

ASSESSING THE EFFECTIVENESS OF THE QUAD IN THE INDO-PACIFIC REGION

CDR Amy Bulters¹

Royal Australian Navy

INTRODUCTION

The Quad, also commonly but incorrectly referred to as the Quadrilateral Security Dialogue², is a partnership between the four nations of Australia, India, Japan and the United States of America (US). Whilst the Quad had an early chequered history from its inception in 2004, it was re-invigorated in 2017 and has slowly taken on a more institutionalized format since. Alongside this more institutionalized format, there has been much written about the Quad which has included not only observations on the effectiveness of the partnership³, but also speculation on the future of the Quad, inclusive of recommendations for future formats that the partnership should adopt⁴. The literature to date has assessed the Quad in a variety of ways, from counting the number and level of meetings held, detailing the initiatives that have been established, and conducting ‘perception’ surveys with regional and Quad nations. What appears missing from the literature is an empirical quantitative measurement of the Quad’s effectiveness in advancing a free and open Indo-Pacific (FOIP)⁵. This is a significant gap, given that advancing a FOIP is a key component of the Quad official vision⁶. Therefore, this study investigates whether the revitalized Quad has had a measurable positive impact on Indo-Pacific maritime

¹ The views expressed within are those of the author and do not necessarily reflect those of the Australian Department of Defence.

² “The Quad,” Australian Government Department of Foreign Affairs and Trade, accessed July 23, 2025, <https://www.dfat.gov.au/international-relations/regional-architecture/quad>.

³ For examples of papers that make observations, see: Rafiq Dossani, “After 18 Years, Has the Quad Failed?” *RAND*, March 26, 2025, <https://www.rand.org/pubs/commentary/2025/03/after-18-years-has-the-quad-failed>; Mahima Duggal, “Quad 4.0? To securitize or not to securitize,” *Focus Asia Perspective & Analysis*, August 9, 2022, <https://www.isdp.eu/wp-content/uploads/2022/08/ISDP-Focus-Asia-Quad-4.0-Mahima-Duggal.pdf>; Tomohiko Satake, “The Rise of “Minilateralism” in the Indo-Pacific: the Quad & AUKUS,” *Japan SPOTLIGHT*, March/April 2023, pp. 29-32; Hamail Tahir and Fouzia Amin, “Assessing the Effectiveness of Quad in Maritime Containment of China in the Indo-Pacific Region,” *Sir Syed Journal of Education & Social Research*, Vol. 6, No. 4, 2023, pp. 1-6; and Wei Zongyou, “The evolution of the ‘Quad,’” *Horizons: Journal of International Relations and Sustainable Development*, No. 25, Winter 2024, pp. 82-99.

⁴ For example of papers that provide recommendations see: Curtis et al, “Quad: The next phase,” *Centre for a New American Security*, June 18, 2025, https://s3.us-east-1.amazonaws.com/files.cnas.org/documents/quadnextphase_final-WEB.pdf; and Kulsoom et al., “The Quad and East Asian security: Evaluating its role in countering China’s influence,” *Journal of Religion & Society*, Vol. 3, No. 1, 2025, pp. 37-51.

⁵ For a more detailed explanation of the Free and Open Indo-Pacific, see the ‘Free and Open Indo-Pacific’ section on page 7 of this paper.

⁶ “Quad Leaders’ Vision Statement – Enduring Partners for the Indo-Pacific,” Prime Minister of Australia, May 20, 2023, <https://www.pm.gov.au/media/quad-leaders-vision-statement-enduring-partners-indo-pacific>.

security⁷, based on empirical indicators of interstate maritime incidents, piracy and armed robbery incidents, and Illegal, Unregulated and Unreported (IUU) fishing risk.

As FOIP is a broad concept which encompasses a myriad of key themes such as economic prosperity and stability across the Indo-Pacific region, the scope of this paper has been limited to investigating only maritime security contributions to FOIP, and will not explore Quad efforts outside of this.

The paper concludes that the Quad has had no tangible impact on improving maritime security initiative alone in parts of the Indo-Pacific region, although it is expected that given more time the effectiveness of Quad initiatives is likely to become more evident in the region.

The paper begins by providing a background of the Quad and relevant initiatives since reinvigoration. The paper next defines the FOIP concept, and identifies what elements of maritime security can be considered key contributors to FOIP for the purpose of this study. The methodology for the study is then provided which includes the author's definition of effectiveness in the context of maritime security, alongside a synopsis on the data and limitations of the study. The fourth part of the paper introduces the four case studies with which Quad effectiveness is assessed, before the paper concludes with findings and some recommendations for future studies in this field.

1. QUAD BACKGROUND

The Quad was first established in 2004 under the pretext of providing humanitarian assistance following the devastating Indian Ocean Tsunami, however, after only one formal meeting between Quad leaders it was quickly disbanded in 2007, having achieved little beyond the initial Tsunami response support⁸. This paper will not delve into the past history or reasons for the disbandment of the Quad as this has been covered extensively⁹. While former Japanese Prime Minister (PM) Abe has been credited with creating and promoting the concept of a 'free and open Indo-Pacific

⁷ For the purpose of this paper, Till's definition of maritime security as the maintenance of good order at sea is used. Geoffrey Till, *Seapower: A Guide for the Twenty-First Century 3rd ed.* Routledge, 2013, pp. 282-283.

⁸ Patrick G. Buchan and Benjamin Rimland, "Defining the Diamond," *Center for Strategic and International Studies Briefs*, March 16, 2020, https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/200312_BuchanRimland_QuadReport_v2%5B6%5D.pdf.

⁹ For a detailed analysis on reasons for the collapse of, and reformation of the Quad, see: Kei Koga, "Tactical hedging as coalition-building signal: The evolution of Quad and AUKUS in the Indo-Pacific," *The British Journal of Politics and International Relations*, Vol. 27, No. 1, 2024, pp. 109-134; and Frederick Kliem, "Why Quasi-Alliances will persist in the Indo-Pacific? The Fall and Rise of the Quad," *Journal of Asian Security and International Affairs*, Vol. 7, No.3, 2020, pp. 271-304.

(FOIP)¹⁰, the momentum for a Quad renewal built following the inauguration of President Donald Trump as the 45th President of the USA in 2017¹¹. This culminated in the first meeting since 2007 of senior officials from the Quad nations on the sidelines of the Association of Southeast Asian Nations (ASEAN) summit in Manila in November 2017¹². Since this time the Quad has further formalized with ministerial-level meetings commencing in 2019 and leader-level meetings commencing in 2021, both being held at least annually. In the initial stages of the reforming of the Quad from 2017 until 2020, despite senior officials from Quad nations meeting six times, beyond press releases that affirm member's commitments to advance a Free and Open Indo Pacific, and vaguely detailed agreements to co-operate, there is little evidence available in open-source reporting of the establishment of any new initiatives or working groups¹³. The first Quad Foreign Ministers meeting occurred on 26 September 2019 in New York¹⁴, with two further meetings occurring prior to the first Quad Leaders meeting, but similar to the Senior Official meetings, there was no announcement of concrete initiatives, rather reaffirmation of FOIP and a concurrence to further develop cooperation¹⁵. The initial Quad Leaders' Summit, held virtually on 12 March 2021, was the first meeting that announced concrete actions, with the establishment of a Quad Critical and Emerging Technology Working Group, a Quad Climate Working Group, and a Quad Vaccine Partnership which included the launch of a Quad Vaccine Experts Group¹⁶. Since this time there has been a further five Quad Leaders' Summits and seven Quad Foreign Ministers' meetings, of which most announced new initiatives or provided updates on Quad activities in-train, alongside numerous Senior Official level meetings, working groups, workshops and collaborations. Perhaps most significantly, following the 2023 Quad Leaders' Summit, a Quad Leaders' Vision Statement was published in which the Leaders stated a:

...steadfast commitment to work through the Quad to support a free and open

¹⁰ "Address by Prime Minister Shinzo Abe at the Opening Session of the Sixth Tokyo International Conference on African Development," Ministry of Foreign Affairs Japan, August 27, 2016, https://www.mofa.go.jp/afr/af2/page4e_000496.html.

¹¹ Alin Barbantan, *Pacific Dream? The Evolution of US Strategic Culture and Alliances in the Indo-Pacific*, Palgrave Macmillan, 2024, Chap. 5.

¹² Ankit Panda, "US, Japan, India, and Australia hold working-level Quadrilateral meeting on regional cooperation," *The Diplomat*, November 13, 2017.

¹³ Senior Quad officials met virtually or in-person on November 12, 2017, June 7 and November 15, 2018, May 31, 2019, September 25 and December 18, 2020. Press Releases for all meetings can be found at "Press Releases," Ministry of Foreign Affairs of Japan, accessed August 19, 2025, <https://www.mofa.go.jp/press/release/index.html#archives>.

¹⁴ Ibid.

¹⁵ Australian Government Department of Foreign Affairs and Trade, "The Quad."

¹⁶ Ibid.

*Indo-Pacific that is inclusive and resilient*¹⁷.

and to:

*...respect the centrality, agency, and leadership of... ASEAN, the Pacific Islands Forum, and the Indian Ocean Rim Association...*¹⁸.

2. QUAD INITIATIVES

A review of the respective Quad government websites and press releases detail the many undertakings that the Quad has either commenced or planned, including Memorandums of Co-operation, establishing working groups and sharing of solutions. Table 1 displays initiatives announced to date by working group, and for the sake of brevity is limited only to those initiatives with established effects, and neglects initiatives that have not established a measurable physical outcome¹⁹.

Table1. Quad Initiatives²⁰

Working Group	Date Launched	Initiative	Key Details
Climate	2023	Clean Energy Supply Chains Diversification Program	- USD 2 million committed to solar projects in Comoros, Fiji, Madagascar and Seychelles
	2022	QUAD Climate Change Adaption and Mitigation Package (Q-CHAMP)	- created a Climate Information Services Taskforce
Critical and Emerging Technology	2023	Open Radio Access Network (Open RAN)	- deployed Open RAN to Palau - produced Open RAN Security report - conducted online workshop - \$20 million pledged to expand Asia Open RAN (AORA)
	2023	Quad Investors Network (QUIN)	
	2022 2023	Quad Technology Business and Investment Forums held	
	2023	Quad International Standards Cooperation Network (Q-ISCN)	
		Advancing Innovations for Empowering NextGen Agriculture	- Memorandum of co-operation signed and \$7.5 million funded for joint research

¹⁷ “Prime Minister of Australia, “Quad Leaders’ Vision Statement – Enduring Partners for the Indo-Pacific.”

¹⁸ Ibid.

¹⁹ For example, initiatives that use the verbs ‘sharing, working with, promoting, exploring, will, or intend to’ are deliberately excluded due to an inability to effectively measure these initiatives.

²⁰ For announcements on Quad initiatives see: Australian Government Department of Foreign Affairs and Trade, “The Quad.”; Ministry of Foreign Affairs of Japan, “Press Releases.”; “Quad Leaders’ Summit 2023,” Commonwealth of Australia Department of the Prime Minister and Cabinet, May 24, 2023, <https://www.pmc.gov.au/resources/quad-leaders-summit-2023>; and “Quad February 2025,” Government of India Ministry of External Affairs, February 2025, https://www.mea.gov.in/Portal/ForeignRelation/Unclassified_Quad_Brief_Feb_2025.pdf.

		(AI-ENGAGE)	
	2023	QUAD STEM Fellowship	- 100 positions to study STEM Master or Doctorate in US/Japan - 50 Undergraduate Engineering scholarships in India
Cybersecurity	2023	Roundtable on machine learning in cyber security held	
	2023	Quad Cyber Challenge in the Indo-Pacific	- Estimated 85000 people took part, with 6000 schools, universities and non-profit organizations taking cybersecurity action
	2023	Developed Secure Software Joint principles	
Health Security	2021	Vaccine Partnership (evolved to Health security partnership in 2023)	- provision of over 400 million COVID-19 vaccines to the Indo-Pacific region - provided USD 5.6 million to the COVAX Advance Market Commitment to expand vaccine manufacturing
	2024	Quad Cancer Moonshot	- provision of funding, training, medical equipment and vaccines for cervical cancer
		Package to strengthen ability to detect and respond to disease outbreaks	- provision of funding, training, data systems and laboratories
		Technical engagement	-Pandemic preparedness tabletop exercise conducted for Quad officials
Infrastructure	2023	Quad Partnership for Cable Connectivity and Resilience	- established an Indo-Pacific cable connectivity and resilience program - invested AUD 140 million in undersea cable builds in Pacific region
	2024	Cable Connectivity and Resilience Centre	- delivering workshops and technical assistance to Indo-Pacific countries
	2023	Quad Infrastructure Fellowships Program	- Provision of 2200 university scholarships, professional or government exchange programs (1300 delivered to date)
		Delivery of training programs to build capacity in debt management, and infrastructure development	
	2022	Quad Debt Management Resource Portal	
Space	2022	Extreme Precipitation Steering Committee	- 2 workshops held
	2022	Quad Satellite Data Portal	- Training workshops conducted
		Workshops on Long-Term sustainability of space held	
Counter-Terrorism		Multiple table-top exercises and forums held	
Maritime Security	2022	Indo-Pacific partnership for Maritime Domain	- Sharing of satellite-based data to Indo-Pacific nations for increased maritime domain

		Awareness (IPMDA)	awareness
	2025	Maritime Initiative for Training in the Indo-Pacific (MAITRI)	Training to maximize use of IPMDA*
	2025	Quad-at-Sea Ship Observer Mission	- Quad nation observers sailed aboard US Coast Guard Cutter from Palau to Guam
		Maritime legal dialogues held	- Two held at time of publishing
Humanitarian Assistance and Disaster Relief (HADR)	2022	Quad Partnership on Humanitarian Assistance and Disaster Relief in the Indo-Pacific	- contributed over USD 5 million to Papua New Guinea following 2024 landslide - contributed over USD 4 million to Vietnam following Typhoon Yagi - contributed over USD 30 million to Myanmar following 2025 earthquake - hosted HADR table-top exercises - hosted workshop on pandemic preparedness in 2025 which included participation by 15 Indo-Pacific countries
	2025	Quad Indo-Pacific Logistics Network	- Convened a table-top exercise to leverage shared logistics capabilities
Policy Planners' Dialogue		Hosted Raisina Young Leaders' Fellowship-Quad, Quad Think Tank Network and Quad Policy Planners Dialogue sessions	
	2025	Quad Critical Minerals Initiative	- collaboration on securing critical mineral supply chains

* At the time of publishing the first MAITRI workshop was yet to be conducted but was scheduled to be hosted in India in the second half of 2025.

In the most recent Quad Foreign Ministers' Meeting on 01 July 2025 a new agenda was announced that:

...focused on four key areas: maritime and transnational security, economic prosperity and security, critical and emerging technology, and humanitarian assistance and emergency response²¹.

Based on this statement it is unclear if all the working groups remain or have been merged, and if all of the existing initiatives have been rolled into one of the four key areas or are no longer active. Irrespective, at the time of publishing all initiatives detailed had already delivered some level of effect except where noted, and therefore remain listed in their original working groups.

As can be seen from Table 1 the Quad has delivered many initiatives across a

²¹ "Joint statement from the Quad Foreign Ministers' Meeting in Washington," Minister for Foreign Affairs Australia, July 1, 2025, <https://www.foreignminister.gov.au/minister/penny-wong/media-release/joint-statement-quad-foreign-ministers-meeting-washington>.

range of areas since the first Leaders' Summit. While it could be argued that all the initiatives clearly contribute to FOIP, only select initiatives contribute specifically to maritime security, and these are further detailed below.

(1) The Indo-Pacific partnership for Maritime Domain Awareness (IPMDA)

IPMDA was launched in 2022 to enhance maritime domain awareness in the region. Under IPMDA, Indo-Pacific partners receive near real-time information on activities occurring within their maritime zones using technology, such as commercial satellite radio frequency data, and leveraging advanced analytic software to enable partners and recipients to better monitor their waters and rapidly detect and respond to challenges involving illicit maritime activities²². IPMDA engages regional information centers to establish a common operating picture, and has been delivered across the Indo-Pacific region including to the Pacific Island Forum Fisheries Agency and the Information Fusion Center in Gurugram, India²³, helping over 24 countries to date in accessing 'dark vessel' data²⁴. Most recently under the initiative, the US approved a Foreign Military Sale (FMS) of Seavision and HawkEye360 software to India²⁵ to further enhance India's maritime surveillance capability and aid in building a common operating picture utilizing shared software and data.

Alongside IPMDA, there are several sub-Quad initiatives that also support the advancement of MDA in the region, inclusive of the Australian Government's Pacific Maritime Security Program (PMSP), and Japan's Official Security Assistance Framework²⁶. Whilst these initiatives mutually benefit the outcome that IPMDA is seeking, it is unclear whether they form part of the Quad commitment, as for the most part they lie at the bilateral or sub-Quad level and are not recognized within Quad documentation. PMSP is an exception to this, whereby elements of the program, such as the Enhanced Aerial Surveillance Program are provisioned under the Quad IPMDA

²² Robert Mizo, "The Quad's Deepening Maritime Cooperation," *Toda Peace Institute*, October 9, 2024, <https://toda.org/global-outlook/2024/the-quads-deepening-maritime-cooperation.html>.

²³ "The Wilmington declaration," Prime Minister of Australia, September 21, 2024, <https://www.pm.gov.au/media/joint-statement-leaders-australia-india-japan-and-united-states>.

²⁴ "International Seminar Summary Paper-January 2025," RIPS-University of Warsaw Faculty of Political Science and International Studies, January, 2025, https://www.rips.or.jp/en/wp-content/uploads/2025/03/Talking-points_HP.pdf.

²⁵ Peter Parson, "Quad's maritime domain awareness initiative strengthens Indo-Pacific security," *Indo-Pacific Defense Forum*, June 19, 2025, <https://ipdefenseforum.com/2025/06/quads-maritime-domain-awareness-initiative-strengthens-indo-pacific-security>.

²⁶ Pratinashree Basu, "Why maritime surveillance in the Indo-Pacific starts with trust before data," *Lowy Institute's The Interpreter*, August 21, 2025, <https://www.lowyinstitute.org/the-interpreter/why-maritime-surveillance-indo-pacific-starts-trust-data>.

initiative to provide satellite surveillance capabilities²⁷.

IPMDA was criticized in its early stages for providing data that some countries already had access to, along with provision of data to some countries that did not have the capacity to capitalize and respond to the data²⁸. The increased layering of data in IPMDA introduced from 2024 is believed to address the first criticism²⁹, whereas the need for increased capacity building is addressed in the following initiative.

(2) Maritime Initiative for Training in the Indo-Pacific (MAITRI)

MAITRI was announced in 2024, with the first workshop scheduled to be held in India in the second half of 2025. MAITRI is designed to assist Quad partner countries to maximize use of the technology available to them through IPMDA and other quad initiatives through a series of capacity building workshops, utilizing simulation based training and collaborative exercises. Whilst the first iteration of MAITRI is yet to be delivered, it aligns with, and is complimentary to the IPMDA initiative³⁰.

(3) Quad-at-Sea Ship Observer Mission

The Quad-at-Sea Ship Observer mission (herein referred to as Observer mission) is the newest initiative to be undertaken, with representatives from the Indian and Japanese Coast Guards, and the Australian Border Force deploying onboard a US Coast Guard vessel for a voyage from Palau to Guam. The aim of the exercise was improved interoperability and to advance maritime safety. It is important to note that whilst the Observer mission was the first initiative of its kind undertaken by the Quad, the US Coast Guard has had a regular presence in the Pacific Islands under Operation Blue Pacific, aiding regional countries in enforcement of maritime laws in their own EEZ³¹.

²⁷ “Pacific Maritime Security Program,” Australian Government Department of Defence, accessed August 22, 2025, <https://www.defence.gov.au/defence-activities/programs-initiatives/pacific-engagement/maritime-capability>.

²⁸ Kate Clayton, “Operationalising the Quad: Maritime security and climate change in the Indo-Pacific,” *United States Studies Centre*, October 23, 2024, <https://www.ussc.edu.au/maritime-security-and-climate-change-in-the-indo-pacific>.

²⁹ RIPS-University of Warsaw Faculty of Political Science and International Studies, “International Seminar Summary Paper-January 2025.”

³⁰ Ulupi Bora, “Quad’s MAITRI Initiative in Advancing India’s Maritime Vision: An Analysis,” *Centre for Joint Warfare Studies*, January 9, 2025, <https://cenjows.in/quads-maitri-initiative-in-advancing-indias-maritime-vision-an-analysis>.

³¹ Ben Felton, “US Coast Guard’s Role in the Blue Pacific on the Rise,” *The Diplomat*, December 28, 2023.

3. FREE AND OPEN INDO-PACIFIC (FOIP)

The importance of FOIP to the Quad cannot be overstated, as it not only forms part of the Vision Statement, but has been mentioned in every release of a Quad Leaders' and Foreign Ministers' Joint Statement³², and prior to Joint Statements was mentioned as an item of discussion in all the Quad Foreign Minister Meetings³³. Noting that the FOIP concept was first coined by former Japanese PM Abe, this paper will use the Japanese Government definition of FOIP, which is:

...“international public goods”, through ensuring the rules-based international order, in a comprehensive, inclusive and transparent manner, attaching importance to ASEAN’s centrality and unity, in order to bring stability and prosperity for every country as well as secure peace and prosperity in the region as a whole³⁴.

Three ‘pillars’ for realization of FOIP are then listed as:

- 1) Promotion and establishment of the rule of law, freedom of navigation, free trade, etc.;*
- 2) Pursuit of economic prosperity; and*
- 3) Commitment for peace and stability³⁵.*

The Japanese Government then defines specifics of each pillar, of which the following are related to maritime security:

Cooperation among those who share fundamental principles and the vision for a free and open Indo-Pacific. Strategic communication at international arena and through media, etc... Capacity-building assistance to countries in the Indo-Pacific region (e.g. strengthening capacity of maritime law enforcement and Maritime Domain Awareness (MDA), and other human resource development). Cooperation in such fields as...anti-piracy, counter-terrorism, and non-

³² Prime Minister of Australia, “Quad Leaders’ Vision Statement – Enduring Partners for the Indo-Pacific.”

³³ Australian Government Department of Foreign Affairs and Trade, “The Quad.”

³⁴ “Free and Open Indo-Pacific Basic Thinking Material,” Ministry of Foreign Affairs of Japan, accessed August 12, 2025, <https://www.mofa.go.jp/files/000430632.pdf>.

³⁵ Ibid.

*proliferation*³⁶.

The Indo-Pacific region of the FOIP concept is taken to be the yellow oval in Figure 1, encompassing the Indian Ocean, Pacific Ocean, and the area between these two oceans (South East Asia).

Figure 1. Indo-Pacific Region³⁷



4. METHODOLOGY

(1) Selection of maritime security threats

Similar to FOIP, maritime security is also a vague term with no definitive meaning³⁸. In Till's seminal book on sea power, a chapter is dedicated to maritime security which is loosely defined as maintenance of good order at sea³⁹. In the chapter Till separates the sea into four attributes (resource, transportation, sovereignty and environment) and then defines threats to good order in these categories⁴⁰. Till then argues that protecting against or preventing these threats can be considered to be applying maritime security. Till lists ten threats in total, and the majority of these treats are similar or identical in nature to those shown in Beuger's Maritime security matrix⁴¹. As such these threats are taken as the starting point for determining case studies, and then narrowed to select three threats where there was sufficient open-source data available over a period pre and post Quad reinvigoration with which to analyze changes or trends.

³⁶ Ibid.

³⁷ Ibid.

³⁸ Christian Bueger, "What is maritime security?" *Marine Policy*, No. 53, 2015, p. 163, <https://www.sciencedirect.com/science/article/pii/S0308597X14003327>.

³⁹ Till, *Seapower: A Guide for the Twenty-First Century* 3rd ed. pp. 282-283.

⁴⁰ Ibid., pp. 283-284.

⁴¹ Beuger, "What is maritime security?" p. 161.

The first threat chosen was inter-state conflicts, primarily focused on maritime border disputes within the South China Sea. These conflicts threaten sovereignty, and typically demonstrate a violation or flagrant disregard for the rule of law, and often also impact on freedom of navigation within and surrounding the disputed area. The South China Sea is a well-documented global hot spot for maritime disputes with several available data sources available comparative to other regions. Furthermore, some literature argues that the maritime security situation in the South China Sea has improved considerably since 2016 because of efforts between China, the Philippines and the Association of South East Asian Nations (ASEAN), but then asserts that the Quad complicates maritime security in the Western Pacific⁴². Therefore a focus on the South China Sea allows the author to test this assertion.

The second threat chosen was piracy and armed robbery, as this is a key threat to transportation and trade, impacting not just freedom of navigation but also economic prosperity and regional stability. Piracy and armed robbery incidents have been reported to the International Maritime Organization (IMO) for decades, resulting in a rich database which covers all areas of the Indo-Pacific with which to undertake further studies.

Lastly, IUU fishing was chosen as it is a considerable threat to both the sea as a resource, and the sea as an environment, and can impact the economic prosperity of the region. Datasets for IUU fishing were far more limited than the two threats mentioned above, however were considered sufficient to address a period pre and post Quad renewal.

(2) Defining Effectiveness

Following selection of the maritime security threats to be examined, it is necessary to establish a baseline definition of effectiveness for each case. If we were to make an assessment using only the specifics of each pillar of FOIP as defined by the Japanese Government, it would be relatively straight forward to assess that, at least in terms of cooperation, the Quad has been highly effective based on the number of cooperation initiatives it has established. However, the Author posits that this is a short-sighted view, and therefore provides a framework at Table 2 which defines separate and specific quantitative measures of effectiveness against the selected maritime security threats.

⁴² Zongyou, "The evolution of the 'Quad'," pp. 94-95.

In addition to the measures of effectiveness that specifically relate to maritime security, a fourth measure of effectiveness that relates to legitimacy and credibility is proposed. Regional perceptions of legitimacy speak to the Quad's ability to cooperate not just amongst each other, but with all Indo-Pacific countries, which is critical to expanding initiatives throughout the region. Similarly, deterring aggression and maritime security incidents in the region promotes peace and stability, but

...the effectiveness of deterrence depends on the credibility of the Quad's commitment...⁴³.

Thus a fourth case study is included which attempts to measure the Quad's legitimacy and credibility, also included in Table 2. In order for the Quad to be deemed effective in this case study, there should be an increasing acceptance of the Quad by ASEAN nations, as measured through annual ASEAN surveys. While ideally PIF and IORA perceptions would also be included in this case study, there is insufficient survey data or reporting to support this, therefore perceptions of legitimacy are limited to ASEAN only.

Table 2. Measures of effectiveness for each case study

Case Study title	Maritime security threat	Measure of positive effective
International Maritime Disputes – South China Sea	Inter-state conflicts	Reduction in coercive or violent maritime disputes/incidents in South China Sea from pre-2018 figures (arising from international law disagreements of violations)
Piracy and Armed Robbery	Piracy and Armed Robbery	Reduction in number of maritime security incidents related to Piracy and Armed Robbery as reported to the International Marine Organization from pre-2018 figures (as a total across the entire Indo-Pacific region)
Illegal, Unreported and Unregulated (IUU) Fishing	IUU fishing	Reduction in IUU fishing by value and volume; and/or improvement in the IUU fishing risk index score since related Quad initiatives were launched
Credibility and Legitimacy – ASEAN acceptance		Increased acceptance of the Quad by ASEAN nations since reinvigoration, measured by positive survey response

(3) Limitations

There are several limitations in this methodology, the first of which is the

⁴³ Kulsoom et al, "The Quad and East Asian security: Evaluating its role in countering China's influence," p.46.

geographical extent of analysis. Case studies do not cover the full expanse of the Indo-Pacific region, but rather the regions were defined by the availability of data.

A second limitation was the time frame for analysis. Ideally, all case studies would have an identical time frame for analysis from 2014 to 2024, which provides several years pre and post quad renewal to not only analyze trending changes, but also to identify and account for any anomalies that may only occur briefly in the period. This time frame was analyzed for the first two case studies, however insufficient data sets limited the time frame of study for the IUU Fishing and Credibility and Legitimacy case studies.

Finally, while the Quad reformed in 2017, the key Quad initiatives related to maritime security are much newer, and therefore are unlikely to have been in place long enough to witness a relative effect in the region's security that may be attributed to them.

These limitations will be further clarified as required in the next section which explores each case study in detail.

5. CASE STUDIES

(1) International Maritime Disputes – South China Sea

This case study has collated data taken from the China Power Project⁴⁴, The Council on Foreign Relations⁴⁵, and Crisis Watch⁴⁶, to analyze the number of major international law enforcement incidents in the South China Sea from 2014 to 2024 as shown in Table 3. An incident is considered to be a violation of international law, involving coercive or risky behavior, by one or more nations specifically related to international maritime and air border disputes. An incident is only reported in the table if it involved interaction between two nations, but does not include one-sided activity which may be considered a violation of international law but did not prompt any reaction beyond diplomatic protest. For example, where Naval vessels were sighted loitering in another nation's territorial seas, or military installations were established on a contested island with no physical response or altercation beyond diplomatic protests these incidents are not included.

⁴⁴ "China Power South China Sea Incident Tracker," Center for Strategic & International Studies (CSIS), accessed July 30, 2025, <https://chinapower.csis.org/maritime-forces-destabilizing-asia>.

⁴⁵ "China's Maritime Disputes 1985-2024," Council on Foreign Relations (CFR), accessed July 30, 2025, <https://www.cfr.org/timeline/chinas-maritime-disputes>.

⁴⁶ "CrisisWatch," International Crisis Group (ICG), accessed August 23, 2025, <https://www.crisisgroup.org/crisiswatch>.

Alongside the number of incidents reported, the number of Freedom of Navigation (FON) operations conducted by either the US or other nations in the South China Sea is displayed, with data collated from the US Government⁴⁷, US DoD⁴⁸, and Crisis Watch⁴⁹, except where otherwise noted. One limitation to this data is that many nations undertake FON operations in the South China Sea but do not report on them⁵⁰, therefore Table 3 may not incorporate all operations. Additionally, FON operations very specifically refer to patrols that are intended to assert FON under United Nations Convention on the Law of the Sea (UNCLOS) (for example, sailing through a ‘claimed’ territorial sea that the patrolling nation asserts is not a legitimate claim under UNCLOS). Therefore, data in Table 3 is not indicative of the number of naval deployments in the South China Sea, as it does not include deployments that were labelled as routine operations, exercises, or transit, unless FON was explicitly mentioned in the reporting. This distinction is important as the number of naval vessels from a large number of countries increasingly operating in the South China Sea far outweighs the figures displayed in Table 3.

Finally, in addition to the figures shown, reporting in September 2017 that the US planned to increase FON operations to two to three times per month in the South China Sea indicates that US FON activities are likely much higher than what has been officially reported and available at Table 3⁵¹.

The US Department of Defense has also claimed a further 180 instances of China’s People’s Liberation Army coercive and risky operational behavior against US assets, and 100 instances against allied nations in the Indo-Pacific region between 2021 and 2023⁵², however due to the lack of detail surrounding these incidents they are not included in Table 3. What is particularly noteworthy from the data not included is the assertion by US DoD that the same number of incidents occurred in the 10 years prior to 2021, showing a fivefold increase in instances from 2021⁵³.

At first glance, the argument that the maritime security situation in the South

⁴⁷ “U.S.-China Strategic Competition in South and East China Seas: Background and Issues for Congress,” Congressional Research Service, February 5, 2024, <https://sgp.fas.org/crs/row/R42784.pdf>.

⁴⁸ “Department of Defense releases declassified images, videos of coercive and risky PLA operational behavior,” US Department of Defense, October 17, 2023, <https://www.defense.gov/News/Releases/Release/Article/3559903>.

⁴⁹ ICG, “CrisisWatch.”

⁵⁰ “Countries that challenge China’s illegal claims,” Australian Strategic Policy Institute, accessed August 23, 2025, <https://www.pressurepoints.aspi.org.au/chinas-air-and-maritime-coercion/countries-that-challenge-chinas-illegal-claims>.

⁵¹ ICG, “CrisisWatch.”

⁵² “Military and Security developments involving the People’s Republic of China 2023,” US Department of Defense, 2023, <https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-military-and-security-developments-involving-the-peoples-republic-of-china.pdf>.

⁵³ Ibid.

China Sea has improved considerably since 2016⁵⁴ appears valid, as there was a significant decrease in incidents post-2016. However the number of incidents increased from 2023, and exceeded the 2016 figures by 2024, therefore the author disagrees with this argument.

Table 3. Major international maritime law enforcement incidents and FON operations by year⁵⁵

Year	Incident between claimants	Incident between China and non-claimant	US FON	FON by other nations
2024	21	1 ⁵⁶	2	2 ⁵⁷
2023	16	12 ⁵⁸	5	
2022	3	12 ⁵⁹	5	
2021	7		5	2 ⁶⁰
2020	6	1	10	2
2019	9		8	2
2018	3		6	5 ⁶¹
2017	8	1	6	
2016	18	3	3	
2015	18	2	2	1
2014	10	1	3	

With regard to the decrease in incidents post-2016, there are likely a number of factors that influenced this. As a starting point, the Permanent Court of Arbitration handed down a unanimous ruling in July 2016 that found that that China’s nine-dash line held no legal basis under UNCLOS⁶². Although China has repeatedly failed to recognize this ruling, it did result in increased focus and pressure on China from the international community, including a renewed focus between ASEAN and China to formalize a South China Sea Code of Conduct, which the author argues aided in moving disputes away from the ocean and into the negotiating room. To date no CoC has been agreed upon, and with the continued militarization of the South China Sea

⁵⁴ Zongyou, “The evolution of the ‘Quad’,” pp. 94-95

⁵⁵ All data collated from following sources except where otherwise noted: CSIS, “China Power South China Sea Incident Tracker.”; CFR, “China’s Maritime Disputes 1985-2024.”; and ICG, “CrisisWatch.”

⁵⁶ Aljazeera, “Australia, New Zealand monitor ‘unusual’ movement of three Chinese warships,” February 20, 2025,

⁵⁷ Colin Clark, “Australia, Canada, the Philippines, and US mount South China Sea FONOP,” August 7, 2024, <https://breakingdefense.com/2024/08/australia-canada-the-philippines-and-us-mount-south-china-sea-fonop>.

⁵⁸ Andrew Greene, “HMAS Toowoomba naval divers forced to exit water over Chinese warship sonar pulses,” *ABC News*, November 18, 2023; and “Unprofessional Intercept of U.S. B-52 over South China Sea,” US Indo-Pacific Command, October 26, 2023, <https://www.pacom.mil/Media/News/Spotlight/Article/3569987>.

⁵⁹ Peter Layton, “A flare up in China’s deliberate pattern of aggression,” *The Lowy Institute’s The Interpreter*, June 6, 2022, <https://www.loyyinstitute.org/the-interpreter/flare-china-s-deliberate-pattern-aggression>; Reuters, “Canada says Chinese warplanes harassed its patrol aircraft,” *NBC News*, June 3, 2022; and Brad Lendon, “Australia demands answers from China over alleged laser incident at sea,” *CNN World*, February 21, 2022.

⁶⁰ Keagan Ingersoll, “UK-France Joint Action Key to European Relevance in the Indo-Pacific,” *Geopolitical Monitor*, May 12, 2021, <https://www.geopoliticalmonitor.com/deepening-french-uk-cooperation-in-the-indo-pacific>.

⁶¹ Carl Thayer, “Australia and South China Sea FONOPs,” interview by Australian Naval Institute, February 10, 2022, <https://navalinstitute.com.au/australia-and-south-china-sea-fonops>.

⁶² “The South China Sea Arbitration (The Republic of Philippines v. The People’s Republic of China),” Permanent Court of Arbitration, July 12, 2016, <https://pca-cpa.org/cn/cases/7>.

in China's favor, Pedroza makes a compelling argument that a CoC may no longer be in the interests of the Indo-Pacific region⁶³.

Another factor in the decrease of incidents from 2017 may be the increase of US and other nation FON operations in the region, as it is reasonable to expect that an increased Naval presence may be a deterrent to illegal practices. While increased FON operations are not a Quad initiative, and senior officials have been very careful to point out that the Quad is not a military alliance⁶⁴ the two are inextricably linked as the US Indo-Pacific Strategy released in 2019⁶⁵, and again in 2021⁶⁶ defines a vision which is very much aligned to the Quad vision, and which includes cooperation in freedom of navigation to achieve this vision.

What may be the largest factor in the decrease of incidents (and then subsequent increase in incidents), is actually the leadership of the Philippines. In 2016 former Philippine President Rodrigo Duterte assumed office, and immediately set about on a policy of appeasement with China, seeking to bilaterally negotiate the South China Sea issues with China, at a time when he could have instead used the arbitration ruling to take a harder stance⁶⁷. In 2022 Duterte was replaced by Bongbong Marcos as Philippines President, who has supported the arbitration ruling and refused to appease China, pivoting national security interests towards the protection of maritime sovereignty and steadfastly undoing some of the work of Duterte⁶⁸. Coinciding with this shift in presidency, the number of incidents took a sudden jump in 2023, which has continued in 2024 with the large majority of these incidents occurring between China and the Philippines.

What is abundantly clear is that the specific Quad initiatives related to maritime security have not reduced the number of inter-state conflict incidents in the South China Sea, as the number of incidents annually now exceed the number of incidents pre-Quad renewal. As such, it is concluded that the Quad has not been effective at generating a tangible reduction in international maritime incidents, and thus

⁶³ Raul Pedroza, "Is a South China Sea Code of Conduct Viable?" *Stockton Center for International Law Studies*, No. 97, 2021, pp. 937-955.

⁶⁴ Nikki Carvajal, "Biden officials stress Quad is an 'unofficial gathering', 'not a military alliance,' ahead of first in-person meeting," *CNN*, September 24, 2021.

⁶⁵ US Department of State, "A Free and Open Indo-Pacific: Advancing a Shared Vision," November 4, 2019, <https://www.state.gov/wp-content/uploads/2019/11/Free-and-Open-Indo-Pacific-4Nov2019.pdf>

⁶⁶ The White House, "Indo-Pacific Strategy of the United States," February 2022 <https://bidenwhitehouse.archives.gov/wp-content/uploads/2022/02/U.S.-Indo-Pacific-Strategy.pdf>.

⁶⁷ Renato Cruz De Castro, "From Balancing to Appeasement: President Duterte's Untangling of the Aquino Administration's Geo-Political Agenda in the South China Sea," *National Institute for Defense Studies*, July 19, 2017, <https://www.nids.mod.go.jp/english/event/symposium/pdf/2017/e-03.pdf>.

⁶⁸ Patrick M. Cronin, "Sea Change: 'Bongbong' Marcos and the Future of the South China Sea," *The Diplomat*, August 25, 2023.

advancing FOIP in this area.

(2) Piracy and Armed Robbery

As detailed by Till, intra-state and non-state incidents such as piracy and illegal fishing activities contribute to maritime security degradation⁶⁹. and due to the high availability of piracy and armed robbery data by region and time, this is the second case study. Table 4 displays all incidents of piracy and armed robbery by region and year from 2014 to 2024 as reported to the International Maritime Organization. All reported incidents are included, regardless of the criminal success or otherwise.

Table 4. Reported incidents of piracy and armed robbery by region and year⁷⁰

Year	South China Sea	Malacca Strait	North Pacific Ocean	Yellow Sea	Indian Ocean	Total
2024	10	91	0	0	19	120
2023	14	85	0	0	5	104
2022	4	72	0	0	4	80
2021	15	70	0	0	5	90
2020	37	48	1	0	12	98
2019	34	48	0	3	10	92
2018	60	8	4	2	23	97
2017	62	26	0	2	18	108
2016	68	21	0	7	10	106
2015	83	135	2	4	18	242
2014	92	82	0	0	44	218

Table 4 figures, while not identical due to the way in which each organization collates data and specifies regions, align well with the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP)⁷¹ with respect to the annual trends. The reasons for the marked decrease in incidents after 2015 will not be investigated as this was prior to Quad rei-invigoration, however what is evident is that the number of incidents largely plateaued between 2018 and 2022 but have been increasing year on year since this time. More concerning is at the time of writing there were already 112 incidents reported for 2025 to date in the ReCAAP area of reporting, which exceeds the 2024 ReCAAP reported incidents of 107 with over one third of the reporting period remaining⁷². This increase in incidents has occurred after the introduction of the IPMDA initiative which indicates this

⁶⁹ Till, *Seapower: A Guide for the Twenty-First Century* 3rd ed. p. 284.

⁷⁰ "Global Integrated Shipping Information System Piracy and Armed Robbery Reports," International Maritime Organisation, accessed July 30, 2025, <https://gis.imo.org/Public/PAR>.

⁷¹ "Annual Report 2024: Piracy and Armed Robbery Against Ships in Asia," ReCAAP, accessed August 25, 2025, <https://www.recaap.org/reports>; and "Annual Report 2023: Piracy and Armed Robbery Against Ships in Asia," ReCAAP, accessed August 25, 2025, <https://www.recaap.org/reports>.

⁷² As of August 25, 2025, ReCAAP homepage reported there had been 112 incidents in 2025 and 107 incidents in 2024.

initiative has had little to no impact on the maritime security of the region related to piracy and armed robbery incidents. As such, the Quad is yet to prove effective on improving maritime security through reduced piracy and armed robbery incidents to advance FOIP.

(3) Illegal, Unreported and Unregulated Fishing

Illegal, Unreported and Unregulated (IUU) fishing can have profound impacts on coastal states, particularly where that state is reliant on fisheries industries for both food security and economic prosperity. Thus, quantifying the impact of IUU fishing does not just speak to the level of maritime security in the region, but can also provide narrative on the economic situation of the region where fisheries is a major trade. Unfortunately, by the very nature of IUU fishing, it is incredibly difficult to quantify particularly in regards to illegal catch by measurement. ‘The Illegal, Unreported and Unregulated Fishing Risk Index’, first published in 2019 and updated in 2021 and 2023, has created a novel way to quantify the issue, by providing a

...standardized measure of the degree to which states are vulnerable to and effectively combat IUU fishing, thus providing a measure of the risk that IUU fishing may be occurring⁷³.

This index assigns weighted values to forty different indicators split into three main types (vulnerability, prevalence and response) and spread across four different areas of responsibility (coastal, flag, port and ‘general’ which encompasses remaining indicators not covered by the first three areas). The results are aggregated for every coastal state, with averages provided for both regions and ocean basins. For the purpose of this analysis, the results are shown for the Asia and Oceania Region, and also for the Western Pacific, Eastern Pacific, East Indian Ocean and West Indian Ocean basins, all of which are included in the Indo-Pacific region. Table 5 displays aggregated scores across all types of responsibility, whereas Table 6 specifically shows scores for coastal responsibilities which are indicators more specific to management of respective exclusive economic zone (EEZ), which is considered a more appropriate indicator of regional ability to manage maritime security. In all cases, the index goes

⁷³ G. Macfadyen and G. Hosch, “The IUU Fishing Risk Index: 2023 Update,” *Poseidon Aquatic Resource Management Limited and the Global Initiative Against Transnational Organized Crime*, December 2023, p. 2, <https://iuufishingindex.net/downloads/IUU-Report-2023.pdf>.

from 1 to 5, where 1 is good/strong and 5 is bad/weak.

Regionally, there has been a slight improvement in Asia for aggregated scores whereas the Oceania region has remained largely steady. Evaluating by Ocean basin shows that the East Indian Ocean and Western Pacific (which is the central area of the Indo-Pacific region and the primary focus of the Quad) have seen slight improvements, whereas the east and west extremities of the Indo-Pacific have worsened slightly.

Table 5. IUU Fishing scores combined across all types of state responsibility by region and ocean basin

Year	Asia Region	Oceania Region	Western Pacific	Eastern Pacific	East Indian Ocean	West Indian Ocean
2023 ⁷⁴	2.51	2.17	2.39	2.32	2.34	2.39
2021 ⁷⁵	2.51	2.07	2.37	2.27	2.24	2.34
2019 ⁷⁶	2.69	2.16	2.48	2.22	2.46	2.36

Table 6. Coastal state responsibility IUU Fishing scores by region and ocean basin

Year	Asia Region	Oceania Region	Western Pacific	Eastern Pacific	East Indian Ocean	West Indian Ocean
2023 ⁷⁷	2.50	2.68	2.62	2.41	2.41	2.73
2021 ⁷⁸	2.50	2.68	2.63	2.38	2.39	2.67
2019 ⁷⁹	2.94	2.82	2.89	2.31	2.70	2.63

Focusing on the area of coastal state responsibility, a similar but more exacerbated trend is evident across the regions and ocean basins, suggesting that the vulnerability to IUU fishing or prevalence of IUU fishing has decreased, and/or actions aimed at reducing IUU fishing have increased in the Indo-Pacific region since 2019.

A narrower analysis of IUU Fishing was conducted by MRAG Asia Pacific, limited to Pacific Tuna fisheries of the Pacific Islands region, with an original report released in 2016, and further updated in 2020. While this is only a small subset of the entire Indo-Pacific region (and fish type), the data provides insight into the situation pre- and post-Quad reinvigoration, as the 2016 report covers years 2010-2015, and the 2020 update covers years 2017-2019 respectively. There is a significant reduction in estimates from the 2016 to 2020 report, however the report does note the

⁷⁴ Ibid., pp. 35-37.

⁷⁵ G. Macfadyen and G. Hosch, "The IUU Fishing Index 2021," *Poseidon Aquatic Resource Management Limited and the Global Initiative Against Transnational Organized Crime*, December 2021, <https://iuufishingindex.net/downloads/IUU-Report-2021.pdf>, pp. 35-37.

⁷⁶ Macfadyen et al, "The IUU Fishing Index 2019," *Poseidon Aquatic Resource Management Limited and the Global Initiative Against Transnational Organized Crime*, January 2019, <https://iuufishingindex.net/downloads/IUU-Report-2019.pdf>, pp. 31-33.

⁷⁷ Macfadyen, "The IUU Fishing Risk Index: 2023 Update," pp. 51-53.

⁷⁸ Macfadyen, "The IUU Fishing Index 2021," pp. 51-53.

⁷⁹ Macfadyen, "The IUU Fishing Index 2019," pp. 47-49.

...2016 estimates were a ‘first cut’ with highly uncertain data across a number of key risk areas... estimates were kept deliberately broad to account for high levels of uncertainty⁸⁰.

So, while the 2020 results appear to show a reduction in IUU fishing activity in the Pacific Islands region, in context it may not be as significant as the figures allude to in Table 7.

Table 7. Best estimates of product either harvested or transshipped involving IUU activity in Pacific Tuna fisheries

Year Range	Annual Volume (tonnes)	Annual Value (in millions)
2017-2019⁸¹	192,186	\$333.49
2010-2016⁸²	306,440	\$616.11

Unfortunately, with both the MRAG data and IUU Fishing Index, there have been no updates since 2020 and 2023 respectively. While there has been an overall downward trend in IUU Fishing activity or risk from the initial data sets, the MRAG data predates the Quad initiatives detailed in this paper, and the Risk indicator data showed a plateau from 2021 to 2023, indicating there was no tangible impact following the IPMDA initiative announcement in 2022. Improvements in this area are therefore more likely to have resulted from sub-Quad or bilateral initiatives such as Operation Blue Pacific or PMSP, and it is therefore concluded that the Quad has not demonstrated effectiveness in maritime security when considering IUU Fishing. The author does however acknowledge the severe limitations in this case study due to a lack of recent data sets, and recommends that this area be reanalyzed following the release of the 2025 Update of the IUU Fishing Risk Index⁸³.

(4) Credibility and Legitimacy – ASEAN acceptance

It has been argued that the impact of the Quad to date in Southeast Asia has

⁸⁰ Souter et al, “The Quantification of Illegal, Unreported and Unregulated (IUU) Fishing in the Pacific Islands Region – a 2020 Update,” *MRAG Asia Pacific*, October 2021, p. ix, <https://mragasiapacific.com.au/wp-content/uploads/2021/12/ZN2869-FFA-IUU-2020-Update-final.pdf>.

⁸¹ Ibid., p. vi.

⁸² Souter et al, “Towards the Quantification of Illegal, Unreported and Unregulated (IUU) Fishing in the Pacific Islands Region,” *MRAG Asia Pacific*, February 2016, https://imcsnet.org/sites/default/files/media_files/FFA-Quantifying-IUU-Report-Final.pdf, p. i.

⁸³ Poseidon Aquatic Resource Management, “Fisheries Governance,” accessed August 25, 2025, <https://consult-poseidon.com/asp/publicproject.asp?topic=3&valueid=2368>.

been minimal⁸⁴, and that some ASEAN members view the Quad as a threat to the ASEAN architecture and influence in the region⁸⁵. There have been similar concerns that the Quad will have a destabilizing rather than stabilizing impact on the Pacific Island region⁸⁶. For the Quad to prove successful in achieving its ambitions in the Indo-Pacific region, it needs the support and co-operation of nations in the region, either individually or collectively from groupings such as ASEAN, the Pacific Islands Forum (PIF) and the Indian Ocean Rim Association (IORA). Additional to this is the Quad desire to align with, and not undermine, the centrality of ASEAN, as detailed in most Quad Joint Statements⁸⁷. Thus one measure of Quad effectiveness is to analyze the perceptions and acceptance of the Quad by these regional groupings, as this can be used as an indicator of legitimacy⁸⁸ and thus effectiveness. Unfortunately, the level of open-source data and temperature taking on PIF or IORA perceptions of the Quad is too limited to undertake a viable analysis, and therefore this case study is limited to ASEAN perceptions.

The first such survey of these perceptions since the Quad revival was conducted by the Australian Strategic Policy Institute (ASPI) in 2018, which found that views among ASEAN nations was diverse, but that:

...a majority opinion (57%)... supports the Quad initiative as having a useful role in regional security... a plurality (46%)... think that the Quad complements existing ASEAN-centered regional security frameworks... (and) an overwhelming positive response of 69%, was that the Quad is expected to enforce the rules-based order⁸⁹.

⁸⁴ Dossani, "After 18 Years, Has the Quad Failed?"

⁸⁵ See for example: Zongyou, "The evolution of the 'Quad'; Dossani, "After 18 Years, Has the Quad Failed?"; Lucio Blanco Pitlo, "Asean should be open but wary about Quad," *Institute of Strategic & International Studies (ISIS) Malaysia*, January 11, 2024, <https://www.isis.org.my/wp-content/uploads/2024/01/IF19-02-min.pdf>; Evan A. Laksmana, "Whose Centrality?: ASEAN and the Quad in the Indo-Pacific," *Journal of Indo-Pacific Affairs*, Vol. 3, No. 5, 2020, pp.106-117; and Huong Le Thu, "Southeast Asian perceptions of the Quadrilateral Security Dialogue: Survey findings," *ASPI*, October 23, 2018, <https://www.aspi.org.au/report/southeast-asian-perceptions-quadrilateral-security-dialogue/>.

⁸⁶ Meg Taylor, "Pacific-led regionalism undermined," *Asia Society Policy Institute Issue Paper*, September 25, 2023, <https://asiasociety.org/policy-institute/pacific-led-regionalism-undermined>; and Tomohiko Satake, "Australia in an Era of Great Power Competition," in *The Shifting Dynamics of Great Power Competition*, ed. Masayuki Masuda, National Institute for Defense Studies, 2023.

⁸⁷ Australian Government Department of Foreign Affairs and Trade, "The Quad."

⁸⁸ For a detailed explanation and more literature regarding acceptance as a means of legitimacy, see: Ben Cross, "Realist legitimacy: What kind of internalism?" *Philosophy and Social Criticism*, Vol. 51, No. 6, 2025, pp. 990-1008; Megan Dee, "Minilateralism and effective multilateralism in the global nuclear order," *Contemporary Security Policy*, Vol. 45, No. 3, 2024, pp. 494-524; Emmanuelle Blanc, "Recognition through dialogue: How transatlantic relations anchor the EU's identity," *The British Journal of Politics and International Relations*, Vol. 25, No. 1, 2023, pp. 102-120; and Shane P. Mulligan, "The Uses of Legitimacy in International Relations," *Journal of International Studies*, Vol. 34, No. 2, 2005, pp. 349-375.

⁸⁹ Le Thu, "Southeast Asian perceptions of the Quadrilateral Security Dialogue: Survey findings," p. 4

More recently, the ASEAN Studies Centre at the ISEAS-Yusof Ishak Institute has published annual State of Southeast Asia survey reports that feature questions on Quad perceptions since 2020, with the exception of the 2021 report. While the questions are not identical across years, a review of the surveys allows for an analysis of trending perceptions over time. In 2020:

...the majority of respondents (54.2%) view the Quad as having either “negative”, “very negative” or “no impact”... (but) 61.6% of the respondents think that their respective countries should participate in the security initiatives and military exercises under the Quad⁹⁰.

In 2022:

...58.5% of the respondents welcome the strengthening of the Quad⁹¹.

The 2023 survey found that 68.8% of respondents felt:

...that cooperation with the Quad will be complementary to ASEAN efforts (or) beneficial for the region... (and) 50.4% of regional respondents agree or strongly agree that strengthening of the mini-lateral group (Quad) will be constructive for the region⁹².

The promising trend for Quad continued to grow in 2024, and stabilized in the most recent 2025 report with 73.1% and 72.8% respectively of respondents viewing the Quad:

...as being complementary to ASEAN's efforts... (or) that cooperation with the Quad is likely to bring benefits⁹³.

⁹⁰ Tang Sew Mun et al, “The State of Southeast Asia 2020,” *ISEAS-Yusof Ishak Institute*, 2020, p. 34, https://www.iseas.edu.sg/wp-content/uploads/pdfs/TheStateofSEASurveyReport_2020.pdf.

⁹¹ Sharon Seah et al., “The State of Southeast Asia 2022,” *ISEAS-Yusof Ishak Institute*, 2022, p. 3, https://www.iseas.edu.sg/wp-content/uploads/2022/02/The-State-of-SEA-2022_FA_Digital_FINAL.pdf.

⁹² Sharon Seah et al., “The State of Southeast Asia 2023 Survey Report,” *ISEAS-Yusof Ishak Institute*, 2023, p. 33, <https://www.iseas.edu.sg/wp-content/uploads/2025/07/The-State-of-SEA-2023-Final-Digital-V4-09-Feb-2023.pdf>.

⁹³ Sharon Seah et al., “The State of Southeast Asia 2024 Survey Report,” *ISEAS-Yusof Ishak Institute*, 2024, p. 44, <https://www.iseas.edu.sg/wp-content/uploads/2024/03/The-State-of-SEA-2024.pdf>; and Sharon Seah et al., “The State of Southeast Asia 2025 Survey Report,” *ISEAS-Yusof Ishak Institute*, 2025, p. 41, <https://www.iseas.edu.sg/wp-content/uploads/2025/03/The-State-of-SEA-2025-1.pdf>.

As can be seen from these survey results, whilst the Quad has not managed to garner 100% confidence from ASEAN nations in its ability to deliver beneficial results to the Indo-Pacific region, there has been a slowly increasing acceptance over time that the Quad complements the efforts of ASEAN. This majority acceptance by ASEAN signals that not only is the Quad meeting one of its fundamental tenets, which is not to undermine ASEAN centrality, but it also carries legitimacy in the region.

Additional to this is the perception of the Quad as a credible deterrent in the Indo-Pacific. While the Quad is careful in dialogue not to specifically name China as a target of its actions, it is widely construed as being a grouping to deter and contain China⁹⁴. The most recent Quad Foreign Ministers Joint Statement also had a full paragraph that expressed concerns over actions occurring in the East China Sea and South China Sea, which is a thinly-veiled attempt at targeting China without actually calling it out by name, particularly noting the reference to the 2016 Arbitral Tribunal award⁹⁵. If the containment of China is the target of the Quad, albeit unspoken, then does China perceive the Quad as a credible deterrent? According to former Australian PM Rudd, the Chinese view has shifted over time since the Quad renewal, from the impression of a *“headline-grabbing idea...like the sea foam in the Pacific or Indian Ocean: they get some attention but will soon dissipate”* in 2017, to being *‘one of the most consequential challenges to Chinese ambitions in the years ahead’* by 2021⁹⁶. The Chinese viewpoint is reinforced in a paper specifically related to IPMDA, stating that:

*China perceives the IMPDA initiative as a threat posed by the Quad... and has protested and obstructed it at the diplomatic level*⁹⁷.

Taken on face value, China’s changing reaction to the Quad, and attempts to undermine the Quad through its own rhetoric and actions demonstrate that China

⁹⁴ Tahir and Amin, “Assessing the Effectiveness of Quad in Maritime Containment of China in the Indo-Pacific Region,”; Chunying Ba, “The Revival of the Quadrilateral Security Dialogue: Causes and Characteristics,” *Journal of Research in Social Science and Humanities*, Vol. 2, No. 3, 2023, pp. 16-23; Silvia Menegazzi, “China 2020: A Foreign Policy characterized by growing resilience, fading responsibility and increasing uncertainty,” in *Asia in 2020: Coping with COVID-19 and other crises*, ed. Michelguglielmo Torri et al., Asia Maior, 2020, pp. 45-70; and Kliem, “Why Quasi-Alliances will persist in the Indo-Pacific? The Fall and Rise of the Quad,” pp. 271-304.

⁹⁵ Minister for Foreign Affairs Australia, Joint statement from the Quad Foreign Ministers’ Meeting in Washington.”

⁹⁶ Kevin Rudd, “Why the Quad Alarms China”, *Asia Society Magazine*, December 9, 2021, <https://asiasociety.org/magazine/article/why-quad-alarms-china>.

⁹⁷ Xidi Chen et al., “The implications of the Indo-Pacific Partnership for Maritime Domain Awareness (IPMDA) in the South China Sea: A Chinese perspective,” *Marine Policy*, No. 167, 2024, p. 1.

perceives the Quad as a credible enough challenge as to not ignore it.

CONCLUSION

There are many subjective ways that a person may define measures of success or effectiveness when undertaking an analysis of the Quad. For example, if continued meetings at the highest levels were used as a measure of success, it would be easy to surmise that comparative to the first iteration of the Quad, the second iteration has already proved much more successful. This paper has attempted to quantify the Quad's effectiveness in the field of maritime security in achieving the stated vision of advancing FOIP. After a brief history of the Quad reformation and a dissection of the Quad initiatives that specifically relate to maritime security, a definition of effectiveness was proposed that used a quantitative analysis framework. This definition was then applied against four case studies, three of which are directly related to maritime security within the region, and a fourth which assessed Quad legitimacy through acceptance more broadly.

The paper concludes that the Quad has not demonstrated effectiveness in improving maritime security in the Indo-Pacific region, and therefore has not advanced a FOIP specifically related to maritime security, but it does conclude that more broadly the Quad has proven itself to be a legitimate and credible actor in the region. In making this conclusion, it is recognized that the case studies did not cover the full expanse of the Indo-Pacific region but rather the regions were defined by the availability of data. It is also acknowledged that the key Quad initiatives related to maritime security are relatively new, and therefore are unlikely to have been in place long enough to witness a relative effect in the region's security that could be attributed to them. It is expected that initiatives will be continuously refined as required, as is the case with the MAITRI initiative being delivered some three years after the announcement of the IPMDA initiative, as a complimentary measure to improve the usage of the IPMDA. These continued refinements over time are also likely to improve the effectiveness of the Quad's maritime security initiatives. With these two points in mind, it is recommended to undertake a reanalysis of the Quad effectiveness several years into the future, after the MAITRI initiative has had the requisite time to properly take effect. Lastly, it should be noted that stand-alone military exercises and initiatives have not been explored within this paper, as the Quad itself makes no

specific mention of such in joint statements or initiative announcements, and the military dimension has been specifically excluded by senior US administration officials⁹⁸. This distinction is important, as much of the literature on the Quad to date has included military exercises such as the joint Australia, India, Japan and US Exercise ‘Malabar’ when assessing effectiveness⁹⁹.

When looking at the Quad maritime security initiatives in isolation, the empirical data points to a lack of effectiveness. However, as was detailed in Table 1, the Quad working groups and initiatives are far wider ranging than just maritime security initiatives. Similarly, while only the maritime security components of the FOIP concept were addressed, the pillars that make up the FOIP concept are far broader and include the promotion of free trade and pursuit of economic prosperity. The author suggests that these pillars, and thus the initiatives associated with them are largely inter-connected, with the positive impact of one initiative likely to have a complimentary flow-on effect in other areas into the future. For example, where the Quad has contributed to infrastructure development, this has the potential to free up a state’s funding that could be allocated to other measures such as maritime enforcement, which in turn may see a downturn in IUU fishing incidents, which in turn could improve that state’s economic prosperity. Similarly, where the Quad has aided a nation in undersea communications or Open RAN infrastructure, this may facilitate more connectivity and an increased ability to receive more information and real-time data available through initiatives such as IPMDA. Therefore, while the size and scope of this paper limited an analysis to only maritime security, the author suggests that a future method of analysis that quantitatively assesses all initiatives across each pillar of FOIP would be beneficial to understand the effectiveness of the Quad in a more holistic sense. In addition to this, there are several other minilateral and bilateral arrangements, such as the Japan Australia US Trilateral Security Dialogue that share the vision of FOIP, and are more focused on military and security related cooperation¹⁰⁰. An analysis that was not limited to the Quad, but took into consideration these other partnerships would provide a meaningful look at where

⁹⁸ “Background Press Call by Senior Administration Officials Previewing the Quad Leaders Summit and Bilateral Meeting with India,” The American Presidency Project, accessed August 19, 2025, <https://www.presidency.ucsb.edu/documents/background-press-call-senior-administration-officials-previewing-the-quad-leaders-summit>.

⁹⁹ For examples see: Abdul Muein Abadi, “Preparing for War: Assessing the US-Quad from Realist Institutionalism Perspective,” *Hasanuddin Journal of Social and Political Sciences*, Vol. 1, No. 1, 2021, pp. 41-52; and Kulsoom “The Quad and East Asian security: Evaluating its role in countering China’s influence.”

¹⁰⁰ Tom Corben et al, “A partnership for the AJUS: Operationalising Australia-Japan-United States defence cooperation,” *United States Studies Centre at the University of Sydney*, April 14, 2025, <https://www.ussc.edu.au/a-partnership-for-the-ajus-operationalising-australia-japan-united-states-defence-cooperation>.

there may be gaps, synergies and duplication in delivery of maritime security effects.

In summary, the author concludes that, at least in the area of maritime security, the Quad has not demonstrated effectiveness to date. However, due to the relative infancy of the Quad initiatives, and the fact that the Quad, in its second 'life', has gained legitimacy as a partnership in the region, it is expected that over the course of time this will improve.