duke University Press, 1992), 207–23.

³ See for example, Robert W. Rosenthal, "Games of Perfect Information, Predatory Pricing and the Chain-Store Paradox," *Journal of Economic Theory* 25(1981): 92–100; Avinash K. Divot and Barry J. Nalebuff, *The Art of Strategy: A Game Theorist's Guide to Success in Business and Life* (New York: W.W. Norton & Company, Inc, 2008).

⁴ See for example, Thomas C. Schelling, *The Strategy of Conflict* (Cambridge, Massachusetts: Harvard University Press, 1960); Steven J. Brams, *Superpower Games* (New Haven, Connecticut: Yale University Press, 1985).

⁵ The Policy Planning Staff, Office of the Secretary of State, *The Elements of the China Challenge*, November 2020 (Revised December 2020), <https://www.state.gov/wp-content/uploads/2020/11/20-02832-Elements-of-China-Challenge-508.pdf>

⁶ US Department of Defense, *Military and Security Developments Involving the People's Republic of China 2023*, A report to Congress pursuant to the National Defense Authorization Act for Fiscal Year 2000, as amended, <https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF>

⁷ Christopher Carolers and Taiyi Sun, "Bipartisanship on China in a polarized America," *International Relations* 0, no.0 (2023), <https://doi.org/10.1177/0047117823120148>

⁸ Karla Mae G. Pabeliña, "A Regional Effort Towards Nuclear Disarmament: The SEANWFZ Experience," in "Charting a roadmap for multiparty confidence and security building measures, risk reduction, and arms control in the Indo-Pacific," eds. David Santoro and Miles Pomper, *Issues and Insights*, November 2023, Pacific Forum International, <https://pacforum.org/wp-content/uploads/2023/12/Issues-Insights-DAVID-REVISED-1.pdf>

⁹ Medardo C. Abad, Jr., *The Philippines in ASEAN: Reflections from the Listening Room*, (Manila: Anvil Publishing, 2011), 84.

¹⁰ *Ibid.*

Furthermore, the SEANWFZ Treaty features a notable departure from the “soft regionalism” of ASEAN.¹¹ Decision-making within the SEANWFZ Executive Committee can alternatively be done by a two-thirds majority of the ASEAN members present, instead of consensus. The Treaty also incorporates concepts from the 1982 United Nations Convention on Law of the Sea, and verification measures reminiscent of the Comprehensive Nuclear-Test-Ban Treaty. There are also obligations for reporting and exchange of information, dispute resolution, and remedial measures. However, despite the visionary goal of the SEANWFZ Treaty, its full operationalization continues to face challenges. None of the nuclear-weapon states have yet acceded to its protocol.

Since its formulation, the NWS (United States, China, the Russian Federation, France, and the United Kingdom) have not been very keen on acceding to SEANWFZ. Quoting Indonesian Foreign Minister Ali Alatas in 1992, Bilveer Singh stated that SEANWFZ faced opposition from NWS because it is regarded as “undermining their doctrine of nuclear deterrence” and “establishing an unacceptable precedent for other regions.”¹² Recognizing the need to work closely with the NWS to bridge differences and push for the full implementation of the SEANWFZ, Philippine President Fidel Ramos urged Southeast Asian leaders to review the protocol to take into account the concerns of the NWS “to encourage them to remain faithful to the letter and spirit of the Treaty”.¹³

In 1996, US Assistant Secretary Winston Lord elaborated on the NWS’ concerns over the SEANWFZ before the House International Relations Committee in 1996. US Assistant Secretary Lord explained that the inclusion of the exclusive economic zones and continental shelves in the geographical limits of the SEANWFZ “raises questions about the consistency of the treaty with high seas freedoms and other principles embodied in the UN Convention of the Law of the Sea”.¹⁴ Further, he noted the “uncertainty over the scope of the treaty and the protocol obligations”; “precise nature of the legally binding negative security assurances”; “ambiguity of language concerning the permissibility of port calls which carry nuclear weapons”; and the “procedural rights of protocol parties to be represented before the various executive bodies set up by the treaty to ensure its implementation.”¹⁵

For its part, China was initially hesitant to accede to the Protocol of the SEANWFZ Treaty due to concerns over the treaty’s impact on territorial sovereignty and

maritime delimitation. However, following close consultations with the ASEAN member-states, China agreed to a modified protocol which includes a declaration that accession to the SEANWFZ Treaty will not affect territorial claims in the South China Sea.¹⁶ In 1999, China announced its intent to be the first nuclear-weapon state to accede to the protocol of the SEANWFZ Treaty. This change of heart by China is aimed at upstaging the other NWS and building closer rapport with the Southeast Asia states.¹⁷ China also wishes to “counter” the Western narrative of China’s threat in the region.¹⁸ There is also a perception that Russia will subsequently come on board with SEANWFZ as a gesture of political goodwill.¹⁹

ILLUSTRATING THE GAME THEORY MODEL

Game theory is considered “the principal theoretical tool for analyzing negotiations.”²⁰ The application of game theoretical models helps make sense of the logical difficulties inherent in the analysis of many conflict situations. Developed by J.von Neumann in 1928, the logic of game theory has been used to investigate a variety of real-world problems including interstate relations, arms control, and disarmament verification.²¹ Two or more *players*, presumed to be rational, are locked in a conflict situation where decisions will lead eventually to an *outcome*. Game theory is used to help explain and understand why players take the actions that they do, given assumptions about their strategy and preferences.

For this paper, negotiations between ASEAN and either the United States or China are structured as separate extensive form sequential games,²² as visualized in Figures 1 and 2. Available data broadly supports the assumption that ASEAN is engaging the United States and China simultaneously and separately. It is also assumed that China and the United States do not talk to each other about the SEANWFZ Treaty, let alone coordinate their responses.

In this study, we assume that ASEAN member-states, while far from being internally cohesive, operate as a coherent unit. The very existence of SEANWFZ indicates agreement of all the states covered in the zone, as well as a convergence of interests on wider goals and aspirations regarding prohibiting the use of and presence of nuclear weapons on their territories. We can thus safely assume that ASEAN’s preferred outcome is gaining the accession of all NWS without preconditions, with the worst case being the NWS’ continued rejection of SEANWFZ risking

¹¹ Amitav Acharya, *The Making of Southeast Asia: International Relations of a Region* (Singapore: ISEAS Publishing, 2012), 207.

¹² Bilveer Singh, “ASEAN, The Southeast Asia Nuclear-Weapon-Free Zone and the Challenge of Denuclearisation in Southeast Asia: Problems and Prospects” *Canberra Papers on Strategy and Defence No. 138* (2000), Strategic and Defence Studies Centre, Research School of Pacific and Asian Studies, The Australian National University, 41.

¹³ Opening Statement of His Excellency Mr. Fidel V. Ramos, President of the Philippines, during the Fifth ASEAN Summit in Bangkok, 11 May 2012, <https://asean.org/opening-statement-his-excellency-mr-fidel-v-ramos-president-of-the-republic-of-philippines/>

¹⁴ “Winston Lord: Southeast Asia Regional Security Issues- Opportunities for Peace, Stability, and Prosperity,” Statement of Ambassador Winston Lord, Assistant Secretary of State, Bureau of East Asian and Pacific Affairs, before the House International Relations Committee, Asia and Pacific Subcommittee, 30 May 1996, <https://1997-2001.state.gov/current/debate/530lord.html>

¹⁵ *Ibid.*

¹⁶ Bilveer Singh, “ASEAN,” 51.

¹⁷ *Ibid.*

¹⁸ *Ibid.*

¹⁹ *Ibid.*

²⁰ Rudolf Avenhaus and I. William Zartman, “Introduction: Formal Models of, in, and for International Negotiations,” in *Diplomacy Games: Formal Models and International Negotiations*, eds. Rudolf Avenhaus and I. William Zartman (Heidelberg: Springer Berlin, 2007), 2.

²¹ Rudolf Avenhaus and Thomas Krieger, “Game Theoretical Models for Arms Control and Disarmament Verification,” in *Nuclear Non-Proliferation and Arms Control Verification: Innovative Systems Concepts*, eds. Irmgard Niemeyer, Mona Dreicer, and Gotthard Stein (Cham, Switzerland: Springer Nature Switzerland AG, 2020).

²² Refer to Frank Zagare, “Extensive Form Games, Backward Induction, and Subgame Perfect Equilibria”, *Game Theory, Diplomatic History and Security Studies*, p.14-16

further loss of credibility of ASEAN initiatives for disarmament and regional security. It is also assumed that ASEAN member-states have engaged in lengthy consultations with NWS as regards the latter's concerns with the SEANWFZ Treaty and its protocol. Each of the NWS has its own contentions and reservations about the key provisions of the Treaty and its Protocols. However, due to the limitations of the study, the focus will be on the actions of the United States and China, given their inherent political, strategic, and economic interests in the zonal area of coverage.

It may be argued that neither France nor the United Kingdom has serious strategic concerns regarding transit privileges and freedom of navigation for their nuclear-powered ballistic missile submarines (SSBNs) as both countries maintain a Continuous At-Sea Deterrent (CASD) posture²³, that precludes their use of such critical assets for port visit or signaling missions to the SEANWFZ zonal area of coverage.²⁴ It would be unlikely therefore to see a pronounced deployment of these SSBNs unless France and the UK alter their nuclear doctrine and lower their threshold of nuclear weapon use.

There is no conflict with the Russian Federation's conditionality in acceding to the protocol with the letter and spirit of the SEANWFZ Treaty. Foreign Minister Sergey Lavrov has articulated that "all signatories comply with the Treaty's provisions not to have, not to create and not to deploy any elements of the nuclear weapons."²⁵ Furthermore, given the strong nuclear weapon taboo in Southeast Asia, it would be unlikely that any country in the region would allow port visits of nuclear-capable warships. At the same time, states in the region will not turn away such vessels if they are used for humanitarian or emergency purposes beneficial to the affected states. It might be recalled that the *Udaloy-class* destroyer *Admiral Vinogradov* visited the Philippines in October 2017 to deliver special military equipment in support of the Philippines during the Marawi Crisis.²⁶ While its arrival was welcomed, such a warship would have been prohibited from docking under a maximalist interpretation of the SEANWFZ Treaty, due to its being fitted with *Metel* anti-submarine missiles, known to be nuclear-capable.

GAME 1: ASEAN-CHINA

As mentioned earlier, an agreement was reached between ASEAN member-states and China in 1999 to put in a declaration, later a Memorandum of Understanding, clarifying that China's accession to the protocol will not in any way undermine its territorial claims in the South China Sea. While China still is interested in signing, expressing its intent again following the announcement of the trilateral military-technical arrangement between Australia, the United Kingdom, and the United States (AUKUS), China

has not been able to do so due to the desire of ASEAN member-states to have all the NWS sign together.²⁷

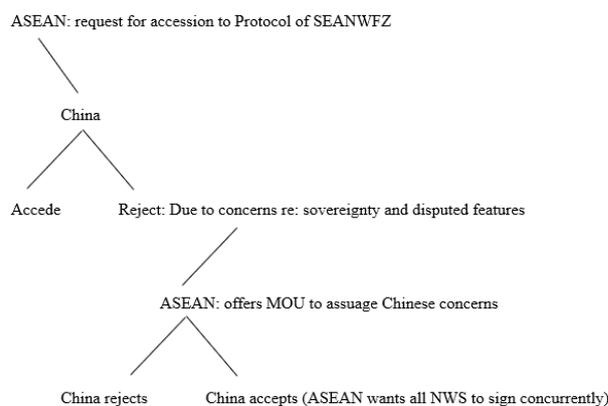


Figure 1

Interactions of ASEAN-China negotiations in sequential format

The positive attitude of China towards the SEANWFZ Treaty and its protocol resonates with its declared nuclear doctrine and policy. China has declared that it is "always committed to a nuclear policy of no first use of nuclear weapons at any time and under any circumstances, and not using or threatening to use nuclear weapons against non-nuclear-weapon states or nuclear-weapon-free zones unconditionally...."²⁸

However, various assessments indicate that China is not only modernizing its nuclear forces but seems to be actively expanding them, as evidenced by the 2021 discovery of approximately 300 missile silos built in Yumen Province.²⁹ China has a stockpile of approximately 440 nuclear warheads for delivery by land-based ballistic missiles, sea-based ballistic missiles, and bombers.³⁰ The US Department of Defense declared that China will produce over 1000 operational nuclear weapons by 2035.³¹ The veracity of such an assessment cannot be verified given the inherent ambiguity of China's inventory of plutonium, highly enriched uranium (HEU) and tritium, or warhead designs. Nonetheless, there are increasing concerns that in the event of a Taiwan contingency, China's dual-capable intermediate-range missile forces may play key roles.³² Their use and the inevitable countermeasures against them open risks of nuclear escalation.

Accession to the protocol of the SEANWFZ Treaty is expected to provide China with the moral high ground to persuade Southeast Asian states to limit if not completely deny, the movement of key US assets in the zonal area of

²³ See, Hans M. Kristensen and Matt Korda, "Nuclear Notebook: United Kingdom nuclear weapons 2021," *Bulletin of the Atomic Scientists* 77(2021), nos. 3, 153; Hans M. Kristensen, Matt Korda and Eliana Johns, "Nuclear Notebook: French nuclear weapons, 2023." *Bulletin of the Atomic Scientists* 79 (2023), nos. 4, 274.

²⁴ The Continuous At-Sea Deterrent (CASD) Posture indicates that if one of France's four *Triomphant-class* SSBNs or United Kingdom's *Vanguard-class* SSBNs will be on patrol, one will be preparing for patrol, one returning to the port, and the last one on maintenance.

²⁵ "Lavrov allows for option of Russia signing protocol on nuclear-free zone treaty in SE Asia," *TASS*, 13 July 2023, <https://tass.com/defense/1646317>

²⁶ Jorge Carino, "Russian Navy destroyers visit Manila," *ABS-CBN News*, 20 October 2017, <https://news.abs-cbn.com/news/10/20/17/russian-navy-destroyers-visit-manila>

²⁷ Hoang Thi Ha, "Why China Supports the Southeast Asia Nuclear Weapon-Free Zone," *ISEAS Yusof Ishak Institute Perspective* Issue: 2023, nos 45, 9

²⁸ Hans M. Kristensen, Matt Korda, Eliana Johns, and Mackenzie Knight, "Nuclear Notebook: Chinese nuclear weapons, 2024," *Bulletin of the Atomic Scientists* 80 (2024), nos. 1, 55.

²⁹ *Ibid.*, 49.

³⁰ *Ibid.*

³¹ US Department of Defense, *Military and Security Developments Involving the People's Republic of China 2023*, viii.

³² Hans M. Kristensen, Matt Korda, Eliana Johns, and Mackenzie Knight, "Nuclear Notebook: Chinese nuclear weapons, 2024," 57.

coverage, such as B-52 or upcoming B-21 bombers that have both conventional and nuclear missions, or USN surface ships and submarines, especially if the US pushes for the reintroduction of nuclear sea-launched cruise missiles (SLCM-N). Further, China can use its accession to the protocol of SEANWFZ as a cudgel to humiliate the United States and its allies, and further reinforce its alternative narrative that the US and allies are instigators of tension, rather than itself.

GAME 2: ASEAN-UNITED STATES

The interactions between ASEAN and the United States have been more complicated. From the beginning, the United States has indicated that it may only consider positively the SEANWFZ Treaty if it meets the following criteria:³³

- *The initiative for the creation of the zone should come from the States in the region concerned;*
- *All States whose participation is deemed important should participate;*
- *The zone arrangement should provide for adequate verification of compliance with its provisions;*
- *The establishment of the zone should not disturb existing security arrangements to the detriment of regional and international security or otherwise abridge the inherent right of individual or collective self-defense guaranteed in the Charter of the United Nations;*
- *The zone arrangement should effectively prohibit its Parties from developing or otherwise possessing any nuclear device for whatever purpose;*
- *The establishment of the zone should not affect the existing rights of its Parties under international law to grant or deny other States transit privileges within their respective land territory, internal waters, and airspace to nuclear-powered and nuclear-capable ships and aircraft of non-party nations, including port calls and overflights; and,*
- *The zone arrangement should not seek to impose restrictions on the exercise of rights recognized under international law, particularly the high seas freedoms of navigation and overflight, the right of innocent passage of territorial and archipelagic seas, the right of transit passage of international straits, and the right of archipelagic sea lanes passage of archipelagic waters.*

The other specific objections of the US were expressed by US Assistant Secretary Winston Lord during his speech at the Bureau of East and Pacific Affairs. The SEANWFZ Treaty was viewed by the US as “too restrictive” and it infringes upon the US’ defense, navigation, and security rights.³⁴ What such a position would imply is that the US

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was indirectly seeking the ASEAN state parties to redraft the Treaty and its protocol.

In 2012, the NWS came close to signing the protocol of the SEANWFZ Treaty after concessions were given by ASEAN member-states on transit passages and negative security assurances. However, following last-minute submission of reservations by the NWS (except China), ASEAN decided to postpone all signing until a thorough review. In 2019, the NWS again indicated their willingness to resume consultations with ASEAN state-parties on the protocol.

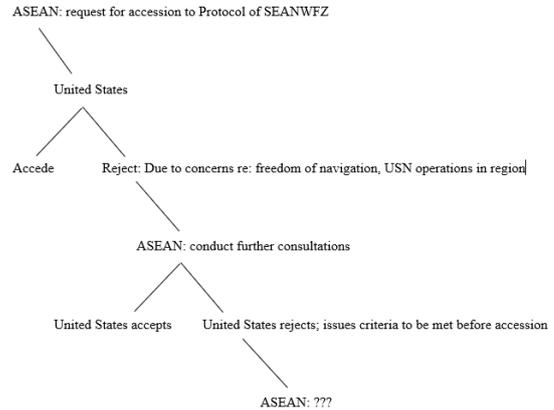


Figure 2
Interactions of ASEAN-US negotiations in sequential format

It may be argued that circumstances have evolved that should have affected the strategic calculations of the US as regards the SEANWFZ Treaty and its protocol. Since 1991, the United States has unilaterally withdrawn all non-strategic nuclear weapons from its naval forces. In 1994, the Clinton administration decided that surface ships would no longer have the capacity to launch nuclear weapons. In 2010, the Obama Administration ordered the retirement of all nuclear sea-launched cruise missiles, ending the deployment of nuclear weapons on ships, attack submarines, and land-based naval air bases.³⁵ Furthermore, all US non-strategic nuclear weapons, except gravity bombs for United States Air Force (USAF) fighter bombers, have also been retired.³⁶

The US’ treaty allies (Philippines and Thailand) and security partners (Vietnam, Indonesia, Malaysia, Cambodia, Laos, and Brunei Darussalam) have entrenched their SEANWFZ obligations of not allowing for the deployment, transfer, possession of nuclear weapons or nuclear explosive devices in their territories by joining the Treaty on the Prohibition of Nuclear Weapons (TPNW). By doing so, these states reject the concept of nuclear deterrence by committing not to “assist, encourage or induce, in any way, anyone to engage in any activity” and “seek or receive any assistance, in any way, from anyone to engage in any activity prohibited” under the TPNW,

³³ United States State Department, *Nuclear Weapon Free Zones*, <https://2009-2017.state.gov/t/isn/anwzf/index.htm>

³⁴ Bilveer Singh, “ASEAN,” 44.

³⁵ Hans Kristensen, “Declassified: US Nuclear Weapons at Sea,” *Federation of American Scientists*, <https://fas.org/publication/nuclear-weapons-at-sea/>

³⁶ Hans Kristensen and Matt Korda, “Nuclear Notebook: United States nuclear weapons, 2023,” *Bulletin of the Atomic Scientists* 79 (2023), nos. 1, 31.

including accepting extended nuclear deterrence for themselves.³⁷

The Philippines, which is the staunchest ally of the United States in Southeast Asia, has repeatedly rejected the notion that nuclear weapons contribute to stability and security. Even in the face of Chinese aggression in the West Philippine Sea, the Philippines during the 2022 TPNW First Meeting of State Parties indicated that “nuclear weapons must not be used for resolving international disputes, nor in the security and military doctrine of any nation.”³⁸ A similar position is expressed by the Philippines during the 10th Review Conference of the Nuclear Non-Proliferation Treaty High-Level Segment,³⁹ and the 2023 High-Level event on the Fissile Material Cut-Off Treaty. In his remarks, Secretary Enrique Manalo stated that “nothing ever justifies the use of nuclear weapons yet obsolete security concepts anchored on nuclear weapons continue to drive policies in many countries.”⁴⁰

Finally, the ASEAN Foreign Ministers on 30 December 2023 affirmed the importance of “maintaining and promoting peace, safety, security, stability, and freedom of navigation in and overflight above the maritime sphere of Southeast Asia, particularly the South China Sea.”⁴¹ Southeast Asian states also have not been receptive to China’s suggestion for the parties of the Code of Conduct (COC) in the South China Sea to refrain from holding joint military exercises with countries outside the region unless with prior notification and consent of concerned parties.⁴² This highlights that Southeast Asian countries continue to recognize the value of engagement with external powers, including the United States, to support regional peace and security. Military exercises which do not involve nuclear weapons, may be seen as enhancing the capacity of Southeast Asian states for self-defense and deterrence.

However, increased threat perceptions and concerns over the capacity of the United States to deter two nuclear-armed adversaries have led to calls for the re-evaluation of the size and composition of its nuclear force. A perceived “decreasing (of) US and allies conventional military advantages in Asia” has led the Congressional Commission on the Strategic Posture of the United States to recommend that US strategy would have to be “altered to increase reliance on nuclear weapons to deter or counter opportunistic or collaborative aggression”.⁴³ The United States, the Commission argues, needs to deploy multiple warheads in its Sentinel intercontinental ballistic missiles (ICBMs), increase the nuclear of deployed long-range

standoff weapons, increase production of B-21 bombers, *Columbia*-class ballistic missile submarines (SSBNs) and their Trident ballistic missile system, and accelerate development and deployment of D5LE2.⁴⁴ Furthermore, non-strategic nuclear forces will have to be deployed by the United States in Europe and the Indo-Pacific theater to “deter adversary use and offset conventional superiority”.⁴⁵

Given these considerations, it may be argued that the discourse of “deterrence and assurance gaps”⁴⁶ within the United States, including Congressional pressure to develop and bolster non-strategic nuclear weapons to degrade, disrupt, defeat or deter adversaries, would pose a challenge to the spirit and letter of the SEANWFZ Treaty. In the event of a Taiwan conflict, the United States may also consider limited nuclear use targeted against China’s concentrated amphibious landing forces to secure victory or prevent defeat.⁴⁷

A greater reliance on nuclear weapons will affect the United States’ credibility as a leader in arms control, nonproliferation and disarmament. It may also give the Southeast Asian states cause to exclude the country from the region and encourage denial of the US and its allies’ ability to exercise freedom of navigation and overflight for fear of possible nuclear confrontation, regardless of whether such exclusion would fall into the hands of the US’ competitors.

NEXT MOVES FOR ASEAN

As it stands, the accession of the NWS to the protocol of the SEANWFZ Treaty remains in limbo. In a two-level game between the United States and China, this situation where no NWS accedes is, for better or worse, the game’s Nash equilibrium, described as the combination of strategies in which no player can improve its payoff by unilaterally changing its strategy. However, this equilibrium only holds so long as there is a certain ambiguity regarding what the other party will do. There is a strong possibility that, given the US’ public reservations toward SEANWFZ and assessments of its eroding conventional deterrence capability vis-a-vis growing PLA conventional power, China may soon ascertain that the United States will not sign at all to preserve its deterrence options. Barring other strategic or political considerations, China could attempt to push for accession, if only to take advantage of US intransigence and improve its influence with a Southeast Asia fearful of any nuclear escalation.

³⁷ Article 1 on “Prohibitions,” *Treaty on the Prohibition of Nuclear Weapons*, https://treaties.un.org/doc/Treaties/2017/07/20170707%2003-42%20PM/Ch_XXVI_9.pdf

³⁸ Philippine Statement delivered by H.E. Irene Susan B. Natividad at the General Exchange of Views, 2022 TPNW First Meeting of State Parties (1MSP), 21-23 June 2022, Vienna International Center, Vienna, <https://documents.unoda.org/wp-content/uploads/2022/06/Philippines.pdf>

³⁹ Philippine Statement delivered by H.E. Carlos D. Sorreta, Undersecretary of Foreign Affairs for Multilateral Affairs and International Economic Relations, 10th Review Conference of the Nuclear Non-Proliferation Treaty (NPT) High-Level Segment, [https://unoda-documents-library.s3.amazonaws.com/Treaty_on_the_Non-Proliferation_of_Nuclear_Weapons_-_Tenth_Review_Conference_\(2022\)/Statement_by_the_Philippines.pdf](https://unoda-documents-library.s3.amazonaws.com/Treaty_on_the_Non-Proliferation_of_Nuclear_Weapons_-_Tenth_Review_Conference_(2022)/Statement_by_the_Philippines.pdf)

⁴⁰ Opening Remarks of SFA Manalo on the High-Level on FMCT, 12 September 2023, [Opening Remarks of SFA Manalo on the High-Level Event on FMCT \(dfa.gov.ph\)](https://www.dfa.gov.ph/Opening-Remarks-of-SFA-Manalo-on-the-High-Level-Event-on-FMCT)

⁴¹ ASEAN Foreign Ministers’ Statement on Maintaining and Promoting Stability in the Maritime Sphere in Southeast Asia, 30 December 2023, [Final-Draft-ASEAN-FMs-Statement-on-Maintaining-and-Promoting-Stability-in-the-Maritime-Sphere-in-SEA.pdf](https://asean.org/ASEAN-FMs-Statement-on-Maintaining-and-Promoting-Stability-in-the-Maritime-Sphere-in-SEA.pdf)

⁴² Collin Koh, “Confidence and Security Building Measures in Southeast Asia’s Maritime Domain,” *Asia-Pacific Leadership Network*, July 2023, <https://cms.apln.network/wp-content/uploads/2023/07/Collin-Koh-Paper-2-170723.pdf>

⁴³ Institute for Defense Analyses, *America’s Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States*, October 2023, 31 [strategic-posture-commission-report.ashx \(ida.org\)](https://www.ida.org/strategic-posture-commission-report.ashx)

⁴⁴ *Ibid.*, 30.

⁴⁵ *Ibid.*, 35.

⁴⁶ Patty-Jane Geller, “The U.S. Must Strengthen Its Nuclear Forces to Deter Growing Nuclear Threats,” *The Heritage Foundation*, 30 November 2022, <https://www.heritage.org/defense/report/the-us-must-strengthen-its-nuclear-forces-deter-growing-nuclear-threats>

⁴⁷ Gregory Weaver, “The Role of Nuclear Weapons in a Taiwan Crisis,” *Atlantic Council, Scowcroft Center for Strategy and Security Issue Brief*, 22 November 2023, <https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/the-role-of-nuclear-weapons-in-a-taiwan-crisis/>

For their part, Southeast Asian states are in the position that the NWS with no outstanding reservations should accede to the protocol as soon as possible, in keeping with their primary aim of the Treaty, to insulate themselves from nuclear conflict.

However, certain measures should be adopted to ensure that SEANWFZ is transparent and is not seen as a vehicle to advance certain countries' machinations. In particular, the language of the 1999 Memorandum of Understanding between China and ASEAN member-states should not in any way legitimize the sovereignty or sovereign rights of any of the claimant states in the South China Sea. It should also be consistent with universally recognized principles of international law, including the 1982 United Nations Convention on the Law of the Sea. Furthermore, to be able to fully implement the aspirations of SEANWFZ, Southeast Asia must continue to build technical capacity to develop the regional nuclear safety regime, which strengthens the Treaty's verification.

Moving forward, Southeast Asian states must manifest resolve to take responsibility for their own security, both as a matter of asserting their sovereignty and to resolve the contradictions inherent in pushing for a "zone of peace, freedom and neutrality" while at the same time being dependent or beholden to external security guarantees. Paragraph 2 of ZOPFAN enjoins Southeast Asian countries to "make concerted efforts to broaden the areas of cooperation which could contribute to their strength, solidarity and closer relationship."⁴⁸

CONCLUSION: A LIGHT AT THE END OF THE TUNNEL?

When the first idea of a nuclear-weapon-free zone encompassing inhabited areas in the world was conceived and explored, few might have been confident it could actually be launched, or even be fully realized. Even as the world just barely averted a nuclear war in the Cuban Missile Crisis, the circumstances were not conducive for nuclear-weapon-free zone negotiations, as the Cold War carried on. However, the Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco) was adopted in 1967. All of the NWS have acceded to its protocol. Succeeding nuclear-weapon-free zones were then established in the South Pacific, Africa and Central Asia. SEANWFZ follows this trend as an instrument not just to defy the logic of nuclear weapons, but to ensure regional peace and security.

Examining SEANWFZ's history since its establishment shows the difficult series of negotiations and backs and forths between ASEAN (among themselves) and with NWS, especially the United States and China, highlighting the conflict between the lofty aspirations of SEANWFZ on one hand, and the imperatives of sovereignty, operational considerations, and geopolitics on the other. The application of game theory, even in a simplified form as attempted in this paper, illustrates this complex interplay, and how states' competing desired outcomes have led to the current predicament.

It is hoped that all involved parties, ASEAN and the major powers, will eventually converge on an agreement regarding the accession of the NWS to SEANWFZ. For all its challenges, SEANWFZ still has the potential to be beneficial not just to Southeast Asian states but even to great powers. Much needs to be done to engender this convergence, both on the part of the competing nuclear weapons states, and on ASEAN's member states. This work must continue, to have a chance at a just, peaceful, and prosperous region.

Figure 3

A general two-level game describing US and China's payoff is shown in normal form.

| | | PRC | |
|-----|-----------------------------------|-------------------------------|-----------------------------------|
| | | <i>Accede to the Protocol</i> | <i>Not Accede to the Protocol</i> |
| USA | <i>Accede to the Protocol</i> | 2,3 | 2,0 |
| | <i>Not Accede to the Protocol</i> | 0,2 | 0,0 |

⁴⁸ ASEAN, 1971 Zone of Peace, Freedom, and Neutrality Declaration. Adopted in Kuala Lumpur, Malaysia on 27 November 1971, <https://www.pmo.gov.my/wp-content/uploads/2019/07/ZOPFAN.pdf>

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