

Fishery Conflicts in the South China Sea: The Future Lies in Cooperation*

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Abstract

The present article aims to study the South China Sea (SCS) dispute through the lens of fishery conflicts. The increasing number of incidents involving local fishing boats and national coast guard vessels raises concerns about the risk of triggering a full-fledged crisis whose consequences could prove difficult to control. Although confrontations are relatively common in communities where the reliance upon fishing as a source of food and employment is vital, not all conflicts result in violence. The originality of this article is that it deals with a current and significant problem. Fishery conflicts will remain a major point of concern in East Asia for years to come. Sadly, the question of fisheries in the SCS is rarely discussed in the literature studying the SCS disputes. Many studies have looked into sovereignty-related

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issues or the lure of seabed energy resources, but very few have focused on fisheries as a threat to regional peace. This article intends to rectify this matter and raise awareness about the importance of fisheries to the region's economy and food security. It contributes to the scholarship on the SCS dispute by highlighting the causes of fishery conflicts and by promoting appropriate ways to reduce them.

Keywords: South China Sea, conflict management, fishery disputes, governance.

I. Introduction

The competition between rival fishing fleets in the South China Sea (SCS) to secure access to valuable marine living resources is not only threatening the livelihoods of millions of people in coastal states who depend on fisheries but is also posing a serious risk of triggering a full-fledged crisis whose consequences could prove difficult to control. Although confrontations over the use and management of fisheries are fairly widespread, the nationalist postures adopted by SCS claimants have led to an upsurge in violence between fishermen and coast guards. This article examines the possibility for the countries bordering the SCS to shelve their differences over sovereignty rights and move towards greater regional cooperation. It suggests that fishery management cooperation could help reduce friction between rival fishing fleets, keep the fishing industries afloat, and promote the sustainable management of fishing resources. The objective is to show how fishery conflicts can be resolved in a win-win situation, encouraging opposing parties to cooperate rather than enter a race to the bottom where everybody loses.

The present article is organized as follows. The first section looks back at the recent maritime incidents in the SCS. The second section presents the biological characteristics and the socioeconomic consideration relating to fisheries in the SCS. The third section introduces a conflict resolution approach as

theoretical support for this article and examines the merits of cooperative efforts in the SCS. Finally, the fourth section addresses the salient features and main achievements of past diplomatic engagements among SCS claimants. The originality of this article is that it deals with a current and significant problem. Fishery conflicts will remain a major point of concern in East Asia for years to come. The question of fisheries in the SCS is rarely discussed in the literature studying the SCS disputes. Many studies are concerned with sovereignty-related issues or the lure of seabed energy resources, but very few have focused on fisheries as a threat to regional peace. This article intends to rectify this deficiency and raise awareness about the importance of fisheries for the region's economy and food security. It contributes to the scholarship on the SCS dispute by highlighting the causes of fishery conflicts and by promoting appropriate ways to reduce them.

II. Fishermen on the Front Lines

Fisheries and fish processing are important drivers of economic development in the SCS. Securing access to sufficient fish stocks is an enduring concern for the region's coastal states, and fishing incidents play a prominent role in the current disputes. China, Taiwan, Vietnam, Thailand, the Philippines, and Indonesia

figure among the leading seafood exporters in the world.¹ This competition between rival fishing fleets operating in a semi-enclosed sea with overlapping maritime claims inevitably results in fishery conflicts. The decision by coastal states to enforce strict laws and regulations in areas that they each consider to be under their sole jurisdiction have given rise to violent incidents involving the excessive use of force and the arrest of fishing crews from other states. Such enforcement actions not only prove to be a source of diplomatic tension, but may also elicit retaliatory measures by other parties, which in turn may cause additional disagreements.

The turbulent apprehension of fishing boats for alleged illegal fishing in the SCS is not new, but the phenomenon of publicly seizing, ramming, or destroying each other's fishing boats has dramatically escalated in recent years. In 2013, the Philippine coast guard opened fire on a Taiwanese fishing boat, killing one fisherman.² In the same year, Vietnam accused an unidentified Chinese vessel of firing upon a Vietnamese fishing

¹ "The State of World Fisheries and Aquaculture 2022. Towards Blue Transformation." FAO, last modified June 29, 2022. https://reliefweb.int/report/world/state-world-fisheries-and-aquaculture-2022-enarruzh?gclid=EAlaIqObChMIz6q9x8CI_wIVtNhMAh3V0AFzEAAYASAAEgKPjvD_BwE.

² "Philippines Admits Sea Shooting," *DW*, May 10, (2013). <https://www.dw.com/en/philippines-admits-shooting-of-taiwanese-fisherman/a-16802541>.

boat near the Paracel Islands, setting its cabin on fire.³ In 2014, the Philippines seized a Chinese fishing boat and its 11 crewmen on charges of catching endangered sea turtles within the country's exclusive economic zone (EEZ).⁴ Further south, Australia set two Vietnamese fishing boats on fire after local fisheries officers found almost 200 giant clams on board.⁵ Indonesia, in particular, has a strong track record of blowing up and sinking illegal fishing boats apprehended in its territorial waters. The country's fisheries ministry lined up and sank 51 confiscated fishing boats on 4th May 2019. Sinking may appear a little dramatic, but not by the standards of Indonesian authorities. The country has organized the destruction of more than 500 illegal fishing boats since 2014, often broadcast live on national television.⁶ The government of President Joko Widodo has decided to take a hardline stance against illicit foreign intrusion, driven by the need for Indonesia to show its neighbors that it is in total control of its vast territory

³ "China Denies Starting Fire on Vietnamese Fishing Boat," *The Guardian*, March 27, (2013).
<https://www.theguardian.com/world/2013/mar/27/china-denies-fire-vietnamese-boat>.

⁴ Zachary Keck. "Philippines Seizes Chinese Fishing Boat in the South China Sea," *The Diplomat*, May 7, (2014).
<https://thediplomat.com/2014/05/philippines-seizes-chinese-fishing-boat-in-south-china-sea>.

⁵ Jesse Dorsett, and Felicity James. "Vietnamese Illegal Fishing Boats Destroyed After Seizure off Top End Coast," *ABC News*, April 4, (2014).
<https://www.abc.net.au/news/2014-04-04/illegal-vietnamese-fishing-boats-destroyed-in-darwin-giant-clams/5367304>.

⁶ "Indonesia Sinks 51 Foreign Boats to Fight Against Poaching," *AP*, May 4, (2019). <https://apnews.com/article/a09d2b989b9243e0a6c5c9f106efa61d>.

of 17,500 islands. Indonesia has scuppered fishing boats from various coastal states including China, Vietnam, and the Philippines, but it is Beijing's criticism that has been the most virulent.⁷

While China doesn't challenge Jakarta's territorial claim over the Natuna Islands, Beijing publicly claims historical fishing rights to the waters off those islands, and the Indonesian coast guard has regularly confronted Chinese fishing boats.⁸ The Natunas themselves are not subject to controversy, but the waters north of them have become a flashpoint between the two countries. Under international law, the Natunas are Indonesian, but they partially overlap with China's nine-dash line claims.⁹ Considering that these waters are ostensibly part of its traditional fishing grounds, Beijing argues that its fishermen have a right to fish there. As tensions mount, Chinese fishing boats increasingly benefit from logistical assistance and protection provided by Chinese coast guard and military vessels, highlighting the

⁷ Radio Free Asia. "China Has Right to Sail Near Indonesia's Natuna Islands, Beijing Says," January 2, (2020).
<https://www.rfa.org/english/news/china/indonesia-natuna-01022020165115.html>.

⁸ Derek Grossman. "Why Is China Pressing Indonesia Again Over Its Maritime Claims?" *RAND Corporation*, January 16, (2020).
<https://www.rand.org/blog/2020/01/why-is-china-pressing-indonesia-again-over-its-maritime.html>.

⁹ Ted L. McDorman. "The Territorial Sovereignty Disputes in the South China Sea," in *Routledge Handbook of the South China Sea*, Keyuan Zou, ed. London: Routledge, (2021): 96. <https://doi.org/10.4324/9780367822217-8>.

strategic role played by fishermen who, by their presence, strengthen China's maritime claims.¹⁰

Even as several countries in the region have struggled to cope with the challenges posed by the COVID-19 pandemic, fishing-related incidents continue to take place unabated. Several cases made international headlines in 2020, such as the sinking of a Vietnamese fishing boat by a Chinese maritime surveillance vessel near the Paracel Islands in April, and the arrest and beating of Vietnamese fishermen by Chinese authorities in June for violating a controversial fishing ban.¹¹ As of September 2020, the Chinese coast guard reported that it had expelled 1,138 foreign fishing boats from the northern half of the South China Sea in the preceding four months, boarded and inspected dozens more, and detained 11 boats and 66 foreign crew members, “*effectively safeguarding [our] fishery interests and maritime rights.*”¹² However, it was the presence of a flotilla of more than 200

¹⁰ Frederic Grare. “Fish and Ships: Chinese Fishing and Europe’s Indo-Pacific Strategy,” *European Council on Foreign Relations*, August 24, (2021). <https://ecfr.eu/publication/fish-and-ships-chinese-fishing-and-europes-indo-pacific-strategy>.

¹¹ Viet Hung Nguyen Cao. “Vietnam’s Struggles in the South China Sea: Challenges and Opportunities,” *Centre for International Maritime Security*, September 21, (2020). <https://cimsec.org/vietnams-struggles-in-the-south-china-sea-challenges-and-opportunities>.

¹² Shashank Bengali, Shashank, and Vo Kieu Bao Uyen. “Sunken Boats. Stolen Gear. Fishermen Are Prey as China Conquers a Strategic Area,” *The Los Angeles Times*, November 12, (2020). <https://www.latimes.com/world-nation/story/2020-11-12/china-attacks-fishing-boats-in-conquest-of-south-china-sea>.

Chinese fishing vessels anchored at Whitsun Reef in the Spratly Islands in March 2021 that triggered international consternation, proving once again that fisheries in the SCS remained the subject of heated geopolitical disputes.¹³ This incident was unprecedented in scale and notable for its duration. It was the largest number of Chinese fishing vessels gathered at any one time at a single Spratly reef, maintaining this presence for several weeks.¹⁴ The concentration of so many boats in a highly contested area is a powerful demonstration of the increasing involvement of fishing vessels in the ongoing conflict in the SCS.

III. Critical Commodity

The significant economic growth characterizing East Asia since the beginning of the 21st century has intensified the competition for fishing resources in the SCS.¹⁵ The SCS is home to some of the richest and most diverse fisheries in the world, but a rising demand, driven by both population growth and economic development, has led to overfishing. Fishing is equally important

¹³ “South China Sea: Alarm in the Philippines as 200 Chinese Vessels Gather at Disputed Reef,” *The Guardian*, March 22, (2021). <https://www.theguardian.com/world/2021/mar/22/south-china-sea-philippines-200-chinese-vessels-whitsun-reef>.

¹⁴ Brad Lendon. “Beijing Has a Navy It Doesn’t Even Admit Exists, Experts Say. And It’s Swarming Parts of the South China Sea,” *CNN Philippines*, April 13, (2021). <https://www.cnnphilippines.com/world/2021/4/13/Beijing-s-maritime-militia-explainer-.html>.

¹⁵ Beina Xu. “South China Sea Tensions,” *Council on Foreign Relations*, May 14, (2014). <https://theaseanpost.com/article/fishy-business-south-china-sea>.

to all SCS claimants. Factual elements relevant to the present analysis include the biological characteristics of the SCS, as well as the socioeconomic consideration of fisheries and fish processing to the region's coastal states.

Biologically speaking, the SCS is one of the top five most productive fishing zones in the world in terms of total annual marine production.¹⁶ Covering only 2.5 percent of the Earth's surface, the SCS comprises some 12 percent of the total global fish catch. Often described as the marine equivalent of the Amazon rainforest, the SCS ecosystem consists of 3,365 known species including Scombridae such as tuna and mackerel, demersal fish such as snapper and sole, invertebrates such as crab, shrimp and squid, reef fish such as grouper and parrotfish, and small coastal pelagic fish such as sardine and anchovy.¹⁷ Unfortunately, those valuable marine living resources have been under heavy fishing pressure for several decades and are now in serious jeopardy. Fish stocks have fallen 70 per cent to 95 per cent from 1950s levels, and 66 per cent to 75 per cent over the last 20 years.¹⁸ If nothing is done to improve fisheries management,

¹⁶ Angaindrankuma Gnanasagaran. "Fishy Business in the South China Sea," *The ASEAN Post*, July 22, (2018).

<https://theaseanpost.com/article/fishy-business-south-china-sea>.

¹⁷ Rashid Sumaila. "Comparative Valuation of Fisheries in Asian Large Marine Ecosystems with Emphasis on the East China Sea and South China Sea LMEs," *Deep Sea Research Part II: Topical Studies in Oceanography*, 163, no. 3, (2019): 97. <https://doi.org/10.1016/j.dsr2.2018.12.008>.

¹⁸ Shui-kai Chang et al. "A Step Forward to the Joint Management of the South China Sea Fisheries Resources: Joint Works on Catches, Management

simulation models project that by 2045 all species groups will decrease by as much as an additional 59 per cent from 2015 levels.¹⁹ Estimates are probably on the low side due to the proliferation of unreported and illegal fishing. Moreover, destructive fishing practices such as the use of dynamite and cyanide on coral reefs, coupled with artificial island-building, directly damage marine habitats. Pollution, too, from agricultural and coastal development contributes to marine life decline.²⁰

The socioeconomic consideration of fisheries and fish processing to East Asia cannot be overestimated. In fact, fish has provided, and continues to provide an important source of protein for the vast populations living in the region.²¹ While fish and other seafood comprises about 8.5 per cent of protein in China, it makes up over 15 per cent of total protein consumption in Cambodia, Indonesia, Malaysia, and the Philippines, and over 10 per cent in Taiwan, Thailand, and Vietnam. By comparison, fish and other seafood provides a little over 5 per cent of protein

Measures and Conservation Issues,” *Marine Policy*, 116, no.1, (2020): 103716. <https://doi.org/10.1016/j.marpol.2019.103716>.

¹⁹ Rashid Sumaila, and William W. L. Cheung. *Boom or Bust: The Future of Fish in the South China Sea*. Vancouver: University of British Columbia, (2015): 4.

²⁰ Dustin Kuan-Hsiung Wang. “Fisheries Management in the South China Sea,” in *Routledge Handbook of the South China Sea*, Keyuan Zou, ed. London: Routledge, (2021): 245. <https://doi.org/10.4324/9780367822217-18>.

²¹ Helda Khusun et al. “Animal and Plant Protein Food Sources in Indonesia Differ Across Socio- Demographic Groups: Socio-Cultural Research in Protein Transition in Indonesia and Malaysia,” *Front. Nutr.*, 9, no. 1, (2022): 762459. <https://doi.org/10.3389/fnut.2022.762459>.

consumption in the United Kingdom, a little less than 5 per cent in the United States, and less than 4.5 per cent in Germany.²² As populations and economies grow, regional appetite for fish is expected to increase. With rapid urbanization, the per capita consumption of fishery products will continue to rise as the growing Asian middle class continues to demand more sources of high-quality protein.²³ In the case of China, it was estimated that per capita consumption of fishery products has increased over 10 times, from merely 2 kg in the 1980s to 21.1 kg in 2010. This amount is projected to double within the next 20 years.²⁴ As the largest consumer in the world, China is expected to account for 38 per cent of global fish consumption in 2030.²⁵

A similar trend is being witnessed across Southeast Asia. Over the past four decades, per capita fish consumption in the

²² Rodger Baker et al. "Fish: The Overlooked Destabilizer in the South China Sea," *Stratfor*, February 12, (2016).
<https://worldview.stratfor.com/article/fish-overlooked-destabilizer-south-china-sea>.

²³ Simon Jennings et al. "Aquatic Food Security: Insights Into Challenges and Solutions from an Analysis of Interactions Between Fisheries Aquaculture, Food Safety, Human Health, Fish and Human Welfare, Economy and Environment," *Fish and Fisheries*, 17, no. 1, (2016): 894.
<https://doi.org/10.1111/faf.12152>.

²⁴ Hongzhou Zhang. "Fisheries Cooperation in the South China Sea: Evaluating the Options," *Marine Policy*, 89, no. 1, (2018): 72.
<https://doi.org/10.1016/j.marpol.2017.12.014>.

²⁵ "OECD-FAO Agricultural Outlook 2021-2030." OECD-FAO, last modified July 5, 2021.
https://reliefweb.int/report/world/oecd-fao-agricultural-outlook-2021-2030?gclid=EAIAIQobChMIppi26r-I_wIVGJ6WCh0nzwt4EAAYASAAEgIXVvD_BwE

region has more than doubled. It is now 1.8 times higher than the world average in 2013 (19.2 kg/person/year). Considering income growth, population expansion, and dietary changes in the region, fish consumption is projected to rise from 24.5 million tons in 2015 to 36.9 million tons in 2030, before hitting 47.1 million tons in 2050. Per capita fish consumption is expected to increase from 38.4 kg in 2015 to 51.5 kg in 2030 before reaching 61.5 kg in 2050.²⁶ As climate change, pollution and overfishing keep depleting fish stocks near the coasts, an ever-greater share of these countries' future demand will be sought in the contested waters of the SCS.²⁷

In addition to the crucial component of regional food security, the fishing industry is vital to the livelihoods of millions of people living in coastal areas who depend on it for their employment and revenue.²⁸ Asia hosts the largest fishing fleet in the world, estimated at 2.68 million vessels or about two-thirds of the global total in 2020. With an estimated 564,000 vessels, China's fishing fleet has grown to become the world's largest by far.²⁹ The SCS supports a population of about 2.7 million fishermen, the majority of whom are engaged in small-scale fisheries. In total, the SCS

²⁶ Chin Yee Chan et al. *Fish to 2050 in the ASEAN Region*. Penang: WorldFish, (2017): 18.

²⁷ Hongshou Zhang. "Chinese Fishermen in Disputed Waters: Not Quite a 'People's War'," *Marine Policy*, 68, no. 1, (2016): 68. <https://doi.org/10.1016/j.marpol.2016.02.018>.

²⁸ Wang, "Fisheries Management in the South China Sea," 243.

²⁹ FAO, "The State of World Fisheries and Aquaculture 2022. Towards Blue Transformation."

fisheries economy employs around 3.7 million people, though this likely an underestimate as fishery is the foundation for many other economic sectors in the coastal regions.³⁰ For instance, with nearly 10,000 processing companies which rely on the marine catch sector for raw materials, China is not only the biggest fishery producer, it also has the largest fishery processing sector in the world. Similarly, marine fishery is important for the development of marine tourism, ship building, and onshore catering sectors not only in China but in many countries in Southeast Asia.³¹ In 2020, China, Indonesia, Vietnam, the Philippines, Thailand and Malaysia figured among the top 15 producing countries of global capture fisheries, while China, Vietnam and Thailand rank among the top five fishery exporters in the world.³² Since multiple economies in the region have a stake in the same fish stocks, safeguarding access to these valuable yet contentious fishing zones will remain a priority for coastal states.

IV. From Conflict to Cooperation

Endangered fisheries pose a serious dilemma as SCS claimants seek to maintain or restore fish stocks at sustainable

³⁰ Rashid Sumaila et al. *Sink or Swim: The Future of Fisheries in the East and South China Seas*. Hong Kong: ADM Capital Foundation, (2021): 8.

³¹ Zhang, "Fisheries Cooperation in the South China Sea: Evaluating the Options," 74.

³² FAO, "The State of World Fisheries and Aquaculture 2022. Towards Blue Transformation."

levels without incurring economic losses or conceding ground on sovereignty rights. The engagement of fishermen in regular violent incidents further undermines incentives for providing adequate international governance. The stakes are high for all of the countries bordering the SCS to transcend unilateral interests to pursue a consensual approach dedicated to the preservation of fishing resources and regional stability.

Conflict occurs when the activity of one group or individual interferes, either in reality or in perception, with the activities of another group or individual to such an extent that one party seeks dominance over the other.³³ Conflict is relatively common in all fishing communities where the reliance upon fishing as a source of food, employment, and revenue is crucial.³⁴ Fishery conflicts are generally viewed in the context of resource allocation or access rights. However, they are often rooted in more complex institutional issues such as cultural differences and struggles over political power.³⁵ It is important to note that not all conflicts result in violence. Fishery conflicts can be part of an iterative

³³ Murshed-e-Jahan Khondker, and Arshad Hossain. *Enabling Conflict Resolution for Better Fisheries Management: Experience from the Inland Fisheries of Bangladesh*. Penang: WorldFish Center, (2005): Annex 7.3.

³⁴ Kjell Grip, and Sven Blomqvist. "Marine Nature Conservation and Conflicts with Fisheries," *Ambio: A Journal of Environment Society*, 49, no. 1, (2020): 1329. <https://doi.org/10.1007/s13280-019-01279-7>.

³⁵ Elizabeth Bennett et al. "Towards a Better Understanding of Conflict Management in Tropical Fisheries: Evidence from Ghana, Bangladesh and the Caribbean," *Marine Policy*, 25, no. 1, (2001): 366-368. [https://doi.org/10.1016/S0308-597X\(01\)00022-7](https://doi.org/10.1016/S0308-597X(01)00022-7).

process of institutional change and evolution that, in the end, may deliver a positive outcome.³⁶ Unlike the realist model, the conflict resolution approach considers the possibility for fishery conflicts to become a catalyst for much needed cooperation for security, environmental and economic improvements.

The field of conflict resolution emerged in the post-World War II period as part of an effort to imagine and establish an international order in which the carnage witnessed in the two world wars would be a thing of the past. Conflict resolution can be defined as a way to find a solution behind a disagreement.³⁷ Lund (1996) introduces military approaches, non-military approaches, and development and governance approaches as three broad conceptual categories in which different policy options are elaborated to secure reconciliation among divided societies.³⁸ More interested in both structural and perceptual factors affecting conflict systems, Beriker (2009) argues that conflict resolution does not take a partisan attitude to conflict situations. Instead of attributing the cause of the conflict to the other side's characteristics, she focuses on what parties can do to influence the conflict process. In order to help the parties solve their crises,

³⁶ Nerissa Salayo et al. "An Overview of Fisheries Conflicts in South and Southeast Asia: Recommendations, Challenges and Directions," *WorldFish Center Quarterly*, 29, no. 1-2, (2006): 12.

³⁷ Wayan Midhio, and Adnan Madjid. "A Literature Review of Conflict Resolution," *Journal Pertahanan*, 1, no. 3 (2015): 180.

³⁸ Michael Lund. *Preventing Violent Conflicts: A Strategy for Preventive Diplomacy*. Washington: United States Institute of Peace Press, (1996): 3-17.

Beriker considers that “*intelligent analyses of conflicts have to be made, and creative intervention designs have to be developed to enhance trust between the parties and to overcome prejudices and stereotypes that hinder problem-solving processes.*”³⁹ However, it is probably the fundamental role played by international law in providing ideational and institutional frameworks for the sort of collaboration between states that is the most relevant and yet the most fleeting. According to Yasuaki (2017), international law functions as a tool for communication, mediation, and conciliation. Without such a normative basis, disputing parties cannot expect to engage in negotiation because their conflict may remain a raw conflict, which may lead to violence and armed struggle.⁴⁰

The current state of fisheries in the SCS calls for the early initiation and conclusion of an appropriate fishery arrangement between the different parties involved. The purpose of such an arrangement is twofold: one being the development of sustainable fisheries and the other the prevention of tensions and frictions. Conflict resolution theorists argue that opposing governments will only engage in cooperation where and when there are mutual

³⁹ Nimet Beriker. “Conflict Resolution: The Missing Link Between Liberal International Relations Theory and Realistic Practice,” in *Handbook of Conflict Analysis and Resolution*, Dennis Sandole, Sean Byrne, Ingrid Sandole-Staroste, and Jessica Senehi, eds. Oxford: Routledge, (2009): 266.

⁴⁰ Onuma Yasuaki. *International Law in a Transcivilizational World*. Cambridge: Cambridge University Press, (2017): 30-34.
<https://doi.org/10.1017/9781139175951>.

interests and gains to be derived.⁴¹ In the case of the SCS, it seems evident that the different parties involved could benefit from the improvements mentioned above. Fish and seafood are certainly more tangible objects for negotiation than ownership claims over seabed energy resources. Despite a lack of compelling supportive evidence, it is frequently indicated that the SCS is host to substantial reserves of hydrocarbons.⁴² Given the demand for oil and gas in the region, cooperative efforts in the exploration and exploitation of local hydrocarbon resources represent an attractive solution.⁴³ In fact, just such a solution was achieved in 2005 with a tripartite agreement, called the Joint Marine Seismic Undertaking (JMSU), signed between the national oil companies of China, the Philippines, and Vietnam.⁴⁴ But the enthusiasm of what was once hailed as a “*historic contribution to the peace, stability and development in the South China Sea*” and “*a model for cooperation in the region*” rapidly

⁴¹ Mely Caballero-Anthony, and Alistair D. B. Cook. *Non-Traditional Security in Asia*. Singapore: Institute of Southeast Asia, (2013): 1-7.

⁴² Yen-Chiang Chang. “Governance of Non-Living Resources in the South China Sea,” in *Routledge Handbook of the South China Sea*, Keyuan Zou, ed. London: Routledge, (2021): 263-264.
<https://doi.org/10.4324/9780367822217-19>.

⁴³ Mu Ramkumar et al. “Removed: Hydrocarbon Reserves of the South China Sea: Implications for Regional Energy Security,” *Energy Geoscience*, 29, no. 1-2, (2020): 1. <https://doi.org/10.1016/j.engeos.2020.06.001>.

⁴⁴ Thang Nguyen-Dang. “Fisheries Co-operation in the South China Sea and the (Ir)Relevance of the Sovereignty Question,” *Asian Journal of International Law*, 2, no. 1, (2012): 60. <https://doi.org/10.1017/S2044251311000099>.

faded away, and the agreement ended in oblivion.⁴⁵ The failure of the JMSU raises questions about the capacity of SCS claimants to succeed in cooperative engagement.

Serving as a confidence-building measure, a fishery arrangement is more realistic and feasible than a joint petroleum development scheme. Several reasons support this argument. First, fishing activities are ongoing, while the exploration and exploitation of local hydrocarbon resources will have to start more or less from scratch. It is easier to regulate existing activities than to impose order and procedures on future activities. Second, the implementation of a joint petroleum development scheme is a time-consuming process and requires considerable financial investments.⁴⁶ Third, fish and seafood do not possess the same strategic dimension as energy resources, and therefore are not paralyzed by deep diplomatic logjam. Theoretical and empirical evidence shows that effective cooperation on the issues of relatively low politics, such as fishery cooperation, can not only generate the convincing trust needed for cooperation on matters of high politics, such as territorial disputes, but can also develop

⁴⁵ “Foreign Ministry Spokesman Liu Jianchao’s Comment on the Joint Marine Seismic Undertaking Accord Signed by the Oil Companies of China, Vietnam and the Philippines.” Ministry of Foreign Affairs of the PRC, accessed January 11, 2023.

http://pg.china-embassy.gov.cn/eng/fyrth/200503/t20050316_916891.htm.

⁴⁶ Thang Nguyen-Dang. “Fisheries Co-operation in the South China Sea and the (Ir)Relevance of the Sovereignty Question,” 61.

itself into an element of common ground between states rather than an activity leading to competition and confrontation.⁴⁷

V. Diplomatic Engagement

The SCS is no stranger to fishery cooperation. In fact, various forms of engagement have been undertaken by SCS countries, despite their tense relationships. At a broader regional level, most of them are members of the Asia-Pacific Fishery Commission (APFIC), which was founded by the Food and Agriculture Organization of the United Nations in 1948, making it one of the earliest-established regional fishery bodies. Committed to acting as a consultative forum, the APFIC provides member states with the opportunity to review and discuss challenges facing the region's fisheries sector and helps them decide on the most appropriate actions to take.⁴⁸ In 2011, the Asia-Pacific Economic Cooperation formed the APEC's Oceans and Fisheries Working Group (OFWG) with the mission of promoting the sustainable use of fisheries, aquaculture, and marine ecosystem resources and related goods and services. In the past few years, OFWG members have been engaged in the implementation of working plans such as the 2019 APEC Roadman on Marine Debris Management and the 2019 Roadmap on Combatting

⁴⁷ Zhang, "Fisheries Cooperation in the South China Sea: Evaluating the Options," 71.

⁴⁸ "Asia-Pacific Fishery Commission Convenes Amid COVID-19's Continued Menace to World's Fisheries Hub." FAO, last modified May 5, 2021. <https://www.fao.org/asiapacific/news/detail-events/en/c/1397780/>.

Illegal Fishing.⁴⁹ Member states participate on the basis of open dialogue and respect for the views of all participants.

Another entity, the Western and Central Pacific Fisheries Commission (WCPFC), was created in 2004 by the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Pacific Ocean.⁵⁰ The WCPFC seeks to address problems in the management of high seas fisheries resulting from unregulated fishing, over-capitalization, excessive fleet capacity, vessel re-flagging to escape controls, insufficiently selective gear, unreliable databases and insufficient multilateral cooperation in respect to conservation and management of highly migratory fish stocks.⁵¹ The Commission has implemented a series of monitoring, control and surveillance programs to promote members' compliance with conservation and management measures and other decisions, generally achieved by consensus. One such program is the capacity to board and inspect fishing vessels, including the authorization of member states to board and inspect fishing vessels of other members. The WCPFC covers almost 20 per cent of the Earth's surface. While the

⁴⁹ "Ocean and Fisheries." APEC, last modified September 1, 2021.

<https://www.apec.org/groups/som-steering-committee-on-economic-and-technical-cooperation/working-groups/ocean-and-fisheries>.

⁵⁰ Philip M. Saunders. "The Western and Central Pacific Fisheries Commission: Management Challenges and Development Imperatives," in *Recasting Transboundary Fisheries Management Arrangements in Light of Sustainability Principles*, Dawn A. Russell and David L. VanderZwaag, eds. Leiden: Brill, (2010): 149. <https://doi.org/10.1163/ej.9789004174405.i-545.40>.

⁵¹ Wang, "Fisheries Management in the South China Sea," 252.

Western boundary notionally extends to the East Asian seaboard, it is understood that the Commission's area does not include the SCS.⁵²

At the ASEAN level, the Southeast Asian Fisheries Development Center (SEAFDEC) is an autonomous inter-governmental body established in 1967. It consists of 10 ASEAN member states and Japan. The SEAFDEC is mandated to develop and manage the fisheries potential of the region by rational utilization of resources for providing food security and safety to the people and alleviating poverty through the transfer of new technologies, research, and information dissemination activities. It is a technical organization with no management authority.⁵³ The importance of environmental and marine protection is also reflected in various ASEAN documents including the Jakarta Resolution on Sustainable Development, the Kuala Lumpur Accord on Environment and Development, the Singapore Resolution on Environment and Development, the Bandar Seri Begawan Resolution on Environment and Development, and the Jakarta Declaration on Environment and Declaration. These agreements represent a clear commitment

⁵² "Frequently Asked Questions and Brochures." WCPFC, accessed July 27, 2023. <https://www.wcpfc.int/frequently-asked-questions-and-brochures>.

⁵³ "Regional Fishery Bodies Summary Descriptions. Southeast Asian Fisheries Development Center. Fishery Governance Fact Sheets. Fisheries and Aquaculture Division." FAO, accessed February 28, 2023. <https://www.fao.org/fishery/en/organization/seafdec>.

towards sustainable development, but are non-legally binding soft laws.

While China is not a member of ASEAN, it has long historical ties with Southeast Asian nations. In 2002, both parties signed a declaration on conduct for the SCS, which was the first time that Beijing had accepted a multilateral agreement on this issue. ASEAN had been attempting to obtain Chinese endorsement of international norms of behavior over the SCS since 1992.⁵⁴ Officially known as the Declaration of the Conduct of Parties in the South China Sea (DOC), that document saw all countries pledge to eventually conclude a binding code of conduct, noting that “*the adoption of a code of conduct in the South China Sea would further promote peace and stability in the region.*”⁵⁵ In 2017, the foreign ministers of ASEAN and China endorsed the Framework for the Code of Conduct for the SCS. The text contains many of the same principles enunciated in the DOC, but adds new references to the prevention and management of incidents, as well as a seemingly more substantial commitment to maritime security and freedom of navigation. However, the phrase “legally binding” remains desperately absent, as are the

⁵⁴ Leszek Buszynski. “ASEAN, the Declaration on Conduct, and the South China Sea,” *Contemporary Southeast Asia*, 25, no. 3, (2003): 343-344. <https://doi.org/10.1355/CS25-3A>.

⁵⁵ “Declaration on the Conduct of Parties in the South China Sea.” ASEAN, last modified May 14, 2012. <https://asean.org/declaration-on-the-conduct-of-parties-in-the-south-china-sea-2/>.

geographical scope of the agreement and enforcement and arbitration mechanisms.⁵⁶

To help reduce tensions and build confidence, the region's coastal states have favored a different type of approach, one that focuses on bilateral arrangements. For instance, in 2000, Hanoi and Beijing signed the Sino-Vietnamese Boundary Delimitation Agreement in the Gulf of Tonkin. The two sides pledged in the agreement to respect the sovereignty, sovereign rights, and jurisdiction of each side over the territorial sea, EEZs, and continental shelf in the Gulf.⁵⁷ The agreement expired in 2020 and has not been renewed. However, it is the increased use of Memoranda of Understanding (MOU) that has come to define the nature of bilateral cooperation in the region. An MOU clarifies how two parties will work together and lays out each one's expectations and responsibilities. The objective is to achieve a mutual understanding of the partnership in order to move forward toward an enforceable contract that is amenable to all parties. In 1991, Taiwan signed just such an arrangement with the Philippines on agriculture and fishery collaboration and on maritime navigation routes, but Manila unilaterally abolished the

⁵⁶ Ian Storey. "Assessing the ASEAN-China Framework for the Code of Conduct for the South China Sea," *Perspective*, 62, no. 1, (2017): 1.

⁵⁷ "Vietnam-China Boundary Delimitation Agreement in the Gulf of Tonkin," *Vietnam News Agency*, January 11, (2021).

<https://en.vietnamplus.vn/vietnam-china-boundary-delimitation-agreement-in-the-gulf-of-tonkin/194526.vnp>.

MOU in 1998.⁵⁸ Indonesia and Malaysia signed an MOU in 2012 laying out common guidelines for the treatment of fishermen by the maritime law enforcement agencies of the two countries.⁵⁹ A year later, it was with Beijing that Jakarta signed an MOU aimed at managing the sustainability of their marine and fishery partnership.⁶⁰ In 2021, Indonesia and China added a second MOU on the subject of boosting fishery cooperation between the Chinese province of Fujian and Salim Group, Indonesia's largest conglomerate.⁶¹ Several projects are being finalized at the time of writing, and are expected to be signed in 2023, including an MOU between Indonesia and the Philippines touching on combating illegal fishing, sustainable aquaculture development, and coastal management and development, as well as an MOU between Malaysia and Vietnam over the issue of Vietnamese fishing boats

⁵⁸ Hurng-Yu Chen. "Philippine Fisheries Pact Unrealistic," *Taipei Times*, May 21, (2013).
<https://www.taipetimes.com/News/editorials/archives/2013/05/21/2003562771>

⁵⁹ Jason Loh and Anis Salwana Abdul Malik. "Moving Towards A Common Fisheries Policy," *The Sun Daily*, August 20, (2022).
<https://www.thesundaily.my/opinion/moving-towards-a-common-fisheries-policy-LE9644793>.

⁶⁰ "Indonesia, China Sign MOU on Fishery Partnership," *The Jakarta Post*, October 3, (2013).
<https://www.thejakartapost.com/news/2013/10/03/indonesia-china-sign-mou-fishery-partnership.html>.

⁶¹ Bin Wu. "China-Indonesia Project of Two Countries Twin Parks Boosts Fishery Cooperation," *CGTN*, July 26, (2022).
<https://news.cgtn.com/news/2022-07-26/China-and-Indonesia-aim-to-boost-fishery-cooperation--1bZ9T00EgnK/index.html>.

entering waters claimed by Kuala Lumpur.⁶² The relevance of the latter deal should not be underestimated as it would be the first agreement to directly address infringement of maritime sovereignty in the SCS.

While China has agreed to join multilateral frameworks, it still supports strengthening and deepening bilateral relations to address territorial disputes over maritime rights and interests. From Beijing's perspective, negotiating bilaterally allows Chinese negotiators to use the size and power of China's economy to their advantage. Being in a dominant position, China essentially gets more leverage to obtain what it wants in bilateral talks. The three-day state visit of Philippine President Ferdinand Marcos Jr. to Beijing in January 2023 is an excellent example of this approach. Marcos Jr. is only the second contemporary Philippine leader, following Rodrigo Duterte, to have chosen to visit China ahead of traditional allies such as the United States and Japan. China, which accounts for 20 per cent of the country's foreign trade and is also a significant source of foreign direct investment, is a major economic partner of the Philippines.⁶³ During this state visit, the two sides vowed to establish a direct communication

⁶² Mingxuan Lin. "Malaysia and Vietnam to Sign Maritime Memorandum of Understanding." *London Politica*, April 8, (2023).

<https://londonpolitica.com/apac/politicalriskexplained>.

⁶³ "China, Philippines Agree on Cooling Tensions, Boosting Trade," *DW*, January 5, (2023).

<https://www.dw.com/en/china-philippines-agree-on-cooling-tensions-boosting-trade/a-64289537>.

channel between their foreign ministries to avoid “miscalculation and miscommunication” in the SCS.⁶⁴ The details of this arrangement are unknown at the moment, but it could take the form of an emergency hotline such as the one set up between China and Vietnam in 2022 to deal with “marine fisheries incidents”.⁶⁵ The purpose of a hotline is to control disagreements without acting to complicate the situation or worsen disputes.

Bilateralism and multilateralism are not at odds with each other, but rather complement and reinforce each other. Multilateral cooperation is the functional enhancement, expansion, and spillover of bilateral cooperation.⁶⁶ The absence of a multilateral agreement to govern fisheries issues is considered one of the key contributors to increasing fishing conflicts and the depletion of fish stocks in the SCS.⁶⁷ The participation of SCS claimants to bilateral and multilateral engagements shows a desire to tackle those problems. Regrettably, empirical evidence suggests that such engagements have failed to defuse security tensions or

⁶⁴ “Marcos’ Visit makes China-Philippines ‘Tension’ Collapse on Itself,” *Global Times*, January 4, (2023).

<https://www.globaltimes.cn/page/202301/1283154.shtml>.

⁶⁵ “Vietnam Agrees on Fishing Hotline with China but Pace of Trade ‘Slow’,” *South China Morning Post*, July 4, (2022).

<https://www.scmp.com/news/china/diplomacy/article/3185236/vietnam-agrees-fishing-hotline-china-pace-trade-slow>.

⁶⁶ Zuokui Liu. “Bilateral + Multilateral Theory: A New Exploration of China-CEEC Cooperation,” *Journal of the Party School of the Central Committee of the C.P.C.*, 2, no. 37, (2022): 1.

⁶⁷ Zhang, “Fisheries Cooperation in the South China Sea: Evaluating the Options,” 74.

lead to the adoption of conservation measures. Given the consensus-based decision-making process in Southeast Asia (particularly the ASEAN way of diplomacy), regional arrangements tend to be negotiated, implemented, and revised according to the rule of unanimous consent. This consensual approach leads to “*each negotiating body to search for the lowest common denominator*” and complicates negotiations when a single state can resist the development of a common position and demand concessions for the price of achieving consensus.⁶⁸ In addition to the consensual approach being time-consuming, the provisions adopted remain all too often vague and ambiguous, ending up in disappointment. Furthermore, the lack of enforcement measures and arbitration mechanisms further weakens the effectiveness of whatever paltry gains are negotiated. Unfortunately, bilateral agreements do not constitute efficient tools to rectify those shortcomings, as local MOUs fail to contain legally binding obligations. To build on what has been constructed over the years in the field of fishery cooperation, SCS countries need to seriously consider the implementation of a formal structure that would provide accountability, shape interactions, and promote trust among the parties involved.⁶⁹ The adoption of concerted regional fisheries regulations constitutes the safest

⁶⁸ Zhang, “Fisheries Cooperation in the South China Sea: Evaluating the Options,” 75.

⁶⁹ Wang, “Fisheries Management in the South China Sea,” 257.

means of abating active disputes and limiting the severe overfishing and exploitation of the SCS.

VI. Conclusion

In the highly disputed area of the SCS, fishery conflicts have intensified in recent years due to declining fish stocks and increasing demand, and further fuelled by overlapping maritime claims. Given the importance of fisheries and fish processing to the region, simply maintaining the status quo is ineffective at best and disastrous at worst. If, however, SCS claimants can adopt a more coherent approach to negotiate a fishery arrangement, fish and seafood will remain on local menus and continue to be a major source of employment and revenue for coastal populations. This article argues that there is a heightened risk of clashes between the countries bordering the SCS, especially when the competition for fish and seafood touches upon national sovereignty, and that the best way of mitigating this risk may be to contain it under a manageable and enforceable mechanism. To be successful, such a mechanism would need to overcome the institutional inertia associated with SCS fisheries. There are genuine doubts concerning the feasibility of regulating fishing activities in the SCS. The sheer size of the sea, the magnitude of the fishing industries, and the unresolved territory and maritime boundary disputes pose severe challenges to the implementation of any restrictive and punitive measures. However, advancing

institutional cooperation among the parties involved is not a choice but a necessity. The establishment of formal controls should be recognized as a security, socioeconomic and ecological imperative. Less polemical and politically sensitive than the cooperative exploration for hydrocarbon resources, it is in the interests of the SCS claimants to reach a regional fishery cooperation agreement that will prevent disputes from boiling over into violent confrontations, and that will ensure sustainable use and exploitation into the future. The benefits certainly would make the efforts worthwhile. After more than ten years of negotiations, Vietnam and Indonesia signed a historical agreement on the boundaries of their respective EEZs in late December 2022. This agreement is a significant positive development for the region as both parties agreed to set aside the seemingly third-rail issue of sovereignty in order to resolve their conflicting claims peacefully. The demarcation of overlapping EEZs has long been a point of contention in the SCS. The conclusion of the agreement brings optimism that, with determination, SCS countries can engage in joint management of the marine environment upon which all their people rely. In reference to the intractable political and military wrangling in the SCS, it seems that the need for such collaborative engagement and common inspiration has never been greater.

VII. Bibliography

AP. “Indonesia Sinks 51 Foreign Boats to Fight Against Poaching.” May 4, 2019.

https://apnews.com/article/a09d2b989b9243e0a6c5c9f106efa61d_

APEC. “Ocean and Fisheries.” Last modified September 1, 2021.

<https://www.apec.org/groups/som-steering-committee-on-economic-and-technical-cooperation/working-groups/ocean-and-fisheries>.

ASEAN. “Declaration on the Conduct of Parties in the South China Sea.” Last modified May 14, 2012.

<https://asean.org/declaration-on-the-conduct-of-parties-in-the-south-china-sea-2/>

Baker, Rodger, Rees, Evans, and Harnagel, Amelia. “Fish: The Overlooked Destabilizer in the South China Sea.” *Stratfor*, February 12, (2016).

<https://worldview.stratfor.com/article/fish-overlooked-destabilizer-south-china-sea>.

Bengali, Shashank, and Vo Kieu Bao Uyen. “Sunken Boats. Stolen Gear. Fishermen Are Prey as China Conquers a Strategic Area.” *The Los Angeles Times*, November 12, (2020).

<https://www.latimes.com/world-nation/story/2020-11-12/china-attacks-fishing-boats-in-conquest-of-south-china-sea>.

Bennett, Elizabeth, Neiland, Arthur, Anang, Emilia, Bannerman, Paul, Rahman, Atiq A., Huq, Saleemul, Bhuiya, Shajahan, Day, Mark, Fulford-Gardiner, Michelle, and Clerveaux, Wesley. "Towards a Better Understanding of Conflict Management in Tropical Fisheries: Evidence from Ghana, Bangladesh and the Caribbean," *Marine Policy*, 25, no. 1, (2001): 365-376.
[https://doi.org/10.1016/S0308-597X\(01\)00022-7](https://doi.org/10.1016/S0308-597X(01)00022-7).

Beriker, Nimet. "Conflict Resolution: The Missing Link Between Liberal International Relations Theory and Realistic Practice," In *Handbook of Conflict Analysis and Resolution*, Dennis Sandole, Sean Byrne, Ingrid Sandole-Staroste, and Jessica Senehi, eds. Oxford: Routledge, (2009): 727-747.

Buszynski, Leszek. "ASEAN, the Declaration on Conduct, and the South China Sea," *Contemporary Southeast Asia*, 25, no. 3, (2003): 343-362. <https://doi.org/10.1355/CS25-3A>.

Caballero-Anthony, Mely, and Alistair D. B. Cook.
Non-Traditional Security in Asia. Singapore: Institute of Southeast Asia, (2013).

Cao, Viet Hung Nguyen. "Vietnam's Struggles in the South China Sea: Challenges and Opportunities." *Centre for International*

Maritime Security, September 21, (2020).

<https://cimsec.org/vietnams-struggles-in-the-south-china-sea-challenges-and-opportunities>.

Chan, Chin Yee, Tran, Nhuang, Dao, Danh Chi, Sulser, Timothy B., Phillips, Michael John, Batka, Miroslav, Wiebe, Keith, and Preston, Nigel. *Fish to 2050 in the ASEAN Region*. Penang: WorldFish, (2017).

Chang, Shui-Kai, Hu, Nien-Tsu Alfred, Vasir, Samsudin, Duyen, Hai Vu, Noolmom, Praulai, Santos, Mudjekeewis, and Satria, Fayakun. "A Step Forward to the Joint Management of the South China Sea Fisheries Resources: Joint Works on Catches, Management Measures and Conservation Issues," *Marine Policy*, 116, no. 1, (2020): 103716.
<https://doi.org/10.1016/j.marpol.2019.103716>.

Chang, Yen-Chiang. "Governance of Non-Living Resources in the South China Sea," In *Routledge Handbook of the South China Sea*, Keyuan Zou, ed. London: Routledge, (2021): 262-277. <https://doi.org/10.4324/9780367822217-19>.

Chen, Hurng-Yu. "Philippine Fisheries Pact Unrealistic." *Taipei Times*, May 21, (2013).
<https://www.taipeitimes.com/News/editorials/archives/2013/05/21/2003562771>.

Dorsett, Jesse, and Felicity James. "Vietnamese Illegal Fishing Boats Destroyed After Seizure off Top End Coast." *ABC News*, April 4, (2014).

<https://www.abc.net.au/news/2014-04-04/illegal-vietnamese-fishing-boats-destroyed-in-darwin-giant-clams/5367304>.

DW. "China, Philippines Agree on Cooling Tensions, Boosting Trade." January 5, 2023.

<https://www.dw.com/en/china-philippines-agree-on-cooling-tensions-boosting-trade/a-64289537>.

DW. "Philippines Admits Sea Shooting." May 10, 2013.

<https://www.dw.com/en/philippines-admits-shooting-of-taiwanese-fisherman/a-16802541>.

FAO. "Regional Fishery Bodies Summary Descriptions.

Southeast Asian Fisheries Development Center. Fishery Governance Fact Sheets. Fisheries and Aquaculture Division." Accessed February 28, 2023.

https://www.fao.org/fishery/en/organization/seafdec_

FAO. "The State of World Fisheries and Aquaculture 2022.

Towards Blue Transformation." Last modified June 29, 2022. https://reliefweb.int/report/world/state-world-fisheries-and-aquaculture-2022-enarruzh?gclid=EAIaIQobChMIz6q9x8CI_wIVtNhMAh3V0AFzEAAYASAAEgKPjvD_BwE.

- FAO. “Asia-Pacific Fishery Commission Convenes Amid COVID-19’s Continued Menace to World’s Fisheries Hub.” Last modified May 5, 2021.
<https://www.fao.org/asiapacific/news/detail-events/en/c/1397780/>.
- Global Times*. “Marcos’ Visit makes China-Philippines ‘Tension’ Collapse on Itself.” January 4, 2023.
<https://www.globaltimes.cn/page/202301/1283154.shtml>.
- Gnanasagaran, Angaindrankuma. “Fishy Business in the South China Sea.” *The ASEAN Post*, July 22, (2018).
<https://theaseanpost.com/article/fishy-business-south-china-sea>.
- Grare, Frederic. “Fish and Ships: Chinese Fishing and Europe’s Indo-Pacific Strategy.” *European Council on Foreign Relations*, August 24, (2021).
<https://ecfr.eu/publication/fish-and-ships-chinese-fishing-and-europes-indo-pacific-strategy>.
- Grip, Kjell, and Sven Blomqvist. “Marine Nature Conservation and Conflicts with Fisheries,” *Ambio: A Journal of Environment Society*, 49, no. 1, (2020): 1328-1340.
<https://doi.org/10.1007/s13280-019-01279-7>.
- Grossman, Derek. “Why Is China Pressing Indonesia Again Over Its Maritime Claims?” *RAND Corporation*, January 16,

(2020).

<https://www.rand.org/blog/2020/01/why-is-china-pressing-in-donesia-again-over-its-maritime.html>.

Jennings, Simon, Stentiford, Grant D., Leocadio, Ana M., Jeffery, Keith, Metcalfe, Julian, and Katsiadaki, Ionna. "Aquatic Food Security: Insights Into Challenges and Solutions from an Analysis of Interactions Between Fisheries Aquaculture, Food Safety, Human Health, Fish and Human Welfare, Economy and Environment," *Fish and Fisheries*, 17, no. 1, (2016): 893-938. <https://doi.org/10.1111/faf.12152>.

Keck, Zachary. "Philippines Seizes Chinese Fishing Boat in the South China Sea." *The Diplomat*, May 7, (2014). <https://thediplomat.com/2014/05/philippines-seizes-chinese-fishing-boat-in-south-china-sea>.

Khondker, Murshed-e-Jahan, and Arshad Hossain. *Enabling Conflict Resolution for Better Fisheries Management: Experience from the Inland Fisheries of Bangladesh*. Penang: WorldFish Center, (2005).

Khusun Helda, Februhartanty, Judhiastuty, Anggraini, Roselynn, Mognard, Elise, Alem, Yasmine, Noor, Mohd Ismail, Karim, Norimah, Laporte, Cyrille, Poulain, Jean-Pierre, Monsivais, Pablo, and Drewnowski, Adam. "Animal and Plant Protein Food Sources in Indonesia Differ Across Socio-Demographic Groups: Socio-Cultural Research in

Protein Transition in Indonesia and Malaysia,” *Front. Nutr.*, 9, no. 1, (2022): 762459.
<https://doi.org/10.3389/fnut.2022.762459>.

London, Brad. “Beijing Has a Navy It Doesn’t Even Admit Exists, Experts Say. And It’s Swarming Parts of the South China Sea.” *CNN Philippines*, April 13, (2021).
<https://www.cnnphilippines.com/world/2021/4/13/Beijing-s-maritime-militia-explainer-.html>.

Lin, Mingxuan. “Malaysia and Vietnam to Sign Maritime Memorandum of Understanding.” *London Politica*, April 8, (2023).
<https://londonpolitica.com/apac/politicalriskexplained>.

Liu, Zuokui. “Bilateral + Multilateral Theory: A New Exploration of China-CEEC Cooperation,” *Journal of the Party School of the Central Committee of the C.P.C*, 2, no. 37, (2022): 1-9.

Loh, Jason, and Anis Salwana Abdul Malik. “Moving Towards A Common Fisheries Policy.” *The Sun Daily*, August 20, (2022).
<https://www.thesundaily.my/opinion/moving-towards-a-common-fisheries-policy-LE9644793>.

Lund, Michael. *Preventing Violent Conflicts: A Strategy for Preventive Diplomacy*. Washington, DC: United States Institute of Peace Press, (1996).

- McDorman, Ted L. "The Territorial Sovereignty Disputes in the South China Sea," In *Routledge Handbook of the South China Sea*, Keyuan Zou, ed. London: Routledge, (2021): 91-103. <https://doi.org/10.4324/9780367822217-8>.
- Midhio, Wayan, and Adnan Madjid. "A Literature Review of Conflict Resolution," *Journal Pertahanan*, 1, no. 3, (2015): 179-196.
- Ministry of Foreign Affairs of the PRC. "Foreign Ministry Spokesman Liu Jianchao's Comment on the Joint Marine Seismic Undertaking Accord Signed by the Oil Companies of China, Vietnam and the Philippines." Accessed 11, 2023. http://pg.china-embassy.gov.cn/eng/fyrth/200503/t20050316_916891.htm.
- Nguyen-Dang, Thang. "Fisheries Co-operation in the South China Sea and the (Ir)Relevance of the Sovereignty Question," *Asian Journal of International Law*, 2, no. 1, (2012): 59-88. <https://doi.org/10.1017/S2044251311000099>.
- OECD-FAO. "OECD-FAO Agricultural Outlook 2021-2030." Last modified July 5, 2021. https://reliefweb.int/report/world/oecd-fao-agricultural-outlook-2021-2030?gclid=EAIaIQobChMIppi26r-I_wIVGJ6WCh0nzw4EAAYASAAEgIXVvD_BwE.

Radio Free Asia. “China Has Right to Sail Near Indonesia’s Natuna Islands, Beijing Says.” January 2, 2020.
<https://www.rfa.org/english/news/china/indonesia-natuna-01022020165115.html>.

Ramkumar, Mu, Santosh, M., Manoj, Mathew, Menier, David, Nagarajan, R., and Sautter, Benjamin. “Removed: Hydrocarbon Reserves of the South China Sea: Implications for Regional Energy Security,” *Energy Geoscience*, 29, no. 1-2, (2020): 1-7.
<https://doi.org/10.1016/j.engeos.2020.06.001>.

Salayo, Nerissa, Mahfuzuddin, Ahmed, Len, Garces, and Viswanathan, Kuperan. “An Overview of Fisheries Conflicts in South and Southeast Asia: Recommendations, Challenges and Directions,” *WorldFish Center Quarterly*, 29, no. 1-2, (2006): 11-20.

Saunders, Philip M. “The Western and Central Pacific Fisheries Commission: Management Challenges and Development Imperatives,” In *Recasting Transboundary Fisheries Management Arrangements in Light of Sustainability Principles*, Dawn A. Russell and David L. VanderZwaag, eds. Leiden: Brill, (2010): 149-174.
<https://doi.org/10.1163/ej.9789004174405.i-545.40>.

South China Morning Post. “Vietnam Agrees on Fishing Hotline with China but Pace of Trade ‘Slow’.” July 4, 2022.

<https://www.scmp.com/news/china/diplomacy/article/3185236/vietnam-agrees-fishing-hotline-china-pace-trade-slow>.

Storey, Ian. "Assessing the ASEAN-China Framework for the Code of Conduct for the South China Sea," *Perspective*, 62, no. 1, (2017): 1-7.

Sumaila, Rashid, Cheung, William W. L., Teh, Louise S. L., Bang, Ashley H. Y., Cashion, Tim, Zeng, Zeyu, Alava, Juan Jose, Le Clue, Sophie, and Sadovy de Mitcheson, Yvonnw. *Sink or Swim: The future of fisheries in the East and South China Seas*. Hong Kong: ADM Capital Foundation, (2021).

Sumaila, Rashid. "Comparative Valuation of Fisheries in Asian Large Marine Ecosystems with Emphasis on the East China Sea and South China Sea LMEs," *Deep Sea Research Part II: Topical Studies in Oceanography*, 163, no. 3, (2019): 96-101. <https://doi.org/10.1016/j.dsr2.2018.12.008>.

Sumaila, Rashid, and William W. L. Cheung. *Boom or Bust: The Future of Fish in the South China Sea*. Vancouver: University of British Columbia, (2015).

The Guardian. "South China Sea: Alarm in the Philippines as 200 Chinese Vessels Gather at Disputed Reef." March 22, 2021. <https://www.theguardian.com/world/2021/mar/22/south-china-sea-philippines-200-chinese-vessels-whitsun-reef>.

- The Guardian*. “China Denies Starting Fire on Vietnamese Fishing Boat.” March 27, 2013.
<https://www.theguardian.com/world/2013/mar/27/china-denies-fire-vietnamese-boat>.
- The Jakarta Post*. “Indonesia, China Sign MOU on Fishery Partnership.” October 3, 2013.
<https://www.thejakartapost.com/news/2013/10/03/indonesia-china-sign-mou-fishery-partnership.html>.
- Vietnam News Agency*. “Vietnam-China Boundary Delimitation Agreement in the Gulf of Tonkin.” January 11, 2021.
<https://en.vietnamplus.vn/vietnam-china-boundary-delimitation-agreement-in-the-gulf-of-tonkin/194526.vnp>.
- Wang, Dustin Kuan-Hsiung. “Fisheries Management in the South China Sea,” In *Routledge Handbook of the South China Sea*, Keyuan Zou, ed. London: Routledge, (2021): 243-261.
<https://doi.org/10.4324/9780367822217-18>.
- WCPFC. “Frequently Asked Questions and Brochures.” Accessed July 27, 2023.
<https://www.wcpfc.int/frequently-asked-questions-and-brochures>.
- Wu, Bin. “China-Indonesia Project of Two Countries Twin Parks Boosts Fishery Cooperation”. *CGTN*, July 26, (2022).
<https://news.cgtn.com/news/2022-07-26/China-and-Indonesi>

a-aim-to-boost-fishery-cooperation--1bZ9T00EgnK/index.html.

Xu, Beina. "South China Sea Tensions." *Council on Foreign Relations*, May 14, (2014).

<https://www.cfr.org/backgrounder/south-china-sea-tensions>.

Yasuaki, Onuma. *International Law in a Transcivilizational World*. Cambridge: Cambridge University Press, (2017).

<https://doi.org/10.1017/9781139175951>.

Zhang, Hongzhou. "Fisheries Cooperation in the South China Sea: Evaluating the Options," *Marine Policy*, 89, no. 1, (2018): 67-76. <https://doi.org/10.1016/j.marpol.2017.12.014>.

Zhang, Hongzhou. "Chinese Fishermen in Disputed Waters: Not Quite a 'People's War'," *Marine Policy*, 68, no. 1, (2016): 65-73. <https://doi.org/10.1016/j.marpol.2016.02.018>.