

# TROUBLED WATERS:

**NUCLEAR SUBMARINES,  
AUKUS AND THE NPT**



**ICAN** 2017  
NOBEL  
PEACE  
PRIZE  
AUSTRALIA

**JULY 2022**

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# INTRODUCTION

## MARIANNE HANSON AND GEM ROMULD

Against a background where the proliferation of nuclear weapons is an ongoing concern, the Australian government in September 2021 announced AUKUS, an expanded trilateral security partnership with the UK and US governments. A key element of this agreement was the proposal to deliver eight nuclear-powered submarines to Australia, vessels which if they eventuate, are likely to utilise significant quantities of highly enriched uranium (HEU).

The Australian government which negotiated AUKUS was voted out of office in May 2022, and it is not yet clear from the new Labor government whether the submarine deal will go ahead or what form it might take if it does eventuate. It is nonetheless important to address now the proliferation concerns associated with the proposal, and to encourage the new government to re-think this decision.

The Prime Minister at the time seemed remarkably sanguine about acquiring nuclear-powered submarines, but many observers did not share this complacency and voiced their concerns about the domestic and international ramifications involved. The extent of disquiet was clearly evident when the Australian Joint Standing Committee on Treaties invited responses to the agreement. Despite the public being given less than a week to register their views, 104 submissions were received, and these were overwhelmingly against the nuclear submarine proposal. Several individuals and organisations expressed unease about such a profound reorientation of Australian security, defence, and nuclear policy[1].

Others questioned the need for nuclear-powered submarines in the first place[2]. Such vessels are viewed primarily as a means of projecting power at a distance, that is, close to China's coast in tandem with US war-fighting strategies, rather than as vessels suited to defending Australia's own coast; as such, a

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... But the proposal nonetheless breaks an existing taboo and sets a precedent where other states will use the same logic to acquire nuclear material and sensitive technology.

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return to conventionally-powered submarines is seen as a more appropriate and cost-effective strategy. Unusually, former prime ministers from both parties of government also spoke strongly against the plan.

There is also the view that acquiring nuclear submarines could entail an escalation in Australia of many things nuclear: more nuclear engineers and capacity in and out of the Australian Defence Force, and further nuclear military enmeshment with the US and UK. The majority of Australians share an aversion to nuclear weapons and power, and there is a concern that the case for nuclear powered submarines could be used to soften the public on the eventual stationing or storage of foreign nuclear weapons on Australian soil.

The most immediate concern however is the proliferation risk posed by nuclear-powered submarines. Australia has long supported nuclear non-proliferation efforts. It has championed domestic and international programs to reduce and remove HEU from civilian uses worldwide, and it claims to support a Fissile Material Cut-off Treaty. But acquiring large quantities of HEU – one analyst suggests that there could be up to 20 nuclear weapons' worth of HEU on each submarine[3], on mobile platforms for several decades outside of usual IAEA safeguards and scrutiny - jeopardizes non-proliferation efforts and fissile material security[4].

[1] Submissions can be viewed at

[https://www.aph.gov.au/Parliamentary\\_Business/Committees/Joint/Treaties/ENNPIA/Submissions](https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Treaties/ENNPIA/Submissions). Writers noted the following concerns: the lack of consultation with the Australian public; the diplomatic falling-out with France, and the cost of reneging on the existing French submarine deal; the likely cost to purchase nuclear submarines from the US or the UK; the possibility of nuclear accidents and their environmental repercussions; the de-stabilising potential that AUKUS might present to the Asia-Pacific region at a time when diplomatic rather than sharp military responses to the rise of China are needed; and the concern among several of Australia's near neighbours whose sensitivities to nuclear issues have been ignored.

[2] Hugh White, 2021, [From the submarine to the ridiculous](https://sdsc.bellschool.anu.edu.au/news-events/news/8191/submarine-ridiculous) Strategic and Defence Studies Centre, Australian National University, 18 September 2021, <https://sdsc.bellschool.anu.edu.au/news-events/news/8191/submarine-ridiculous>

[3] Alan Kuperman, 2021, [Bomb-grade uranium for Australian submarines?](https://english.kyodonews.net/news/2021/11/006a0287253b-opinion-bomb-grade-uranium-for-australian-submarines.html), Kyodo News, 11 November 2021, <https://english.kyodonews.net/news/2021/11/006a0287253b-opinion-bomb-grade-uranium-for-australian-submarines.html>

[4] While shifting to the use of low enriched uranium for the submarines would pose a lower proliferation risk than the current HEU proposal, we note that all nuclear-powered vessels and their supporting nuclear infrastructure carry environmental, health, radioactive waste, accident and some proliferation risks. Our argument therefore, especially in light of our geographic environment and obligations, is that the spread of any naval nuclear propulsion would be unfortunate.

## Closing the Paragraph 14 loophole: an urgent non-proliferation measure.

The Australian decision was made on the assumption that it would be permitted to divert nuclear material for what would be, essentially, a non-proscribed military purpose, by utilising Paragraph 14 of the IAEA's Comprehensive Safeguards Agreement (CSA). The 'loophole' of Paragraph 14 is seen by many as problematic because it potentially allows non-nuclear weapon states to acquire nuclear material which would be removed from IAEA safeguards. This poses a risk to the nuclear non-proliferation regime which relies not only on suppressing demand for nuclear weapons but also on controlling the supply of material which could be used to produce these weapons.

If the proposal goes ahead, Australia will set a risky precedent: it would become the first non-nuclear weapon state to be given this highly sensitive nuclear technology. And because, under the existing agreement, the uranium to be used is likely to be weapons-grade, the plan increases the risks to non-proliferation even further. HEU is the most suitable material for ready and rapid conversion into a nuclear bomb. While removing HEU from a submarine would not be an easy process, the possibility of diverting such material for weapons purposes cannot be ruled out.

The Prime Minister at the time reaffirmed that Australia will not acquire nuclear weapons. But the proposal nonetheless breaks an existing taboo and sets a precedent where other states will use the same logic to acquire nuclear material and sensitive technology. Indeed, since AUKUS was announced a number of countries, including Iran, have indicated that they too would like to utilise the Paragraph 14 loophole.

ICAN Australia therefore strongly supports a campaign to 'Close the Paragraph 14 Loophole'. The Tenth Review Conference of the nuclear Non-Proliferation Treaty in August 2022 provides an opportune moment to urge governments around the world to strengthen non-proliferation efforts.

## Why the NPT and why now?

Raising these proliferation concerns now is an important task. The AUKUS submarine plan is still in its initial 18-month planning phase, and the precedent has not yet been established. The prospects for curtailing the plan are greater since the new Labor government was elected in May 2022. While in opposition, the (now) Prime Minister Anthony Albanese had put conditions on Labor's support for the proposed nuclear powered submarines: no requirement for a domestic civil nuclear industry, no acquisition of nuclear weapons, and compatibility with the NPT. But as we show in this report, the submarine proposal if it goes ahead is likely to have a deleterious impact on the NPT and the non-proliferation regime more generally.

The upcoming NPT Review Conference is therefore precisely the right forum at which to raise this issue. It has the mandate to strengthen rather than weaken the global non-proliferation regime by moving to close the Paragraph 14 loophole. We believe that Australian acquisition of nuclear submarines would be an unnecessary and retrograde step, and we urge the new Labor government to consider alternative types of submarine technology. We hope that this Report will encourage active and critical engagement by the international community. Efforts to advance nuclear non-proliferation are of high importance and in a context where the Treaty on the Prohibition of Nuclear Weapons has entered into force and is gathering support, the proposed step towards, rather than away from, utilization of weapons-usable fissile material and technology carries unacceptable and unnecessary risks.

The proposal to 'Close the Paragraph 14 loophole' is gaining support from several states and civil society groups. We note that even if the safeguards loophole is not definitively closed at the upcoming Review Conference, if many states raise concerns about the proliferation implications of the proposed nuclear-powered submarines, these plans can be shelved before they have progressed and are harder to change.



Image: Negotiations on the Treaty on the Prohibition of Nuclear Weapons, 2017. Credit: ICAN.



This Report therefore assesses the following issues:

- Tariq Rauf makes a comprehensive case against any further development of naval nuclear reactors. As the former Head of Verification and Security Policy Coordination for the IAEA, he calls on states at the upcoming NPT Review Conference to find ways to close off the Paragraph 14 loophole, arguing that “now is the time to further strengthen the effectiveness and improve the efficiency of the IAEA safeguards system, not to weaken it and not drive a fleet of nuclear-powered submarines through it.”
- Trevor Findlay details the impact that the nuclear submarine deal could have on the Non-Proliferation Treaty, and how the military-to-military transfer of enriched uranium to a non-nuclear weapon state like Australia presents a problem for IAEA verification. He reminds us that the deal could pave the way for a variety of other non-nuclear weapon states – some with possible [or potential] proliferation motivations – to acquire nuclear materials and to avoid compliance with safeguards.
- Richard Tanter surveys the broad strategic implications of enmeshing Australian defence capabilities more closely into American and British military postures, and addresses the risk that AUKUS might serve to exacerbate regional tensions.
- Monique Cormier raises questions of whether a non-peaceful nuclear activity – that is, the use of enriched uranium for fuelling a submarine – contradicts the NPT’s object and purpose, and whether this is a legitimate action for Australia, a state that otherwise professes to be a champion of nuclear non-proliferation, to take.
- Talei Mangioni brings an important Pacific voice into the debate. She surveys the impact that the submarine announcement has had on Australia’s South Pacific neighbours, for whom the humanitarian impacts of nuclear tests remain of grave concern. Her analysis reminds us that Australia has paid little attention to its South Pacific neighbours in recent years, and that it underestimates the intensity of the anti-nuclear sentiment in the region.

- Muhadi Sugiono notes that AUKUS has already created proliferation, strategic, and political concerns among some of Australia’s closest neighbours in South-East Asia, and argues strongly for closing the Paragraph 14 loophole.

Cooperating with the IAEA in the area of nuclear safeguards and verification strengthens the complementarity between the NPT and the new Treaty on the Prohibition of Nuclear Weapons, as affirmed by the Vienna Declaration<sup>[5]</sup> adopted by the first Meeting of States Parties to the TPNW in June 2022. Australia has often raised the need to ensure such complementarity between these treaties and upholding existing IAEA safeguards, rather than weakening them by acquiring nuclear submarines, is an obvious way to do this.

Finally, the best assurance the Australian Government can give of its commitment to nuclear non-proliferation and disarmament is to sign and ratify the TPNW, in line with its pre-election commitment to do so. In the context of Australia’s pursuit of nuclear-powered submarines, and the concerns of our neighbours in South East Asia and the Pacific, such a commitment will be important for building peace and security in the region.

**Gem Romuld is the Director of ICAN Australia**

**Marianne Hanson is Associate Professor of International Relations at the University of Queensland and ICAN Australia Co-Chair**



Image: First Meeting of States Parties to the UN Treaty on the Prohibition of Nuclear Weapons in Vienna, June 2022. Credit: ICAN.

[5] First Meeting of States Parties to the Treaty on the Prohibition of Nuclear Weapons, 2022, [Vienna Declaration "Our Commitment to a World Free of Nuclear Weapons](https://documents.unoda.org/wp-content/uploads/2022/06/TPNW.MSP_.2022.CRP_.8-Draft-Declaration.pdf), 5 July 2022, [https://documents.unoda.org/wp-content/uploads/2022/06/TPNW.MSP\\_.2022.CRP\\_.8-Draft-Declaration.pdf](https://documents.unoda.org/wp-content/uploads/2022/06/TPNW.MSP_.2022.CRP_.8-Draft-Declaration.pdf)

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# THE CHALLENGE OF NUCLEAR-POWERED SUBMARINES TO IAEA SAFEGUARDS

**TARIQ RAUF**

A looming challenge for the nuclear safeguards (verification) system of the International Atomic Energy Agency (IAEA), in connection with the Non-Proliferation Treaty (NPT), is that of safeguarding the naval nuclear cycle in non-nuclear-weapon States with comprehensive safeguards agreements (CSAs) in force.

Presently, nuclear reactors for naval propulsion are either under development or envisaged for nuclear-powered submarines in at least three CSA States – Australia, Brazil and South Korea – and also could be considered in the future by additional States such as Argentina, Canada, Iran and Japan among others.

Paragraph 14 of [INFCIRC/153/Rev2](#)[1] type safeguards agreements in force for CSA States, such as Australia, allows for the “Non-Application of Safeguards to Nuclear Material to be used in Non-Peaceful Activities”, generally interpreted to refer to nuclear-powered submarines (SSNs) and ships, military space vehicles, and nuclear reactors and radio-thermal generators (RTGs) for military bases or isolated radar stations, etc.

Surprisingly, there is no definition of the concept of “non-peaceful or non-proscribed nuclear military activities” as this has never been tested at the IAEA Board of Governors nor at NPT Review Conferences.

In the current context of the (Australia, UK and US)[2] AUKUS agreement[3] and the proposed supply of SSNs to Australia[4], the IAEA Board of Governors discussed this matter at the request of China on 26 November 2021[5], and again in March this year; but the Board punted the matter into the indefinite future, preferring

to rely on the [AUKUS participating States](#)[6] to present their views in about eighteen months. On 7 March, the IAEA Director General reported that the three AUKUS States had held a first meeting with an Agency technical team which reminded them of their reporting obligations under their respective safeguards agreements and additional protocols that could be of relevance to their safeguards implementation in relation to their joint project.

In 1988, along with my then colleague Marie-France Desjardins, I published a seminal study that, for the first time in a substantive manner, warned against the dangers of the proliferation of fast attack nuclear-powered submarines (SSNs) to non-nuclear-weapon States (NNWS) party to the nuclear [Non-Proliferation Treaty \(NPT\)](#)[7].

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[NPT] States parties also could seriously consider recommending that the INFCIRC/153 (Corr.), paragraph 14, exclusion is undesirable and defeats the objectives and purposes of NPT safeguards.

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[1] International Atomic Energy Agency, 1972, [The structure and content of agreements between the Agency and States required in connection with the Treaty on the Non-Proliferation of Nuclear Weapons](#), 4 July 2022, <https://www.iaea.org/sites/default/files/publications/documents/infcircs/1972/infcirc153.pdf>.

[2] The White House, 2021, [Joint Leaders Statement on AUKUS](#), 4 July 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/15/joint-leaders-statement-on-aucus/>.

[3] UK Government, 2021, [UK, US and Australia launch new security partnership](#), 4 July 2022, <https://www.gov.uk/government/news/uk-us-and-australia-launch-new-security-partnership>.

[4] US Mission to International Organizations in Vienna, 2021, [Non-Paper on Nuclear Propulsion Cooperation under AUKUS](#), 4 July 2022, <https://vienna.usmission.gov/non-paper-on-nuclear-propulsion-cooperation-under-aucus/>.

[5] Permanent Mission to the People's Republic of China to the United Nations and other international organizations in Vienna, 2021, [Statement by H.E. Ambassador Wang Qun on The Trilateral Nuclear Submarine Cooperation under AUKUS](#), 4 July 2022, [http://vienna.china-mission.gov.cn/eng/hyyfy/202111/t20211127\\_10454268.htm](http://vienna.china-mission.gov.cn/eng/hyyfy/202111/t20211127_10454268.htm).

[6] US Mission to International Organizations in Vienna, 2021, [Statement on behalf of Australia, UK and US on the transfer of nuclear materials in the context of AUKUS](#), 4 July 2022, <https://vienna.usmission.gov/trilateral-aucus-statement-iaea-bog-nov-2021/>.

[7] International Atomic Energy Agency, 1970, [Treaty on the Non-Proliferation of Nuclear Weapons](#), 4 July 2022, <https://www.iaea.org/sites/default/files/publications/documents/infcircs/1970/infcirc140.pdf>.

Aurora Papers 8, Opening Pandora's Box? Nuclear-Powered Submarines and the Spread of Nuclear Weapons[8], published in February 1988 by the then Canadian Centre for Arms Control and Disarmament (CCACD), examined the then Canadian government's plan to acquire a fleet of 10 to 12 SSNs and assessed the negative impact on the safeguards or verification system of the NPT administered by the International Atomic Energy Agency (IAEA).

The IAEA's NPT safeguards system for NNWS is specified in The Structure and Content of Agreements between the Agency and States required in connection with the Treaty on the Non-Proliferation of Nuclear Weapons (INFCIRC/153 (Corrected))[9] of 1971/1972. The basic undertaking of an NPT NNWS such as Australia is "to accept safeguards, in accordance with the terms of the Agreement, on all source or special fissionable material in all peaceful nuclear activities within its territory, under its jurisdiction or carried out under its control anywhere, for the exclusive purpose of verifying that such material is not diverted to nuclear weapons or other nuclear explosive devices" (emphasis added).

To exercise this provision of INFCIRC/153 (Corr.)[10] paragraph 14 on the "Non-Application of Safeguards to Nuclear Material to be used in Non-Peaceful Activities", the State concerned would have to give an assurance to the IAEA to not use the nuclear material taken out of safeguards for the production of nuclear weapons or other nuclear explosive devices.

Furthermore, IAEA safeguards "shall again apply as soon as the nuclear material is reintroduced into a peaceful nuclear activity [such as a spent nuclear fuel storage or disposition facility]. The Agency shall be kept informed of the total quantity and composition of such unsafeguarded nuclear material ... but shall not involve any approval or classified knowledge of the military activity or relate to the use of the nuclear material therein".

It is interesting in the context of the current backroom discussions at the IAEA and elsewhere on how to address safeguards modalities under the AUKUS plan, to recall that on 30 March 1978, Australia sent a letter to the IAEA Director General, seeking "clarification of certain of the provisions and procedures involved in paragraph 14" of INFCIRC/153



Image: Flag of the International Atomic Energy Agency.

(Corr.). In the letter, Australia inter alia stated that to implement paragraph 14 provisions, "a State would have to seek the approval of the IAEA Board of Governors for using nuclear material outside of safeguards for non-proscribed "non-peaceful activities". And further that, "In the event of a State not following the prescribed procedures, this would constitute a breach of the safeguards agreement with the Agency and any such breach would be reported to the Board of Governors".

In his reply of 17 April 1978, the IAEA Director General Sigvaard Eklund stated that "No State Party to NPT has so far exercised the discretion referred to in paragraph 14. Accordingly, the Board of Governors has not had occasion to interpret that paragraph, nor has it elaborated in further detail the procedures to be followed pursuant to that paragraph ... [and] any breach of the procedures referred to in that paragraph, must be reported to the Board of Governors".

Fast forward to 20 August 1987, the IAEA in response to my enquiry stated[11] that, "To the Secretariat's knowledge there is no formal definition of "non-proscribed military activity". We understand that at the time of preparing INFCIRC/153 naval propulsion was considered as the most likely use ... [and that the drafters of INFCIRC/153] favoured a narrow construction of the term "non-proscribed military activity", and that processes such as enrichment or reprocessing to produce materials for use in such an activity would not themselves be considered as non-proscribed military uses and would therefore be subject to safeguards in the NNWS concerned" (reproduced from Aurora Papers 8[12]).

[8] The Canadian Centre for Arms Control and Disarmament, 1988, Opening Pandora's Box? Nuclear-Powered Submarines and the Spread of Nuclear Weapons, 4 July 2022, <https://www.ceasefire.ca/wp-content/uploads/2021/09/Aurora8SSNandNPT.pdf>.

[9] International Atomic Energy Agency, 1972, The structure and content of agreements between the Agency and States required in connection with the Treaty on the Non-Proliferation of Nuclear Weapons, 4 July 2022, <https://www.iaea.org/sites/default/files/publications/documents/infcircs/1972/infcirc153.pdf>.

[10] Ibid.

[11] The Canadian Centre for Arms Control and Disarmament, 1988, Opening Pandora's Box? Nuclear-Powered Submarines and the Spread of Nuclear Weapons, 4 July 2022, <https://www.ceasefire.ca/wp-content/uploads/2021/09/Aurora8SSNandNPT.pdf>.

[12] Ibid.

The problem the IAEA is facing concerns what has been discussed above: the exemption from safeguards of naval nuclear fuel regardless of whether it is Australia or any other non-nuclear-weapon State with an INFCIRC/153 (Corr.) type safeguards agreement in force. Not only is there not any definition or interpretation of the paragraph 14 exemptions, nor of what is meant by “non-peaceful” and “non-proscribed” military activities, and there is no understanding of, or procedures to, implement paragraph 14 provisions for the “non-application of safeguards”.

For the three AUKUS partner States to take it upon themselves to interpret and to define paragraph 14 exemptions, with or without the IAEA Secretariat’s involvement, cannot command confidence without adequate consultations involving interested Member States and experts. All IAEA Member States are equal under the Agency’s Statute[13], and all States with INFCIRC/153 (Corr.) type safeguards agreements in force have an equal stake in how the structure and content of comprehensive safeguards agreements are concluded and implemented even taking into account the differing levels and extent of their respective nuclear fuel cycles.

In my view, the AUKUS States and their other allies are misguided in objecting to discussing the generic matter of the “non-proscribed” uses of nuclear material and related “non-application” of safeguards pursuant to paragraph 14 of INFCIRC/153 (Corr.), in a special committee of the IAEA Board of Governors[14].

In my view, were Australia or any other NPT NNWS to withhold from the IAEA information and safeguards application on naval nuclear fuel (weapon-grade highly-enriched uranium) pursuant to paragraph 14, then they should not be able to qualify for the IAEA’s safeguards

conclusions of: (a) “no indication of the diversion of declared nuclear material from peaceful nuclear activities; and, (b) no indication of undeclared nuclear material or activities. Thus, the IAEA Secretariat would not be able to conclude that, [for Australia], “all nuclear material remained in peaceful activities”.

At the Tenth NPT Review Conference, postponed from 2020 to January 2022 and now further delayed to August 2022 due to the continuing corona virus pandemic, States parties also could seriously consider recommending that the INFCIRC/153 (Corr.), paragraph 14, exclusion is undesirable and defeats the objectives and purposes of NPT safeguards; and adds another layer of discrimination to that between nuclear-weapon and non-nuclear-weapon States by creating a new category of NNWS with significant quantities of weapon-grade nuclear material out of NPT safeguards.

**Tariq Rauf was Head, Verification and Security Policy Coordination, Office reporting to the Director General, IAEA (2002-2011) and Alternate Head of the IAEA NPT Delegation (2002-2010).**

**Author, Policy Brief 122, Crashing Nuclear Submarines Through IAEA Safeguards (Toda Institute, January 2022); co-author, Aurora Papers 8, Opening Pandora’s Box? Nuclear-Powered Submarines and the Spread of Nuclear Weapons, (Canadian Centre for Arms Control and Disarmament, February 1988). In September 2003, he briefed the Conference on Disarmament at a “FMCT Exercise” on nuclear submarines and paragraph 14 of INFCIRC/153 (Corr.) (CD/1691). The views expressed here are those of the author and do not represent those of any organization or entity.**

Image: IAEA Board of Governors. Credit: IAEA.



[13] International Atomic Energy Agency, 2022, Statute, 4 July 2022, <https://www.iaea.org/about/overview/statute>.

[14] International Atomic Energy Agency, 2022, Board of Governors, 4 July 2022, <https://www.iaea.org/about/governance/board-of-governors>.



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# THE AUKUS SUBMARINE PROJECT AND THE NUCLEAR NONPROLIFERATION REGIME

TREVOR FINDLAY

The surprise announcement by Australia, the United Kingdom, and the United States on 16 September 2021 promises to make Australia the first state without nuclear weapons to acquire nuclear-powered submarines. The announcement of an 18-month feasibility study to examine the options was followed by an agreement signed by the three partners on 22 November that is facilitating information exchanges, training and visits to help Australia decide whether to proceed with the project. Sources indicate that the Australian task force charged with producing a report is aiming for October of this year, rather than taking 18 months as originally envisaged.

The AUKUS submarine proposal presents yet another unwelcome challenge to the nuclear nonproliferation regime, this time by three states that have traditionally been among its greatest supporters. The foundations of that regime, which aims to prevent the spread of nuclear weapons to states that do not have them, are the 1968 Non-Proliferation Treaty (NPT) and the safeguards system operated by the International Atomic Energy Agency (IAEA). Safeguards entail declarations of nuclear holdings, nuclear material accountancy, containment and surveillance measures, on-site inspections, and increasingly, remote sensing and sophisticated data analysis. As the implications of the Australian submarine proposal are studied by governments, nonproliferation experts, and the IAEA itself, the complexities and apparent dangers to the regime are becoming more apparent.

Australia, like other non-nuclear weapon states that are party to the NPT, has a Comprehensive Safeguards Agreement (CSA) with the IAEA that requires the Agency to verify that Australia is not diverting any nuclear material from peaceful purposes to weapons purposes. Australia has an excellent compliance track record and there is no suggestion that Australia seeks nuclear weapons. Its proposed submarines would be nuclear-powered but conventionally armed. The difficulty is that nuclear propulsion for submarines is not considered a peaceful use of nuclear energy, but a “non-explosive military use.” This is partly because submarine reactors use enriched uranium, either highly-enriched uranium (HEU) that can also be used for nuclear weapons, or low-enriched uranium (LEU) that

with further enrichment can become bomb material. It is also because nuclear propulsion technology, including the reactor and fuel design, unlike civilian nuclear power plants, is highly classified. The US Navy regards its nuclear submarine propulsion technology, shared so far only with the United Kingdom, as one of its “crown jewels”.

Australia’s CSA, like all others, seeks to skirt this obstacle by providing, in paragraph 14, that nuclear material may be removed from safeguards for the duration of its use in a submarine reactor and returned to safeguards once that use ends. The drafters of this article, widely described as a “loophole”, apparently assumed that the state would enrich its own nuclear material under safeguards and that all the material would be derived from and returned to peaceful uses. Paragraph 14 requires that the state notify the IAEA of its intention, the amount and composition of the material involved, and the estimated duration of its withdrawal from safeguards.

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A military to military transfer to a non-nuclear weapon state conducted completely outside the IAEA verification system would, however, make a mockery of the entire nonproliferation regime, both in logic and in law.

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From the little detail we have of the AUKUS proposal, it does not fit the model suggested in paragraph 14. On the contrary, it appears to envisage a “military to military” transfer completely outside safeguards. Australia’s vessels are apparently likely to be based on British or American designs and constructed in South Australia but provided with imported sealed reactors with “lifetime cores” of HEU that would be built into the hull. Australia has no current capacity for designing and building

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reactors, enriching uranium or disposing of high-level nuclear waste or spent fuel. Since both the UK and the US are nuclear weapon states, the HEU would be military in origin and not withdrawn from peaceful uses under safeguards. At the end of the 30-year life span of the submarines, the reactors would be returned to the UK or US for decommissioning and disposal of the spent fuel outside of safeguards.

A military to military transfer to a non-nuclear weapon state conducted completely outside the IAEA verification system would, however, make a mockery of the entire nonproliferation regime, both in logic and in law. Fortunately, paragraph 14 requires a state contemplating a “non-explosive use of nuclear material” to negotiate an “arrangement” with the IAEA to satisfy it that the material is not being diverted to nuclear weapons. Such an agreement appears to require approval by the IAEA Board of Governors (of which Australia is more or less a permanent member) thanks to a request for clarification from the Secretariat in 1978 from, ironically, Australia. The Director General of the IAEA, Rafael Grossi, has been notified by Canberra of its intentions and has convened a group of his senior safeguards experts to examine the issue. The three partners in the AUKUS arrangement have committed themselves to “the highest standards for safeguards, transparency, verification and accountancy measures to ensure the non-proliferation, safety and security of nuclear material and technology.” Australian officials, along with their American and British partners, will undoubtedly work diligently to ensure that the unprecedented “arrangement” with the IAEA attempts to fulfill these requirements.

Yet because no state has ever triggered the implementation of paragraph 14, this is unknown territory. There is no model for Australia to follow. Canada did begin discussions with the IAEA in the late 1980s before abandoning its submarine plans, but safeguards have become infinitely more complex since then. Even though it is currently building its own nuclear-powered submarine, using its own enriched fuel, Brazil has not yet notified the IAEA of its intentions. South Korea, Japan, and Pakistan have all expressed interest in nuclear-powered submarines. Worryingly, and herein lies the problem in its starkest form, Iran has informed the IAEA that it intends at some unspecified time to acquire such a capability, undoubtedly yet another ploy to justify its already suspect enrichment activities.

As the IAEA Director General has already warned, verification of the use of nuclear fuel for nuclear-powered submarines will be “very

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As the IAEA Director General has already warned, verification of the use of nuclear fuel for nuclear-powered submarines will be “very tricky.”

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tricky.” Any agreed arrangement will need to provide the IAEA (and its member states) with sufficient assurance of non-diversion of nuclear material, while also avoiding revealing proliferation-sensitive information to the Agency’s inspectors and analysts. Standard on-site inspection techniques applied to land-based nuclear power reactors, including nuclear material accountancy, the application of seals and the installation of cameras will likely be impossible. The US and UK may even be unwilling to declare gross parameters of the amounts and type of nuclear materials involved. Satellite imagery will help verify that a submarine reactor and its fuel are not being



Image: A nuclear reactor vessel is lowered into a French ballistic missile submarine, Le Terrible, which runs on low-enriched uranium fuel. Credit: DCNS.

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removed while the vessel is in port for servicing and crew rest and recreation—as long as the vessel is not concealed. (HEU-fueled submarines apparently need to be cut open for fuel to be removed). But what occurs at sea is naturally beyond the ken of the IAEA. And monitoring will have to be done for the decades-long lifetime of the submarines.

Proposals have been made for the AUKUS partners to investigate the use of LEU for Australia's submarines. This is technically feasible, as China and France use such fuel and Brazil is planning to do so. It is also preferable from a non-proliferation standpoint in one respect, as LEU is not immediately usable in nuclear weapons. But LEU-powered vessels using current technology, rather than having so-called lifetime cores, need to be periodically refueled roughly every 10 years. A verification scheme for this scenario would be even more challenging for the IAEA. Despite opposition from elements of the U.S. Navy, the U.S. Congress has for several years funded a study of the use of LEU lifetime cores for the next generation of American submarines (the SSN(X)). Development of such technology is, however, likely to take an estimated 10-15 years and require substantially more funding, which would prolong even further the already

elongated timeline for Australia's submarine replacement aspirations.

For the IAEA, having to devote time, personnel, and resources to devising a suitable scheme for Australia's benefit when the Agency is confronted by the non-compliance cases of Iran and North Korea, along with a host of other challenges, including those triggered by the Russian invasion of Ukraine, is daunting. China is already seeking to roil the political waters at the Agency by proposing a Board of Governors committee to study the Article 14 issue—an idea that is likely to get nowhere. For Australia there is an element of moral hazard here. In creating a precedent and safeguards model it could be paving the way for the proliferation of nuclear-powered submarines to a wide variety of non-nuclear weapon states. Some of these will have ulterior motives, some will be less than scrupulous in complying with safeguards, and some may be located not far from our shores.

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# NUCLEAR-POWERED SUBMARINES FOR AUSTRALIA – STEPPING BACK INTO THE ANGLOSPHERE AND INTO A NEW ASIAN ARMS RACE

**RICHARD TANTER**

The Australian government's announcement in September 2021 of a new set of military agreements between Australia, the United States and the United Kingdom was a surprising, retrograde and risky step.

For many Australians, the idea of the UK being of any serious strategic importance to Australia, more than 60 years after that country withdrew from its military positions 'East of Suez', was a step back in time to the formation of the Australian state as part of the British Empire in 1901.

Just as Australians are slowly beginning to recognize the realities of their location in Asia, a deepened alliance with the United States and a post-Brexit reboot of the UK has put the 'Anglo' back in the racialised identity that makes up the Anglosphere.

The most well-known aspect of AUKUS is the agreement with the US and the UK to supply Australia with nuclear-powered submarines – or more precisely, with nuclear-propulsion technology. While much is unclear about this proposal and much about it problematic in terms of weakening the nuclear non-proliferation regime and exacerbating the strategic arms race in Asia, what is clear is that the decision will have major strategic consequences for Australia, and from the perspective of China, potentially existential consequences.

The prelude to AUKUS – by just a matter of minutes – was the cancellation of a 2016 Australian contract with a French government-owned shipbuilder for eight French conventional diesel/electric-powered submarines, expected to be worth more than A\$100bn. Under AUKUS, the US will allow the export to Australia of naval nuclear power technology, either directly or by licence through the UK (with the latter making up an Australian and US subsidy to post-Brexit Britain).

Almost everything else about the submarines – what type they will be, what their operational capabilities will be, which country will build them, and when they will be delivered – is to

be decided following a review to be completed in 2023. Effectively, the AUKUS submarine decision amounts to a \$100 bn plus blank cheque.

Nothing is known about the next Australian submarine except for one fact: nuclear-propulsion. Nuclear naval reactors are, the Australian government has stated, required for long-range, long endurance, high speed capability operations in waters distant from Australia's immediate neighbourhood.

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What strategic need is it intended to meet, and what are the strategic consequences of that acquisition?

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The two most important questions to ask about any major weapons system platform concern its primary strategic purpose: what strategic need is it intended to meet, and what are the strategic consequences of that acquisition?

In the case of what will become the largest Australian military purchase ever, the answers to these basic strategic questions are deeply troubling, and both involve China.

Whether based on the US Virginia class hunter-killer submarines or the UK's troubled Astute class attack submarines or some new design, the vessels will be more than double the tonnage of both Australia's current submarines and their now-abandoned French replacements.

The very long range and great size of the likely US or UK nuclear submarines means that they are not principally designed for operations in Australian waters and their approaches - the traditional and understandable defence concern



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for Australian naval planners. For the most part, large, fast nuclear-powered submarines are not the most appropriate choice for the relatively shallow waters of most of littoral Southeast Asia and the waters north and northeast of Australia.

Australia's prospective nuclear-powered submarines will in fact be primarily designed for operations in distant waters working in concert with the US Navy in two key types of operations against China.

One mission will be to join US hunter-killer submarines in protecting US-led aircraft carrier taskforces attacking Chinese air, naval and ground targets from the Pacific or the South China Sea. Since 1945 the US has been able to move on to the offence with impunity by bringing its carrier taskforces in range of mainland Asian targets.

In the past, there was little China could do to respond. Now, with Chinese coastal defences significantly improved, the US will have to proceed more cautiously, hopefully protected against Chinese submarines by a phalanx of US and coalition anti-submarine warfare assets, including hunter-killer submarines. Australia is offering to make a marginal contribution to such an attack on the Chinese homeland.

The second, even more serious mission involves a marginal Australian contribution to an even more dangerous attack on Chinese military capabilities in time of war: hunting, in concert with US attack submarines, Chinese nuclear ballistic missile submarines that make up the core of their survivable nuclear deterrent force.

China's hope is that its nuclear ballistic missile submarines hiding in the deeper parts of the South China Sea or in the abyssal trenches of



Image: Then Prime Minister Scott Morrison announcing the AUKUS partnership with UK Prime Minister Boris Johnson and US President Joe Biden, 16 September 2021.

the western Pacific will be hard for the US and its allies to find and destroy. In contrast, China's land based missiles are highly vulnerable to a US nuclear first-strike and to interception by US missile defence systems.

China hopes that even with that vulnerability to a US first strike, its nuclear missile submarines would provide the basis of a retaliatory second strike – and thereby deter the US from any nuclear attack on China.

Whatever one's doubts and objections about the validity of deterrence theory generally, there can be little doubt that China, like the United States, takes the deterrence of nuclear attack by the possession of nuclear weapons that can survive a surprise attack very seriously.

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“ Australia cannot hope to evade Chinese enduring enmity from such considered and direct assistance to an attempt to make China profoundly existentially vulnerable to US nuclear attack.

” There are of course a number of other important strategic uncertainties and concerns involved in this decision. Planning for long-range Australian submarine missions against Chinese targets assumes unimpeded passage through the waters of countries to Australia's north – an assumption that in itself indicates Australian arrogance and disregard for its neighbours in the South East Asia Nuclear Weapon Free Zone.

Moreover, a number of senior Australian defence experts and former senior officials see the plan as driven by domestic political and alliance management considerations rather than by careful and balanced assessment of Australia's primary strategic defence needs.

Others see the program as hopelessly unrealistic in terms of budget and defence procurement capability, and doubt Australia will

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in fact acquire the promised nuclear-powered submarines.

Apart from the likely prohibitive costs and the politics-driven wrangling about which country and company will build what where, US and UK nuclear-powered submarines are as a matter of policy fuelled for their lifetimes by highly-enriched uranium (over 90%-enriched uranium).

This is concerning for three further strategic reasons.

Firstly, Australia has no civil technology base to maintain and operate nuclear power plants of any kind, let alone naval nuclear reactors for sub-surface combat conditions.

Secondly, as Monique Cormier and Trevor Findlay argue cogently elsewhere in this report, while export of naval nuclear reactors is not prohibited under the Non-Proliferation Treaty and IAEA safeguards, the planned export of highly-enriched uranium to power the submarine reactors undermines the spirit of

nuclear non-proliferation embodied in the South Pacific and South East Asian Nuclear Weapon Free Zones embraced by all of Australia's neighbours.

And thirdly, since previous requests to the US for the same nuclear-propulsion technology from Asian allies more important to the US than Australia such as South Korea have been refused, this US policy towards Australia will be diplomatically unsustainable. The inevitable result will be an escalating naval arms race in East and Southeast Asia – a development that in itself works against the enduring defence interests of all concerned.

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# IMPLICATIONS FOR THE INTERNATIONAL LEGAL REGIME

## MONIQUE CORMIER

There has been a lot of commentary on the potentially significant operational, political and security ramifications of AUKUS. This paper provides a snapshot of some of the implications of AUKUS for the various international non-proliferation legal regimes. If Australia's plan to acquire nuclear-powered submarines goes ahead, it will be the first non-nuclear weapon state (NNWS) to possess such vessels and it will test the limits of an already fragile network of non-proliferation agreements.

### **Treaty on the Non-Proliferation of Nuclear Weapons**

The 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is the cornerstone international agreement for the non-proliferation of nuclear weapons. It contains different sets of disarmament and non-proliferation obligations for those states that

possess nuclear weapons (NWS) and those that do not (NNWS), and the NPT obliges NNWS not to manufacture or acquire nuclear weapons or nuclear explosive devices [1]. In return, they are allowed to develop nuclear energy for 'peaceful purposes' subject to the important safeguards system implemented and monitored by the International Atomic Energy Agency (IAEA) [2]. The NPT itself is silent on the use of nuclear material for military purposes other than the prohibition on NNWS acquiring or using nuclear weapons or explosive devices, meaning that there is a loophole in the regime that would allow NNWS to develop or acquire nuclear technology to be used for non-peaceful, non-proscribed military purposes [3]. This gap in the NPT regime did not come about by accident – during the drafting, some NNWS wanted to ensure that naval nuclear propulsion would not be precluded by the NPT [4]. Italy and Sweden, for example, had nascent nuclear-

[1] Treaty on the Non-Proliferation of Nuclear Weapons, opened for signature 1 July 1968, 729 UNTS 161 (entered into force 5 March 1970) art II.

[2] Ibid, arts III – V.

[3] Marie-France Desjardins and Tariq Rauf, 'Opening Pandora's Box? Nuclear-Powered Submarines and the Spread of Nuclear Weapons' *Aurora Papers* 8 (The Canadian Centre for Arms Control and Disarmament, 1988) 13-23.

[4] David Fischer and Paul C Szasz, *Safeguarding the Atom: A Critical Appraisal* (Stockholm International Peace Research Institute, 1985) 81.

powered submarine programs at the time, although they ultimately did not progress. The comprehensive safeguards agreements between the IAEA and NNWS then make this apparent gap in the NPT explicit, by allowing for nuclear material to be removed from IAEA safeguards if it is to be used for such non-peaceful, non-proscribed purposes. The rationale for removing nuclear material from IAEA safeguards in these circumstances is to protect classified military information.

Trevor Findlay's paper in this report explains the legal grey area in the NPT-IAEA verification regime that would allow Australia to remove nuclear material from IAEA safeguards. If Australia invokes this verification loophole, it will be the first time it has ever been used. The key concern here is not that Australia itself would divert unsafeguarded nuclear material to the development of nuclear weapons, but that it would set a dangerous precedent for other NNWS to follow. If Australia can remove nuclear material from the IAEA safeguard system, why not others? And there would be no guarantee that other states would not exploit this loophole and divert nuclear material to weapons manufacture in clear breach of the NPT.

The NPT's silent acquiescence to NNWS possession of nuclear-powered submarines therefore has significant potential ramifications for non-proliferation. In international law, the

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This therefore raises the question of whether a non-peaceful nuclear activity with the potential to contradict the NPT's object and purpose is really a legitimate action to take for a state party that otherwise professes to be a champion of nuclear non-proliferation

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Image: Nuclear Non-Proliferation Treaty Review Conference, 2015. Credit: IAEA.

object and purpose of treaties is given particular significance – signatories and states parties must not defeat the object and purpose of a treaty [5]. In essence, the NPT's object and purpose is nuclear disarmament and the prevention of the proliferation of nuclear weapons. This therefore raises the question of whether a non-peaceful nuclear activity with the potential to contradict the NPT's object and purpose is really a legitimate action to take for a state party that otherwise professes to be a champion of nuclear non-proliferation [6].

### South Pacific Nuclear Free Zone Treaty

Australia is a party to the 1986 South Pacific Nuclear Free Zone (SPNFZ) Treaty, also known as the Treaty of Rarotonga [7]. While intended to be a comprehensive multilateral pact to create a broader nuclear-free zone (as opposed to a nuclear weapons-free zone), there is nothing in the Rarotonga treaty that expressly prohibits states parties from acquiring nuclear-powered submarines. Nor is there anything in the text of the treaty that would prevent nuclear-powered submarines from entering and passing through the zone. China has inferred that Australia's acquisition of nuclear-powered submarines via AUKUS may nevertheless be a violation of the Rarotonga Treaty [8]. Such an accusation is not without precedent. During the 1982 Falklands/Malvinas War, Argentina accused the UK of breaching Latin America's nuclear weapons free zone [9] by deploying nuclear-powered submarines into the area [10]. States parties to the Treaty of Tlatelolco may

[5] Vienna Convention on the Law of Treaties, opened for signature 23 May 1969, 1155 UNTS 331 (entered into force 27 January 1980) arts 18, 60(3)(b). For a more detailed discussion of the importance of a treaty's object and purpose, see Duncan B Hollis (ed), 'Initial Decisions on Treaty-Making' in Duncan B Hollis (ed), *The Oxford Guide to Treaties* (2nd ed, 2020) 647.

[6] See, eg Department of Foreign Affairs and Trade, Nuclear Issues (website) <https://www.dfat.gov.au/international-relation//security/non-proliferation-disarmament-arms-control/nuclear-issues>.

[7] South Pacific Nuclear Free-Zone Treaty, opened for signature 6 August 1985, 24 ILM 1442 (entered into force 11 Dec 1986).

[8] Embassy of the People's Republic of China in the Commonwealth of Australia, Chinese Foreign Ministry Spokesperson's Remarks (press release, 23 September 2021) [https://www.mfa.gov.cn/ce/ceau/eng/sghdxwfb\\_1/t1909396.htm](https://www.mfa.gov.cn/ce/ceau/eng/sghdxwfb_1/t1909396.htm).

[9] Established by the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean, opened for signature 14 February 1967, 634 UNTS 281 ('Treaty of Tlatelolco').

[10] The UK is party to Additional Protocols I and II of the Treaty of Tlatelolco.

only use nuclear material ‘exclusively for peaceful purposes’ within the zone and the UK’s use of nuclear-propelled submarines ‘in war-like actions’ was denounced at the time by the Treaty’s oversight agency [11]. The Treaty of Rarotonga, however, does not contain a clause that guarantees nuclear material will only be used for peaceful purposes within the nuclear free zone. This means that there is little in the agreement that would support the assertion that nuclear powered submarines are in and of themselves a contravention of the South Pacific Nuclear Free Zone [12].

Of greater concern for Rarotonga might be the possible environmental implications of having nuclear-powered submarines operate within the area. The treaty’s preamble declares that states parties are ‘determined to keep the region free of environmental pollution by radioactive wastes and other radioactive matter’. Nine nuclear-powered submarines have sunk in various parts of the world since the end of the Second World War, releasing radiation into the sea [13]. Any risk of an accidental or deliberate sinking of nuclear-powered submarines should be unacceptable given the potentially devastating environmental consequences that would follow. While the Treaty of Rarotonga prevents dumping at sea of any radioactive waste or matter anywhere within the nuclear free zone [14], this does not encompass unintentional leaking of such material.

Ultimately, the Treaty of Rarotonga is unlikely to pose any real challenge to Australia’s acquisition of a nuclear-powered submarine fleet. Article 5(2) of the Treaty allows states parties to decide for themselves if they wish to allow foreign vessels that are nuclear powered or carrying nuclear weapons into their territorial waters or to visit their ports. Aotearoa New Zealand, for example, has domestic legislation that prevents any nuclear-powered ships (which includes submarines)

from entering its internal waters [15]. Other Rarotonga states parties may choose to follow suit to reinforce the nuclear free principles that are in danger of being eroded by AUKUS.

### Other Non-Proliferation Regimes

AUKUS will potentially have negative implications for some other non-proliferation regimes that, while not legally binding, are part of Australia’s commitment to nuclear safeguards and arms control.

As a uranium exporter, Australia is a participant of the Nuclear Suppliers Group which endeavors to ensure that trade of nuclear technology, material and equipment is only conducted for peaceful purposes and does not contribute to the proliferation of nuclear weapons [16]. Australia’s commitment to strict export controls on its uranium in accordance with IAEA safeguards could be at risk under AUKUS.

Australia has a network of bilateral nuclear cooperation agreements designed to ensure that any nuclear material, equipment or technology is shared for exclusively peaceful purposes and is subject to stringent IAEA safeguards at all stages of the nuclear fuel cycle. These agreements specifically provide that any transferred material, equipment or components will not be used ‘for any military purpose’. ‘Military purpose’ is defined as including ‘military nuclear propulsion’ [17].

It is unknown whether any Australian uranium exported to the US or the UK will be used in the naval nuclear reactors. If the reactors are powered by Highly Enriched Uranium (HEU), as is anticipated, it is intended that the nuclear material will be drawn from the existing US military stockpile of HEU. The use of HEU means that the vessels will contain ‘lifetime cores’ with no refueling required for the

[11] Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (‘OPANAL’), Resolution 170 (VIII) Report on the introduction of nuclear weapons by the United Kingdom of Great Britain and Northern Ireland into the Zone and areas of the Malvinas, South Georgias and South Sandwich Islands (18 May 1983). <https://www.opanal.org/wp-content/uploads/2015/12/CG08res170i.pdf>.

[12] See further, Ryan A Musto, Does AUKUS Violate the Pledge of a Nuclear-Free South Pacific? China Thinks It Might The Diplomat (22 October 2021) <https://thediplomat.com/2021/10/does-aucus-violate-the-pledge-of-a-nuclear-free-south-pacific-china-thinks-it-might/>; Ryan Alexander Musto, Tlatelolco Tested: The Falklands/Malvinas War and Latin America’s Nuclear Weapon Free Zone (Nuclear Proliferation International History Project Working Paper 7, July 2015) [https://www.wilsoncenter.org/sites/default/files/media/documents/publication/wp7-tlateloco\\_tested\\_final\\_-\\_ver\\_2.pdf](https://www.wilsoncenter.org/sites/default/files/media/documents/publication/wp7-tlateloco_tested_final_-_ver_2.pdf).

[13] See, Alec Luhn, Russia’s “slow-motion Chernobyl” at sea, BBC (2 September 2020) <https://www.bbc.com/future/article/20200901-the-radioactive-risk-of-sunken-nuclear-soviet-submarines>; Daniel Keane, Nuclear-powered submarines have “long history of accidents”, Adelaide environmentalist warns ABC News (18 September 2021) <https://www.abc.net.au/news/2021-09-17/nuclear-submarines-prompt-environmental-and-conflict-concern/100470362>.

[14] Treaty of Rarotonga, art 7.

[15] New Zealand Nuclear Free Zone, Disarmament and Arms Control Act 1987 s 11. The submarines will be allowed innocent passage through New Zealand’s territorial sea: s 12.

[16] About the Nuclear Suppliers Group <https://www.nuclearsuppliersgroup.org/en/about-nsg>

[17] See eg, Agreement between the Government of Australia and the Government of the United Kingdom of Great Britain and Northern Ireland on Cooperation of Peaceful Uses of Nuclear Energy, [2021] ATS 1 (entered into force 1 January 2021), art 1(f), art V; Agreement between the Government of Australia and the Government of the United States of America Concerning Peaceful Uses of Nuclear Energy, [2010] ATS 25 (entered into force 22 December 2010), art 8.



30-year lifetime of the submarines [18]. If the submarines are powered by Low Enriched Uranium (LEU), which would considerably lower the risk to proliferation, they will need to be refueled at least once during their lifetime [19]. The US is estimated to need new supplies of LEU by 2038 [20], which is well within the projected timespan of Australia's nuclear-powered submarine fleet. If Australian uranium ends up being used in the military nuclear fuel cycles, then the bilateral nuclear cooperation agreements between Australia and the US and the UK will almost certainly need to be modified to allow for the material's use in military nuclear propulsion. Alternatively, AUKUS might try to sidestep their Nuclear Suppliers Group commitments and create a new trilateral transfer agreement that makes no pretense that certain nuclear material, equipment and technology is to be shared for peaceful purposes. In any case, there will be considerable hypocrisy to Australia insisting that none of its many other trading partners [21] ever use Australian uranium for military purposes, when Australia is trading with the US and the UK for nuclear-powered submarines.

While Australia's future acquisition of nuclear-powered submarines is what has made headlines, AUKUS will also enable Australia to acquire 'additional long-range strike capabilities'[22], which could undermine the international benchmarks of the Missile Technology Control Regime (MTCR).

### Missile Technology Control Regime

This regime aims to control trade in equipment or technology that could contribute to the proliferation of missiles capable of delivering weapons of mass destruction. The MTCR

partner states (of which Australia is one) have agreed, for example, that there should be 'a strong presumption of denial' of transfers of missiles that can carry a nuclear or conventional payload of 500kg over a range of at least 300km [23].

Of particular concern for this regime, therefore, is the AUKUS plan for Australia to receive Tomahawk cruise missiles which can carry a payload of 500kg and have a range of at least 1000km. Given the poor example it sets, Australia's acquisition of such missiles will undoubtedly come as a blow to the 'fragile norm against missile proliferation' [24].

There is no international treaty or rule of customary international law that unambiguously outlaws the acquisition of nuclear-powered submarines by a NNWS. The danger of the AUKUS arrangement lies in the poor precedent it will set for other states as Australia exploits legal loopholes and technicalities that will allow it to acquire and use nuclear material, equipment and technology for non-peaceful, non-proscribed military purposes. This in turn may encourage other NNWS to do the same, which would substantially increase the risk that nuclear material is diverted to nuclear weapons and significantly undermine the efficacy of international non-proliferation regimes.

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[18] Trevor Findlay, [The Australia-UK-U.S. Submarine Deal: Not Necessarily a Sure or a Good Thing](https://www.armscontrol.org/act/2021-11/features/australia-uk-us-submarine-deal-not-necessarily-sure-good-thing), Arms Control Today (November 2021) <https://www.armscontrol.org/act/2021-11/features/australia-uk-us-submarine-deal-not-necessarily-sure-good-thing>. For a discussion of the non-proliferation concerns relating to supplying a NNWS with weapons-grade HEU, see Frank N von Hippel, [The Australia-UK-U.S. Submarine Deal: Mitigating Proliferation Concerns](https://www.armscontrol.org/act/2021-11/features/australia-uk-us-submarine-deal-mitigating-proliferation-concerns), Arms Control Today (November 2021) <https://www.armscontrol.org/act/2021-11/features/australia-uk-us-submarine-deal-mitigating-proliferation-concerns>.

[19] Alan J Kuperman, [How Australia's new leader can fix the submarine deal](https://thebulletin.org/2022/05/how-australias-new-leader-can-fix-the-submarine-deal/), Bulletin of the Atomic Scientists (May 2022) <https://thebulletin.org/2022/05/how-australias-new-leader-can-fix-the-submarine-deal/>;

Sébastien Philippe and Frank von Hippel, [The Feasibility of Ending HEU Fuel Use in the U.S. Navy](https://www.armscontrol.org/act/2016-10/features/feasibility-ending-heu-fuel-use-us-navy), Arms Control Today (November 2016) <https://www.armscontrol.org/act/2016-10/features/feasibility-ending-heu-fuel-use-us-navy>.

[20] US Government Accountability Office, [NNSA Should Clarify Long-Term Uranium Enrichment Mission Needs and Improve Technology Cost Estimates](https://www.gao.gov/assets/480/480126.pdf), GAO-18-126 (February 2018). The US is also projected to run out of HEU by 2060.

[21] For a list of Australia's bilateral nuclear cooperation agreements, see Department of Foreign Affairs and Trade, [Australia's network of nuclear cooperation agreements](https://www.dfat.gov.au/international-relations/security/non-proliferation-disarmament-arms-control/policies-agreements-treaties/nuclear-cooperation-agreements/Pages/australias-network-of-nuclear-cooperation-agreements) <https://www.dfat.gov.au/international-relations/security/non-proliferation-disarmament-arms-control/policies-agreements-treaties/nuclear-cooperation-agreements/Pages/australias-network-of-nuclear-cooperation-agreements>.

[22] Prime Minister of Australia, [Australia to pursue nuclear-powered submarines through new trilateral enhanced security partnership](https://www.pm.gov.au/media/australia-pursue-nuclear-powered-submarines-through-new-trilateral-enhanced-security) (Press release, 16 September 2021) <https://www.pm.gov.au/media/australia-pursue-nuclear-powered-submarines-through-new-trilateral-enhanced-security>.

[23] Missile Technology Control Regime, [Guidelines for Sensitive Missile-Relevant Transfers](https://mtrc.info/guidelines-for-sensitive-missile-relevant-transfers/), para 2. <https://mtrc.info/guidelines-for-sensitive-missile-relevant-transfers/>.

[24] Kolja Brockmann, [The Missile Technology Control Regime at a crossroads](https://www.sipri.org/commentary/topical-backgrounders/2021/missile-technology-control-regime-crossroads), Stockholm International Peace Research Institute (1 October 2021) <https://www.sipri.org/commentary/topical-backgrounders/2021/missile-technology-control-regime-crossroads>; Anastasia Kapetas, [Limiting the nuclear-proliferation blowback from the AUKUS submarine deal](https://www.aspirstrategist.org.au/limiting-the-nuclear-proliferation-blowback-from-the-aukus-submarine-deal/), The Strategist (21 September 2021) <https://www.aspirstrategist.org.au/limiting-the-nuclear-proliferation-blowback-from-the-aukus-submarine-deal/>.

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# PACIFIC PERSPECTIVES ON PROPOSED AUKUS NUCLEAR-PROPELLED SUBMARINES

**TALEI LUSCIA MANGIONI**

The recently announced AUKUS security pact between Australia, the United Kingdom and the United States, which pledges a nuclear-powered submarine fleet for Australia, is vastly out of step with a strong sense of Pacific regionalism and the long-standing commitment to a Nuclear Free Pacific. The pact also promises "further trilateral collaboration under AUKUS to enhance joint capabilities and interoperability", including "cyber capabilities, artificial intelligence, quantum technologies and additional undersea capabilities"[1].

This decision results from escalating rivalry between the United States and China, in which Australia has been portrayed as the "Deputy Sheriff" or otherwise, the "51st state of the United States of America." After several decades of Australian flippancy in foreign policy approach towards the Pacific, this renewed interest fundamentally based on strategic competition led former Prime Minister Scott Morrison to champion a diplomatic "Pacific Step Up" since 2017. This "Rush for Oceania"[2] to counter an allegedly growing China through a maritime Belt and Road Initiative, exists alongside a chorus of other powers including, Britain's "Pacific Uplift" and the United States' "Pacific Pledge" in what they are expounding as an essential aspect of securitisation of the amalgamated "Indo-Pacific" region. AUKUS and its upscaling of military defence capabilities suggests an amplifying of hostilities and now situates the Pacific within the crosshairs of escalating nuclear threats and potential disasters.

## **Nuclear Colonialism in the Pacific**

With this act, Australia brutally overlooked the history of nuclear colonialism in the Pacific region. Over 315 atmospheric and underground nuclear tests took place across what is currently known as the Marshall Islands, Australia, Kiribati and French Polynesia when they were territories or colonies of the United States, the United Kingdom/Australia and France, respectively. The tests have been responsible for displacement, severe

“ AUKUS and the proposed nuclear submarines are just another extension of this nuclear architecture in a Pacific world that has actively resisted and protested it for decades.

environmental contamination and numerous health consequences for impacted communities. The fallout of these tests did not conveniently end at a state border drawn in the ocean or desert but was a form of transboundary harm that impacted many countries across the Pacific. This was exacerbated by improper nuclear waste disposal and dumping, nuclear storage and nuclear power gone wrong, as we saw in Fukushima in 2011. The Pacific also hosts several of the United States military bases and port facilities that neither "confirm nor deny" the storage of nuclear weapons on their sea vessels. AUKUS and the proposed nuclear submarines are seen as just another extension of this nuclear architecture in a Pacific world that has actively resisted and protested it for decades.

## **No consultation with "our dear Pacific family"**

Morrison proposed that AUKUS would "enhance our contribution to our growing network of partnership in the Indo-Pacific region", especially "our dear Pacific family". However, despite the Pacific being described as "family" to Australia, a former member of the US House

[1] Prime Minister of Australia (2021) [Address: AUKUS - Canberra, ACT](https://pmtranscripts.pmc.gov.au/release/transcript-44110), <https://pmtranscripts.pmc.gov.au/release/transcript-44110>, accessed July 2022.

[2] Matthew Grant Allen et al (2018) [SGDIA Working Paper Series The Rush for Oceania](https://www.researchgate.net/publication/331653641_SGDIA_WORKING_PAPER_SERIES_THE_RUSH_FOR_OCEANIA_CRITICAL_PERSPECTIVES_ON_CONTEMPORARY_OCEANS_GOVERNANCE_AND_STEWARDSHIP_Reclaiming_Oceania_Collective), [https://www.researchgate.net/publication/331653641\\_SGDIA\\_WORKING\\_PAPER\\_SERIES\\_THE\\_RUSH\\_FOR\\_OCEANIA\\_CRITICAL\\_PERSPECTIVES\\_ON\\_CONTEMPORARY\\_OCEANS\\_GOVERNANCE\\_AND\\_STEWARDSHIP\\_Reclaiming\\_Oceania\\_Collective](https://www.researchgate.net/publication/331653641_SGDIA_WORKING_PAPER_SERIES_THE_RUSH_FOR_OCEANIA_CRITICAL_PERSPECTIVES_ON_CONTEMPORARY_OCEANS_GOVERNANCE_AND_STEWARDSHIP_Reclaiming_Oceania_Collective), accessed December 2021.

of Representatives, Robert Underwood, points out that again, "It goes without saying that no one in the island Pacific was consulted or given advance notice." AUKUS came as an unwelcome surprise in many respects, given the Pacific's nuclear history. Marshall Islands National Nuclear Commission Chair Rhea Moss-Christian asserted that "we have nuclear legacies we are still contending with..." and therefore "for the benefit of regional partnership consultation is the way to go"[3].

Similarly, Prime Minister of Kiribati Taneti Maamau stressed the nuclear harms that were inflicted on Kiribati when the United Kingdom and the United States conducted more than 30 atomic and nuclear hydrogen tests between 1957 and 1962. He maintained: "Our people were victims of nuclear testing... we still have trauma... with that in mind, with anything to do with nuclear, we thought it would be courtesy to raise it, to discuss it with your neighbours" [4].

Several Pacific leaders made statements about the nuclear history of the Pacific region at the United Nations General Assembly 76th General Debate Summit. Solomon Islands Prime Minister Manasseh Sogavare stated that the Solomon Islands as a state-party to the Rarotonga South Pacific Nuclear Free Zone, "would like to keep our region nuclear-free and put the region's nuclear legacy behind us"[5]. He highlighted that the "Solomon Islands is committed to ensuring the Pacific region remains a peaceful region where its people can live free and worthwhile lives. We do not support any form of militarisation in our region that could threaten regional and international peace and stability."

Fiji's Prime Minister Voreqe Bainimarama captured a long-standing tension in the Pacific between strategic competition and climate change, stating, "If we can spend trillions on missiles, drones, and nuclear submarines, we can fund climate action"[6].

Marshall Islands President David Kabua reiterated the immense economic, cultural and humanitarian costs from nuclear weapons



Image: Fijian Prime Minister Voreqe Bainimarama speaks at the first Meeting of States Parties to the TPNW, June 2022. Credit: ICAN.

testing inflicted on the Marshall Islands, emphasising that "Despite our commitment, we simply lack the capacity to fully address our local needs. We tirelessly underscore that no people or nation should ever have to bear a burden such as ours, and that no effort should be spared to move towards a world free of nuclear weapons and nuclear risk, through any and all effective pathways"[7].

New Zealand Prime Minister Jacinda Ardern swiftly responded to the news and publicly announced that New Zealand would ban nuclear submarines from entering its waters. In calling attention to her own state's history of promotion of a nuclear free nation, she alluded to New Zealand's "tireless efforts to rid the world of nuclear weapons and the spectre of a conflict that no one can recover from"[8].

Separately from the UNGA session, New Caledonia's pro-independence President Louis Mapou said that the announcement of AUKUS has drastically destabilised the region. He argued that "the breach of the submarine contract between France and Australia and announcement of a new Anglo strategic axis inevitably places New Caledonia at the heart of French geopolitics in the Indo-Pacific zone from a diplomatic point of view."[9]

[3] ABC Pacific Beat (2021), [Australian nuclear-powered submarine deal raises concerns in the Pacific](https://www.abc.net.au/radio-australia/programs/pacificbeat/australian-nuclear-submarine-deal-raises-concerns-in-the-pacific/13546104), <https://www.abc.net.au/radio-australia/programs/pacificbeat/australian-nuclear-submarine-deal-raises-concerns-in-the-pacific/13546104>, accessed December 2021.

[4] ABC News (2021), [Kiribati President says AUKUS nuclear submarine deal puts Pacific at risk](https://www.abc.net.au/news/2021-09-28/kiribati-president-says-aukus-nuclear-submarine-deal-puts-pacific-at-risk), <https://www.abc.net.au/news/2021-09-28/kiribati-president-says-aukus-nuclear-submarine-deal-puts-pacific-at-risk>, accessed 5 July 2022.

[5] Solomon Islands (2021), [Statement by Honourable Manasseh Damukana Sogavare](https://estatemnts.unmeetings.org/estatemnts/10.0010/20210925/dJqXDXV2hTWs/YDr5OuU1wB3k_en.pdf), Prime Minister, [https://estatemnts.unmeetings.org/estatemnts/10.0010/20210925/dJqXDXV2hTWs/YDr5OuU1wB3k\\_en.pdf](https://estatemnts.unmeetings.org/estatemnts/10.0010/20210925/dJqXDXV2hTWs/YDr5OuU1wB3k_en.pdf), accessed December 2021.

[6] Fiji (2021), [Fiji's National Statement to UNGA76](https://estatemnts.unmeetings.org/estatemnts/10.0010/20210925/98yJHEsSga5z/MltsCOdnC6J2_en.pdf), [https://estatemnts.unmeetings.org/estatemnts/10.0010/20210925/98yJHEsSga5z/MltsCOdnC6J2\\_en.pdf](https://estatemnts.unmeetings.org/estatemnts/10.0010/20210925/98yJHEsSga5z/MltsCOdnC6J2_en.pdf), accessed December 2021.

[7] Republic of the Marshall Islands (2021), [President H.E. Mr David Kabua](https://estatemnts.unmeetings.org/estatemnts/10.0010/20210922/QsJ9c7loOI5b/peY1lawwuAmL_en.pdf), [https://estatemnts.unmeetings.org/estatemnts/10.0010/20210922/QsJ9c7loOI5b/peY1lawwuAmL\\_en.pdf](https://estatemnts.unmeetings.org/estatemnts/10.0010/20210922/QsJ9c7loOI5b/peY1lawwuAmL_en.pdf), accessed December 2021.

[8] New Zealand (2021), [New Zealand Statement delivered by Rt Hon Jacinda Ardern](https://estatemnts.unmeetings.org/estatemnts/10.0010/20210924/ajen3uMeQSDH/tWu353daRXCC_en.pdf), [https://estatemnts.unmeetings.org/estatemnts/10.0010/20210924/ajen3uMeQSDH/tWu353daRXCC\\_en.pdf](https://estatemnts.unmeetings.org/estatemnts/10.0010/20210924/ajen3uMeQSDH/tWu353daRXCC_en.pdf), accessed December 2021.

[9] Anthony Galloway, SMH (2021) [New Caledonia caught in the middle of Australia-France submarine spat](https://www.smh.com.au/politics/federal/new-caledonia-caught-in-the-middle-of-australia-france-submarine-spat-20211125-p59c4v.html), <https://www.smh.com.au/politics/federal/new-caledonia-caught-in-the-middle-of-australia-france-submarine-spat-20211125-p59c4v.html>, accessed December 2021.

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Maureen Penjueli of the Pacific Network on Globalisation observed that the Pacific views "Australia playing a key, often unilateral role, taking decisions around peace and security which is not aligned with Pacific peoples' immediate priorities around security, in particular human security."

The Pacific Conference of Churches leader Reverend James Bhagwan has recognised the cost nuclear accidents impose on the Pacific's spiritual, cultural and economic base: the ocean. He explains, "The ocean impacts our life...We are the fish basket of the world. So if one submarine comes in and something goes wrong and the nuclear waste from that submarine gets into our ocean, that's too much already."

Youngsolwara and Pacific Network on Globalisation campaigner Joey Tau critiqued AUKUS, saying that "It contradicts what [Australia] has continued to commit to the Pacific in terms of ensuring it is a nuclear-free zone"[10]. Tau pointed out that the issues of climate change and COVID-19 are more critical issues to be addressed today.

Indeed, Australia's persistent declaration that it is a member of the "Pacific family" in the context of flagrant inattention to the calls for solidarity with the region's Nuclear Free Pacific vision has been met with both condemnation and disappointment.

### **A Nuclear-Free Blue Pacific**

Today, a newly articulated vision of the Blue Pacific re-centres the Pacific's historical and political sense of regionalism based upon the protection of their ocean. Journalist Nic Maclellan, pointing to the work of Pacific Studies scholar Epli Hau'ofa, highlights that this sense of regionalism rests upon the historic struggle for a nuclear free Pacific movement, with the 1985 Rarotonga Treaty (the South Pacific Nuclear Free Zone treaty) being a primary example of this[11].

Pacific politics scholar Greg Fry warns that AUKUS, with the arrangement that includes "home-basing" in particular may contravene South Pacific Nuclear Free Zone prohibitions "under article 5 of the Rarotonga treaty, on the

stationing of nuclear weapons within the zone" [12]. AUKUS stands in stark contrast to the renewed interest of the primary regional body of the Pacific Islands Forum (of which Australia is a member) in a Nuclear Free Pacific. We should also note Japan's announcement that it would be releasing one million tonnes of radioactive wastewater from Fukushima, which the Pacific has vehemently protested[13].

In honour of the International Day Against Nuclear Tests, the Pacific Islands Forum held a public panel entitled "Securing a Nuclear-Free Blue Pacific." Secretary-General of the Pacific Islands Forum, Henry Puna again emphasised the history of the region's deep political struggle for a Nuclear Free Pacific, stating that "The strong leadership of all our Forum leaders past and present who in unity and solidarity with those affected have vowed never to allow these atrocities to befall our beloved blue Pacific home again. Nuclear testing is a legacy that no people or nation should ever have to endure. Indeed nuclear testing was a key political driver for the establishment of our Pacific Islands Forum 50 years ago"[14].

The Chair of the Pacific Islands Forum, Fiji Prime Minister Voreqe Bainimarama, with his father, a veteran survivor of the Grapple test series in Kiribati, reiterated that the unresolved nuclear testing legacy that continues "to pose a clear and present danger to the livelihoods of the peoples of the Blue Pacific". He asserted that "a just resolution remains evasive to this date and we call on those responsible to take meaningful steps to address these lingering issues"[15].

The Pacific Islands Forum moved to host a meeting for Nuclear Weapon Free-Zones in the Blue Pacific in 2022. As AUKUS continues to pose yet another nuclear threat to Pacific livelihoods, Pacific peoples from all levels of society continue to speak against militarisation and nuclear proliferation in defence of peace in their region.

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[10] ABC Pacific Beat (2021), [Australian nuclear-powered submarine deal raises concerns in the Pacific](https://www.abc.net.au/radio-australia/programs/pacificbeat/australian-nuclear-submarine-deal-raises-concerns-in-the-pacific/13546104), <https://www.abc.net.au/radio-australia/programs/pacificbeat/australian-nuclear-submarine-deal-raises-concerns-in-the-pacific/13546104>.

[11] Nic Maclellan (2021), [AUKUS disrupts "a very peaceful part of planet Earth"](https://insidestory.org.au/aukus-disrupts-a-very-peaceful-part-of-planet-earth/), <https://insidestory.org.au/aukus-disrupts-a-very-peaceful-part-of-planet-earth/>, accessed December 2021.

[12] Greg Fry (2021), [AUKUS undermines Australia's "Pacific family"](https://devpolicy.org/aukus-undermines-australias-pacific-family-20211104/), <https://devpolicy.org/aukus-undermines-australias-pacific-family-20211104/>, accessed December 2021.

[13] Tau and Mangioni (2021) [If it's safe, dump it in Tokyo. We in the Pacific don't want Japan's nuclear wastewater](https://www.theguardian.com/world/2021/apr/26/if-its-safe-dump-it-in-tokyo-we-in-the-pacific-dont-want-japans-nuclear-wastewater), <https://www.theguardian.com/world/2021/apr/26/if-its-safe-dump-it-in-tokyo-we-in-the-pacific-dont-want-japans-nuclear-wastewater>, accessed December 2021.

[14] Pacific Islands Forum (2021) [Blue Pacific Talanoa Series 2021, Episode 1, August 27, 2021](https://www.youtube.com/watch?v=RSR_3mj4OnA), [https://www.youtube.com/watch?v=RSR\\_3mj4OnA](https://www.youtube.com/watch?v=RSR_3mj4OnA), accessed December 2021.

[15] Ibid.



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# INDONESIAN AND OTHER ASEAN STATE CONCERNS ABOUT THE PROPOSED AUKUS NUCLEAR-PROPELLED SUBMARINE DEAL

**MUHADI SUGIONO**

The agreement of a trilateral security pact between Australia, the United States and Britain (AUKUS) brought several responses from South East Asian states, but a key component of the proposal - that Australia will acquire nuclear-propelled submarines, brought considerable criticism.

Indonesia and Malaysia expressed their strong reservations over the decision to acquire nuclear-powered submarines, despite the Australian government's insistence that the submarines will not carry nuclear weapons.

The Indonesian government responded to the announcement almost immediately, with a statement on 17 September 2021 stating that it was 'deeply concerned over the continuing arms race and power projection in the region.' The statement also stressed 'the importance of Australia's commitment to continue meeting all of its non-nuclear obligations.'

A month later, Foreign Minister Retno Marsudi reiterated the Indonesian view that the proposed submarine deal would 'certainly not benefit anyone.' She added that 'efforts to maintain a peaceful and stable region must continue', and that Indonesia did not want to see an arms race in the region [1].

The Indonesian government's view of the issue is not without basis. Indonesia is a strong proponent of nuclear disarmament. Former Foreign Minister, Dr. Hasan Wirayuda, referred to nuclear disarmament as the 'DNA of Indonesian foreign policy.' Despite the government of Australia seeking to convince the Indonesian government that Australia does not have any intention to develop nuclear weapons, acquiring HEU-powered nuclear submarines would set an unwelcome precedent.

This view was further reflected in a statement in which Indonesia stressed the importance of Australia's commitment to continuing to fulfill all of its obligations on nuclear non-proliferation. Such a commitment is very important for Indonesia.

- “ ———

Allowing this to happen will open a Pandora's box of nuclear proliferation and set a precedent that other countries will follow.

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Even if Australia does not intend to develop nuclear weapons, its acquisition of nuclear submarines would push open a loophole in the IAEA's safeguards provisions, and thus poses a risk to the NPT. While they do not fit neatly into any of the three pillars of the NPT, nuclear submarines are situated in something of a grey area. For a non-nuclear state like Australia to acquire them requires a twisting of what is meant by the peaceful use of nuclear energy. Nuclear powered submarines would fall into a category of military use of nuclear material, even if this is for non-explosive means. Allowing this to happen could open a Pandora's box of nuclear proliferation and set a precedent that other countries will seek to follow. The Indonesian government is concerned by this issue and will raise it as a pressing concern at the NPT Review Conference in August 2022.

The response to the Australian government's intention to acquire nuclear-powered submarines did not come only from the government of Indonesia. As soon as the Indonesian Foreign Minister commented and raised concerns about the decision, the hashtag '#AustraliaBerbohong' (Australia Lied) became a trending topic on Twitter. While it is unclear to what extent this reflected the views of the Indonesian population overall, the messages surely reflect the disappointment with the then-Australian government's decision.

[1] Quoted in Sebastian Strangio, [Indonesia and Malaysia Reiterate Concerns About AUKUS Pact](https://thediplomat.com/2021/10/indonesia-and-malaysia-reiterate-concerns-about-aukus-pact/), The Diplomat, October 19, 2021. <https://thediplomat.com/2021/10/indonesia-and-malaysia-reiterate-concerns-about-aukus-pact/>



Image: Indonesian Foreign Minister Retno Marsudi.  
Credit: Reuters.

Making such an important decision, which will undoubtedly affect Indonesia as well as the geopolitical landscape of the region, without consulting or informing its closest neighbours was seen as a betrayal of the serious efforts which have been made to improve bilateral relations between Indonesia and Australia.

Malaysia's response was similarly pointed. Its Prime Minister reiterated Kuala Lumpur's stance on not allowing nuclear-powered vessels to enter Malaysia's territorial waters, while its Defence Minister publicly noted that he would visit China for consultations. Former Prime Minister Mahathir Mohamad warned that AUKUS increased the risk of great power conflict in Southeast Asia[2].

Other ASEAN states have been less overtly outspoken. The Philippines, for example, has generally accepted the broad aims of AUKUS, noting that it provides a counterbalance to what Manila sees as an increasingly assertive China. Nonetheless, following the AUKUS announcement, it was revealed that the then-President, Duterte, was concerned that the pact could result in a 'nuclear arms race'[3]. Singapore has expressed hopes that the deal will 'contribute constructively to the peace and stability of the region and complement the regional architecture'[4]. Cambodian Foreign Minister Prak Sokhonn noted that Cambodia expects that 'AUKUS will not fuel unhealthy rivalries and further escalate tension'[5]. Vietnam's response, which noted China's assertiveness in the South China Sea, nonetheless reiterated the view that nuclear powered submarines raised unwelcome proliferation risks and that safety and

environmental concerns should be paramount. The submarine deal would not be seen as a 'peaceful use' of nuclear materials.

Thus, even as there was no formal single ASEAN response to the nuclear submarines deal, concerns about proliferation and the possibility of an arms race in the region reflected the hopes and wishes held by all these states to make South East Asia a peaceful zone free from excessive interference by outside powers, as manifested in the 1971 ZOPFAN declaration (for a Zone of Peace, Freedom and Neutrality). There is a strong and enduring view that South East Asia must remain free from nuclear weapons, and the 1995 South East Asian Nuclear Weapons Free Zone Treaty (SEANWFZ) is seen as an uncompromising reflection of this.

The nuclear submarines deal led many in the region to accuse the Australian government of the time as being insensitive to the aspirations of its neighbouring states. While South East Asian nations generally avoid 'taking sides' in military competition between the US/UK/Australia and China, they nevertheless remain concerned about any destabilising strategic decisions and the possibility of an escalating arms race in their regional environment. If the nuclear submarine component of AUKUS goes ahead, it presages regional tensions. Indonesia will therefore play a leading role in efforts at the 2022 NPT RevCon to close the Comprehensive Safeguards Agreement 'paragraph 14 loophole', as part of its ongoing commitment to nuclear non-proliferation and disarmament.

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[2] William Choong and Ian Storey, South East Asian Responses to AUKUS: Arms Racing, Non-Proliferation and Regional Stability, ISEAS Yusof Ishak Institute Articles and Commentary, 14 October 2021. <https://www.iseas.edu.sg/articles-commentaries/iseas-perspective/2021-134-southeast-asian-responses-to-aukus-arms-racing-non-proliferation-and-regional-stability-by-william-choong-and-ian-storey/>.

[3] Quoted in William Choong and Ian Storey, op.cit.

[4] Quoted in Strangio op cit.

[5] Quoted in Strangio op cit.



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