



FISIP DEPARTMENT OF
INTERNATIONAL
RELATIONS

IR-UI COMMENTARIES

IR-UI Commentaries is a platform for academics and practitioners to share their thoughts and views on issues related to International Relations (IR), established by IR Universitas Indonesia in 2020. The ideas are presented from the perspective of International Security, International Political-Economy, Transnational Society, or the multidimensional approaches across the three clusters. It is quarterly and jointly published by the IR-UI and Centre for International Relations Studies (CIReS) – Faculty of Social and Political Sciences Universitas Indonesia with International Standard Serial Number (ISSN). The analysis presented here represents the views of the author(s) and not the institutions they are affiliated with, the IR-UI and CIReS.

Vol. V/ No. 6 | September 2024

AUKUS and the Future of Nuclear Non-Proliferation

Ali Abdullah Wibisono¹ & Anastasia Artantri Widyautami²

Summary

The establishment of AUKUS as a maritime alliance in the South Pacific has raised concerns about the potential proliferation of nuclear weapons in the region. The plan to provide Australia, a non-nuclear weapon state, with SSNs could be viewed as taking advantage of the loopholes in the Nuclear Non-Proliferation Treaty (NPT), including its Comprehensive Safeguard Agreement (CSA) with the International Atomic Energy Agency (IAEA). The agreement between Australia and the IAEA does not impose further restrictions on the development of nuclear material and technology for purposes other than nuclear weapons proliferation. This shortcoming could potentially encourage other countries to use similar justifications to install their own nuclear naval reactors, free from the IAEA inspection. With that possibility coming to a realisation, Indonesia submitted a working paper, "Nuclear Naval Propulsion" to the 2022 UN Review Conference of the Parties to the NPT, expressing concerns about potential issues arising from the exchange of nuclear technology between NWS and NNWS. This commentary concludes that while nuclear weapons non-proliferation diplomacy must continue, the NPT and its additional protocols must adopt some changes. Such amends must include formulating strict conditions for non-nuclear weapon states to be able to build nuclear technology that can be integrated into their weapons platform and exempted from IAEA inspections.

Keywords: *AUKUS, Comprehensive Safeguard Agreement, Nuclear Non-Proliferation, IAEA*

¹ Associate Professor in International Relations Department, Faculty of Social and Political Sciences, Universitas Indonesia.

² Teaching Assistant in International Relations Department, Faculty of Social and Political Sciences, Universitas Indonesia

Introduction

The realization of AUKUS - a trilateral security pact between Australia, the United Kingdom (UK), and the United States (US), declared publicly on 15 September 2021- through deployments of nuclear submarines (SSN) can be said to bring an urgency for Southeast Asian countries, including Indonesia, not only on the direction of naval modernization and regional arrangement of maritime security but also to determine their stance regarding the non-proliferation of nuclear weapons. The latter is the focus of this article.

The first pillar of AUKUS is the procurement of SSN for Australia by 2040, and this means that there is a potential for the proliferation of nuclear weapons in Southeast Asia due to the fact that Australia as a non-nuclear weapon state (NNWS) will operate nuclear material and technologies transferred from nuclear-weapon states (NWS) while keeping its status as NNWS. The fact that the declaration of Southeast Asia Nuclear Weapons Free Zone (SEANWFZ) in 1995 has yet to secure the agreement of any of NWS to its protocol does not help to guarantee that nuclear weapons proliferation would not take place in the region (Hamel-Green, 2021). Indeed, if the SEANWFZ would have any efficacy in holding against proliferation of nuclear weapons, ASEAN must pursue the inclusion of its member states' Exclusive Economic Zones (EEZs) as a space that is free from being used for the launch of nuclear weapons, whether directed within or beyond the zone.

One's reading into the plans of AUKUS cooperation until the 2030s may suggest that Southeast Asia may become a host to a busy traffic of SSNs operated by AUKUS – with a total of 8 SSNs for AUKUS alone – as well as China, India, Pakistan, Russia and North Korea (Rusli & Bautista, 2023). At the time of writing, the AUKUS countries are in the development stage of the industrial ecosystem and human resources of the Royal Australian Navy (RAN) personnel to operate SSNs, as announced by the Submarine Tendered Maintenance Period (STMP) on board HMAS Stirling in the state of Western Australia on September 23, 2024 (Vignesh, 2024). In 2027, the US and UK will maintain their constant SSN presence in the Indo-Pacific through the Submarine Rotational Force-West (SRF-West) mechanism marked by the deployment of four US Virginia-class SSNs and one UK Astute-class SSN, with the aim of strengthening deterrence in the Indo-Pacific through the forward deployment of their SSNs (UK Gov., 2023). This is the first phase of the AUKUS implementation which will continue with the transfer of 3 Virginia-class SSNs from the US to Australia in the early 2030s before the new SSN-AUKUS are finally operated by Australia in the late 2030s (U.S. DoD, 2024).

The operation of these SSNs must be considered as a strategic challenge to Southeast Asian littoral states whose waters will host their traffic and therefore must be ready with contingencies involving nuclear submarines. To some extent, AUKUS has boosted Indonesia's drive to have better control over its critical waters that may facilitate the transit of submarines such as Lombok-Makassar Strait or the Ombai-Wetar Strait to defend its sovereignty and strategic interests. Indeed, AUKUS may lead Indonesia to reassess its naval modernization towards strengthening its undersea capability to balance its powerful southern neighbour as indicated by procurement of long-range Scorpene-class submarines and planned acquisition of at least 12 maritime patrol aircraft (MPAs), coastal defense missiles systems, modern warships (Vojetta & Ashar, 2023).

This article outlines the existing plans for the realization of AUKUS Pillar 1 both in terms of what is currently undertaken and what will take place until 2030s. It also analyses the implication of AUKUS on the future of nuclear weapons non-proliferation. Lastly, it provides a recommendation for international non-proliferation diplomacy in the wake of AUKUS.

AUKUS and Loophole in the NPT

Australia's possession and operation of nuclear naval reactor falls outside of the International Atomic Energy Agency (IAEA)'s inspection and verification (also known as safeguard) mechanisms due to its categorization as a non-proscribed military activity, i.e. military activities that are non-explosive in nature, including naval reactors used in Nuclear Naval Propulsion (NNP) technology. Due to the fact that the NNP technology will be installed in submarines, naval reactors and the nuclear material it utilizes, including High-Enriched Uranium (HEU) will be outside the remit of IAEA's safeguard mechanism. This means that nuclear material that Australia acquires for its naval reactors will be unsafeguarded or outside the scope of IAEA's inspection and verification (Thomas-Noone & Medcalf, 2015).

Australia has emphasized that its nuclear technology will not be used as a weapon but rather solely for the purpose of NNP technology. At the moment, NNP is not specifically categorized in the Non-Proliferation Treaty (NPT) and its implementation instrument the Comprehensive Safeguard Agreement (CSA) and its additional protocols. Australia is in the process of negotiating with IAEA to include the technology in the NPT as a technology that is excluded from the nuclear weapons category. Article 14 of Australia's Comprehensive Safeguard Agreement (CSA) with the International Atomic Energy Agency (IAEA) states that the use of nuclear material in non-proscribed military activity cannot be considered as the violation of IAEA safeguards in place for preventing

nuclear proliferation. In other words, the possession and operation of the NNP technology is not a subject of inspection by the IAEA (IAEA, 1974). However, this CSA between Australia and IAEA does not regulate the use of NNP technology, and thus the use of NNP technology by Australia as an NNWS is a loophole exploited by AUKUS to allow Australia as an NNWS the ownership of nuclear-powered submarines. What follows from this is the IAEA cannot conduct inspections to ensure that there is no proliferation of nuclear material and technology due to their use in weapons platforms, especially on submarines because states must keep their submarines locations and all information regarding their operations absolutely secret. So nuclear material - such as the HEU used for nuclear reactor fuel for submarines and nuclear warheads - can be exempted from IAEA inspections.

AUKUS and Potential for Nuclear Proliferation

The loophole that AUKUS is currently exploiting to build nuclear-powered ships could potentially be exploited by other countries. Iran informed the IAEA in 2018 that it planned to build a NNP technology and created a pretext to remove nuclear material from IAEA inspections (IAEA, 2018). However, it is likely that sanctions and military action and backlash including from China and Russia have deterred Iran from pursuing this plan.

If Australia succeeds in excluding the HEU it acquires from the US and UK from IAEA inspections, there could be other countries seeking to install nuclear reactor into their submarines and the cost of backlash that they will potentially receive will be more tolerable (Acton, 2021). Countries seeking to acquire nuclear weapons can calculate that by using Australia's case as a precedent, the pressure and losses arising from the choice to build nuclear propulsion for their submarines and exclude the needed nuclear material from IAEA's safeguard will be considered tolerable. On the other hand, the US and its allies will find it difficult to campaign for sanctions or retaliations against countries seeking to own nuclear technology for their weapons systems as Australia has done, because encouraging Australia to exploit the loophole of the NPT regime to operate NNP technology while pressuring other NNWS to conduct something similar will have been seen as an application of double standards.

Therefore, following AUKUS implementation the entire NPT regime might lose its ability to build deterrence on nuclear weapons proliferation efforts. AUKUS will establish a precedent for NNWS in acquiring nuclear material – particularly High Enriched Uranium – that is used for non-proscribed military activity unsafeguarded by the IAEA.

An Indonesian member of International Campaign for the Abolition of Nuclear Weapons (ICAN) Muhadi Sugiono has already warned that AUKUS might be an impetus for states with in-depth knowledge of nuclear technology to develop nuclear-powered submarines or other conventional weapons that are powered by nuclear (KOMPAS, 2023).

Indonesia's Non-Proliferation Diplomacy

To minimize the impact or prevent the possibility of nuclear weapons proliferation following the operationalization of AUKUS, specifically the possession and operation NNP technology by Australia, Indonesia has proposed that the existence of nuclear-powered submarines is also regulated in the Non-Proliferation Treaty regime. Indonesian Foreign Minister Retno LP Marsudi at the Disarmament Conference, February 2023, reminded that world efforts over the past 25 years to encourage disarmament have not produced progress. In fact, these efforts have stopped and tend to reverse, countries in the world continue to try to master or obtain nuclear weapons technology (Leksono, 2023).

Indonesia's foreign policy campaign in responding to the NNP technology features brought by AUKUS has been carried out since 2022 when it submitted a working paper entitled "Nuclear Naval Propulsion" to a UN Review Conference of the Parties to the NPT (Indonesia, 2022). The working paper outlined three problems, namely: 1) the transfer of nuclear material and technology for military purposes from nuclear-weapon states to non-nuclear-weapon states; 2) the possibility of accidents and disasters involving nuclear-powered submarines and exposure of the marine environment to radiation; 3) the conversion of nuclear material that could lead to the development of nuclear weapons (Indonesia, 2022). In February 2023, the Indonesian and Australian Ministries of Defense and Foreign Affairs met at a 2+2 meeting and Minister Retno Marsudi expressed the importance of transparency and commitment to preventing the proliferation of nuclear weapons, including full compliance with the IAEA safeguards (ABC, 2022). However, Indonesia did not specifically mention AUKUS as a target of criticism, and Indonesian officials stated that the working paper submitted to the UN was not to respond to AUKUS, although the timing of the submission of the working paper reflects Indonesia's critical stance, especially in terms of the use of nuclear technology (Liliansa, 2023). Furthermore, not all high-ranking state officials agree with the Indonesian Ministry of Foreign Affairs. Defense Minister Prabowo Subianto said that Southeast Asia must remain free of nuclear weapons but understand and respect the need for every nation to protect its national interests (The

Jakarta Post, 2021). Defense Minister Prabowo's views could influence Indonesia's future foreign policy decisions as he takes office as President in October 2024.

Conclusion and Recommendation

The realization of AUKUS will intensify the nuclear-powered submarine traffic in Southeast Asia waters which have already been crowded by nuclear submarines of other states and in addition to the existing shipping lanes of the world's commerce. In addition to presenting challenges of safety of navigation and the need of coastal states to enhance its maritime control and awareness, AUKUS also presents a challenge to the future of nuclear non-proliferation. Specifically, the facilitation of an NNWS to acquire nuclear materials and technology that is unsafeguarded by the IAEA will become a precedent for future NNWS to acquire nuclear technology for their weapon systems as part of non-proscribed military activity. In this regard, there is an urgent need for the NPT and its safeguard protocols to be amended to anticipate future proliferation ambitions citing Australia's NNP technology as a precedent.

While nuclear weapons non-proliferation diplomacy must continue, the NPT and its additional protocols must adopt some changes. Absolute nuclear non-proliferation will be obsolete against a reality where a non-nuclear weapon state can acquire nuclear material and technology for its weapon system. This is important to consider because in the future when AUKUS is operational, there should be a verification mechanism for Australia to make sure that its nuclear material is not transferred to other countries or used to produce nuclear weapons. Other non-nuclear weapons states with enough ambition and dedication will probably use AUKUS as a precedent where non-nuclear weapons states can acquire nuclear technology and material from nuclear weapons states allied to them. Rather than pursuing an absolute nuclear non-proliferation for all NNWS, the NPT should be amended towards formulating strict conditions that must be met by non-nuclear weapon states – including Australia – to be able to build nuclear technology that can be integrated to their weapons platform and exempted from IAEA inspections.

Such conditions may include: 1) the stipulations in the CSA and its additional protocols in regard to what conditions should be fulfilled by NNWS before acquiring nuclear materials and technology for non-proscribed military activities, which should be fulfilled before AUKUS becomes operational; 2) absence of non-compliance record to IAEA safeguards and undeclared nuclear materials in the past; 3) having already ratified the Comprehensive Test-Ban Treaty (CTBT) and the Convention on the Physical Protection of Nuclear Material and its amendment; 4) committed to using a nuclear material

for a single purpose of fuelling naval reactors; 5) committed not enrich uranium or reprocess spent fuel.

Scientists have also proposed the use of Low-Enriched Uranium which can only be used for naval reactors and cannot be utilized for nuclear warheads (Acton, 2021). This can be considered to maintain nuclear proliferation limited to a single purpose of nuclear naval propulsion technology. However, Australia might have to revive its submarine partnership with France due to the fact that latter is the only country with mastery over the use of LEU for naval reactors. This has also been a preferable choice among some leading Australian figures in regard to AUKUS' astronomical budget and impact on Australia's diminishing sovereignty in deciding for defence and foreign policy (Evans, 2024).

References

- ABC. (2022). 'Indonesia criticizes submarine loophole in nuclear non- proliferation treaty that underpins AUKUS deal,' 29 July. Available at <https://www.abc.net.au/news/2022-07-29/indonesia-aukus-deal-criticism-at-united-nations/101282786>.
- Acton, J. (2021). Why the AUKUS Submarine Deal Is Bad for Nonproliferation—And What to Do About It, <https://carnegieendowment.org/posts/2021/09/why-the-aukus-submarine-deal-is-bad-for-nonproliferationand-what-to-do-about-it?lang=en>
- Evans, G. (2024). *AUKUS is terrible for Australian national interests – but we're probably stuck with it*. The Conversation. <https://theconversation.com/gareth-evans-aukus-is-terrible-for-australian-national-interests-but-were-probably-stuck-with-it-236938>
- Hamel-Green, M. (2021). Nuclear Deadlock, Stalled Diplomacy: The Northeast Asia Nuclear Weapon Free Zone Alternative—Proposals, Pathways, Prospects. *Journal for Peace and Nuclear Disarmament*, 4(S1), 201–233. <https://doi.org/10.1080/25751654.2021.1875285>
- IAEA. (1974). *The Text of the Agreement Between Australia and the Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons*. July.
- IAEA. (2018). *Board of Governors Verification and monitoring in the Islamic Republic of Iran in light of United Nations Security Council resolution 2231 (2015)*.
- Indonesia. (2022). *Nuclear Naval Propulsion: Working Paper Submitted by Indonesia*. 11625(July). <https://digitallibrary.un.org/record/3982634?ln=en>
- Liliansa, D. (2023). *AUKUS Two Years on: The View from Indonesia Indo-Pacific Defence and Security-AUKUS Series*.
- Rusli, H., & Bautista, L. B. (2023). Potential Implications of AUKUS and the Proposed Thai Canal on Crucial Sea Lines of Communication under the US Indo-Pacific Strategy. *Journal of East Asia and International Law*, 16(1), 87–104. <https://doi.org/10.14330/jeail.2023.16.1.05>
- Thomas-Noone, B., & Medcalf, R. (2015). *Nuclear-armed submarines in Indo-Pacific Asia: Stabiliser or menace? September*.
- Vignesh, R. (2024). *AUKUS Agreement for Cooperation in Naval Nuclear Propulsion : Key Takeaways. MP-IDS Issue Brief*.

The Jakarta Post. (2021). 'Prabowo says 'understands, respects' AUKUS pact,' Available at <https://www.thejakartapost.com/world/2021/11/23/prabowo-says-understands-respects-aucus-pact.html>.

Publish with us! Submit your article to: internationalrelations@ui.ac.id

Editor-in-Chief

Ali Abdullah Wibisono, Ph.D.

Editorial Board

Asra Virgianita, Ph.D.

Prof. Evi Fitriani, Ph.D.

Prof. Dr. Fredy B. L. Tobing

Managing Editor

Ardhitya Eduard Yeremia, Ph.D.

Editorial Secretary

Ahmad Hidayat, MGAP.

Staff

Ivan Sanjaya



Department of International Relations

Faculty of Social and Political Sciences Universitas Indonesia

☎ (+62 21)-7873-744 ✉ internationalrelations@ui.ac.id

🌐 www.ir.fisip.ui.ac.id 📷 [@internationalrelationsui](https://www.instagram.com/internationalrelationsui) 🐦 [@ir_fisipui](https://twitter.com/ir_fisipui)