A COMPARATIVE STUDY OF FISHERY AND ENVIRONMENT LAWS IN THE SOUTH CHINA SEA: UTILISING EXISTING LAWS TO PROMOTE COOPERATION

Policy Report

March 2019

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Executive Summary

Though there is general consensus that claimants to the South China Sea should set aside territorial disputes and cooperate to preserve the overexploited natural resources of the sea, no such means of cooperation have yet been established. This policy report investigates whether such multilateral cooperation can be established by using existing similarities in the marine environmental laws and policies of claimant countries.

The policy report suggests the following:

1. China, Philippines, Vietnam, Malaysia, and Indonesia do indeed share similarities in their national laws and policies; most notably in the areas of destructive fishing methods and species protection.

2. Agreements utilising these similarities could take a number of forms, including as the building blocks for a holistic agreement such as a Regional Fisheries Management Organization (RFMO); a smaller, focused agreement in just one area; or an agreement based on shared principles, such as around pollution.

3. Showing claimant countries that there are similarities in their national laws may help to build confidence and serve as a less contentious route towards multilateral agreement.

Introduction

Disputes remain rife in the South China Sea (SCS) regarding territorial boundaries and the sovereignty of islands and rocks. Whilst complete resolution of these matters in the near future remains highly unlikely, there is a general consensus that in order to ensure stability at some level, claimant countries should set aside territorial disputes and focus on the natural resources of the sea.[1] Vital to millions of fishermen and consumers, fish stocks in the SCS have been depleted to less than half of the levels of the 1950s,[2] yet there appears to be little effort to halt further loss and prevent ecological catastrophe. Prominent figures, scholars, and researchers have discussed ways in which claimant countries can cooperate in the SCS,[3] but there remains little progress when it comes to actual implementation.

Examining the national laws and policies of SCS countries for existing commonalities could be a useful starting point to building multilateral cooperation around environmental protection. This approach may serve as a less contentious and easier route toward cooperation because the different countries are agreeing – at a regional level – on criteria they already agree on at a national level. This approach is explored in this policy report by looking at marine environmental laws and policies of five SCS countries – to understand if similarities exist, and if they do, how they could be used to build cooperation in the SCS.

Method

Desk-based research examined fishery and marine environment national laws, policies, and international agreements for China, the Philippines, Vietnam, Malaysia, and Indonesia between September 2017 and June 2018. A challenge to this research was that some law and policy documents are not available online or in English, particularly for China and Vietnam. To confirm findings and fill in gaps, confidential representatives from government agencies, non-governmental organisations, and academics from the respective countries were consulted. In addition, a number of online resources including peer-reviewed research articles and media articles were extensively reviewed. Future research could consider including more countries, such as Brunei, which is another claimant country.

[1] Zhang, H. (2018). Fisheries cooperation in the South China Sea: Evaluating the options. Marine Policy, 89, 67-76. Doi:10.1016/j/marpol.2017.12.014

[2] Sumaila, R., & Cheung, W. (2015) Boom or Bust: The Future of Fish in the South China Sea. University of British Columbia.

[3] Zhang, H. (2018). Fisheries cooperation in the South China Sea: Evaluating the options. Marine Policy, 89, 67-76. Doi:10.1016/j/marpol.2017.12.014

Results

Interviews revealed that many written laws and policies are not enforced. However, for the sake of this report, written laws and policies are covered even if they are not enforced. As the research progressed, more focus was given to emerging areas of similarity. Similarities in laws and policies for fishing gear regulation can be found in Annex 1; species and habitat protection in Annex 2; monitoring measures in Annex 3; and general principles which do not fit into the above in Annex 4.

Discussion

Some SCS countries are already cooperating bilaterally on fisheries issues – such as the 2009 China and Vietnam Gulf of Tonkin Fishery Agreement and Indonesia and Malaysia's 2002 memorandum of understanding (MoU) Concerning the Common Guidelines Treatment of Fishermen by Maritime Law Enforcement Agencies. This shows that countries recognise the importance of cooperating with their neighbours and suggests multilateral cooperation is a next viable step.

Three potential mechanisms by which commonalities in national laws and policies could be used to build multilateral cooperation for marine resources in the SCS will be discussed. They are: (i) a holistic agreement which utilises all commonalities to build management frameworks such as Regional Fisheries Management Organizations (RFMOs); (ii) a smaller, focused agreement which targets one or two very specific areas of commonality; and (iii) an agreement based on new targets arising from shared principles in national laws or international agreements.

1. A holistic agreement

There is currently no RFMO which includes the SCS. However, SCS claimants are members of RFMOs including the Western and Central Pacific Fisheries Commission and the Indian Ocean Tuna Commission, so they clearly see the value of RFMOs and the concept is not a novel one. RFMOs are recognised for playing a critical role in global fisheries governance and are of importance to

the sustainable management of the world's oceans.[4] Whilst their shortcomings in preventing fish stocks from overexploitation have been highlighted,[5] they still constitute the primary mechanism for achieving cooperation between fishing nations and ensuring that fishermen conduct themselves in accordance with a set of agreed rules.

Commonalities in national laws and policies (as outlined in Annexes 1-4) could provide the basis for provisions of an RFMO in the SCS. This may allow for a smoother negotiation process considering these provisions are already in writing at the national level and countries are supposedly already implementing them. As RFMOs can be all-encompassing, many of the commonalities could be used – including fishing gear regulations, and species and habitat protection. In the long term, more provisions would need to be incorporated to ensure stocks and ecosystems are effectively managed – for example Maximum Sustainable Yields, and quotas, which in the SCS would be dependent on further research as data for such management measures is currently lacking.[6]

2. A smaller, focused agreement

A SCS RFMO may be too ambitious for the near future, in which case smaller, more focused agreements could be pursued – such as an MoU, joint declaration, or other legally or non-legally binding instruments. On examining the national laws and policies which show commonality (Annexes 1-4), there are some commonalities that are more clear-cut that others. These can be treated as the "lowest hanging fruit" for agreement.

For example, all countries have an outright ban on explosive, poison, and electric fishing (Annex 1). Furthermore, all countries more or less fully protect all (or a large majority of) turtles and cetaceans (Annex 2). A multilateral agreement such as a joint declaration on these issues would be simpler than, for example, on trawling, the use of Vessel Monitoring Systems, or mesh size – where the countries have regulations, but the specifics differ (Annexes 1 and 3) and modification and implementation are costly. Additionally, Indonesia, Malaysia, the Philippines, and Vietnam along with other ASEAN countries signed an MoU on ASEAN Sea Turtle Conservation and Protection in ASEAN waters –

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4 Lodge, M. W., Anderson, D., Lobach, T., Munro, G., Sainsbury, K., & Willock, A. (2007). Recommended Best Practices for Regional Fisheries Management Organisations(Rep.). London: The Royal Institute of International Affairs. doi:978-1-86203-188-3

5 Cullis-Suzuki, S., & Pauly, D. (2010). Failing the high seas: A global evaluation of regional fisheries management organizations. Marine Policy,34(5), 1036-1042. doi:10.1016/j.marpol.2010.03.002

6 Melnychuk, M. C., Peterson, E., Elliott, M., & Hilborn, R. (2016). Fisheries management impacts on target species status. Proceedings of the National Academy of Sciences,114(1), 178-183. doi:10.1073/pnas.1609915114

demonstrating the potential for this approach to be applied to the SCS.

Whilst agreements could be based on the "lowest hanging fruit" as discussed above, they could also focus on areas of high priority or common needs such as joint marine scientific studies to inform management measures. As many species and stocks in the SCS are transboundary,[7] countries must share responsibility in understanding their movements and protecting them. Such an agreement may contribute more effectively to the stability of the SCS.

In light of territorial disputes, agreements around combating illegal, unreported, and unregulated (IUU) fishing – such as through monitoring measures (Annex 3) – may prove the most challenging, as the countries concerned have different perspectives on what constitutes IUU.

3. An agreement based on shared principles

The national laws and policies of the five countries show commonalities regarding general principles even if the written details differ. For example, though the written criteria for the creation of marine protected areas (MPAs), closed seasons, and what constitutes pollution are not exactly the same, they share the same general principles and are issues of concern to all countries (Annex 4). Countries could work from these shared principles to create new goals as part of a multilateral agreement – such as creating a network of MPAs, closing important spawning grounds, or finding ways to jointly fight marine pollution.

International agreements can also be examined to identify issues which countries already show interest in and find areas of overlap. For example, all countries except Malaysia made commitments at the 2017 EU Commission Conference "Our Ocean" to tackle plastic pollution. All five countries are also signatories to MARPOL – the International Convention for the Prevention of Pollution from ships. And all countries except Indonesia have committed to increasing their MPA coverage in line with the Aiichi Biodiversity Targets. A SCS multilateral agreement could be built off of targets and regulations countries already have to implement as part of these international agreements.

In particular, an agreement on marine plastics may offer a feasible starting point for the following reasons: it is less politically sensitive than fisheries management, yet is a threat to marine species and fisheries, and is garnering significant attention scientifically and in mainstream media.

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[7] Talaue-McManus, L. (2000). Transboundary Diagnostic Analysis for the South China Sea. EAS/RCU Technical Report Series No. 14. UNEP, Bangkok, Thailand http://www.cobsea.org/documents/Transboundary_Diagnostic_Analysis.pdf

Conclusion

The most feasible solution for cooperation in the SCS remains unclear. However, finding commonalities between claimant countries in how they manage marine resources, as has been done in this report, can help to identify possible starting points for developing agreements. This may not only build confidence among countries which do not often see eye to eye, but serve as a less contentious route toward cooperation, which is urgently needed to prevent the looming ecological catastrophe which will further exacerbate tensions in the SCS.

Annex 1. Fishing gear regulations which show commonality across the laws and policies of the five countries. (Findings are summarised and not an exact copy of wording from original law and policy documents).

	Indonesia	Malaysia	Vietnam	Philippines	China
Poisons and explosives	No chemical or biological substances, or explosives.	No poisons or explosives.	Prohibited chemicals, explosives.	No noxious or poisonous substances or explosives.	No poisons or explosives.
Electricity	No fishing in the EEZ with electricity.	No use of electricity.	Prohibited to use electrics.	No use of electricity.	No use of electricity.
Trawling	Nation-wide ban on trawling but permitted in certain areas.	Pair trawl or any net towed along the sea bed by two powered boats prohibited.	Bans development of powered vessels with a capacity of under 90 horse power used for fishing with trawl nets.	No person shall operate trawls in waters seven fathoms deep or less.	Trawl net and hang trawl banned during summer moratoria.
Mesh size					
Overall mesh size (applicable to all gear)	≥ 2.5cm	-	-	>3cm (with some species exempt)	-
Seine	≥ 2.5-≥ 7.6cm depending on size, type of net, location, and boat tonnage	-	>1cm (Anchovies)	>3cm >3.5cm (for tuna purse seine)	-
Gillnet	> 2.5-10cm depending on size, type of net, location, and boat tonnage	<25.4cm	2.8-12cm (species dependent)	-	9-13.7cm for drift gillnets, dependent on location and species
Trawl	≥ 2.5-≥ 5cm depending on size, type of net, location, and boat tonnage	≥ 3.8cm	Fish trawl: (<60cv) ≥ 2.8cm (60-150) ≥ 3.4cm (>150) ≥ 4cm Shrimp trawl: (<33Hp) ≥ 2cm (>33Hp) ≥ 3cm	-	4-5.4cm (location dependent).

Annex 2. Species and habitat protection measures which show commonality across the laws and policies of the five countries. (Findings are summarised and not an exact copy of wording from original law and policy documents).

	Indonesia	Malaysia	Vietnam	Philippines	China
Sea turtles	All species are protected.	All species are protected.	Four marine turtle species are protected.	All species listed on CITES are protected.	All species are protected.
Cetaceans	Cetaceans are protected.	Lists numerous whale, dolphin, and porpoise species that are protected.	Cetaceans are protected.	Lists numerous whale species and all dolphins as protected, including from bycatch.	Cetaceans are protected.
Coral reefs	Coral reefs are protected in marine parks and protected areas.	Coral reefs are protected in marine parks and protected areas.	Coral reefs are protected in marine parks and protected areas.	Destruction of coral reefs prohibited.	Damage to coral reefs prohibited.
Giant clams	Lists numerous species of giant clam that are protected.	Lists numerous species of giant clam that are protected.	There are no laws to protect giant clams yet.	Lists numerous species of giant clam that are protected.	Giant clams are protected in Hainan Province.
Whale shark and manta ray	Whale sharks and both species of manta ray are protected.	Whale sharks are protected.	No protection.	Lists several species of shark that are protected including the whale shark. Both species of manta ray are protected.	No protection.

Annex 3. Monitoring measures which show commonality across the laws and policies of the five countries. (Findings are summarised and not an exact copy of wording from original law and policy documents).

	Indonesia	Malaysia	Vietnam	Philippines	China
Logbook	Applied to fishing vessels above 5 GT.	Must declare the number of fish caught, the species, and the area of catch.	Individuals engaged in fishing activities must record and submit logbooks.	Each commercial fishing vessel shall keep a daily record of fish catch, spoilage, landing points, quantity, and the value of fish caught, offloaded for transhipment, sale or disposal.	Large and medium sized vessels shall keep logs of fishing to include time, location, fishing gear, mesh size, and species and sizes of catch.
Port monitoring	Review boat documents and fish catching tools, record fish catch results, area of catch, time.	The Department of Fisheries Malaysia is responsible for the collection of national fisheries statistics.	There is a landings enumerator programme.	Recording of catch by fisheries enumerators, inspection of catch, vessels, and gears. Vessels must declare catch upon landing in port.	Each reporting form is filled in at the lowest administrative level by enumerators.
VMS	Implemented since 2003.	Has used VMS since 1999 for vessels 70 GRT and above.	Plans to implement VMS for tuna fisheries in the future.	The VMS covers Philippine vessels in high seas pocket number 1 and fishing grounds under the jurisdiction of other RFMOs.	It is implemented, and vessels must report their location every 4 hours.

Annex 4. General principles which show commonality across the laws, policies and agreements of the five countries. (Findings are summarised and not an exact copy of wording from original law and policy documents).

	Indonesia	Malaysia	Vietnam	Philippines	China
MPA criteria	a) Ecological, covering biological diversity… b) social and cultural, covering supported level of society… c) Economic, covering the important value of fishery, recreation potential, and tourism... ++	The government of Malaysia has established several MPAs to enable overexploited marine resources to recover and to conserve coral reef ecosystems.	Follows IUCN's 10 criteria and eight supportive criteria of local importance; (1) wildness (2) biodiversity (3) bio-geographic importance (4) ecological importance (5) economic importance (6) social importance (7) scientific importance (8) national and global importance (9) feasibility (10) area (>10,000 hectares) (11) high conservation potential ++	Areas with biologically unique features to sustain human life as well as plant and animal life. Habitats of rare and endangered species. Secure for Filipino people the existence of native plants and animals.	Marine nature reserves shall be created when the need arises, and one of the following exists: (1) areas within which natural ecosystem has been damaged…but may be recovered (2) The areas with higher marine biodiversity… (3) Areas where marine natural remains of great scientific and cultural values are located ++
Aichi Biodiversity Targets to increase protected areas.	No targets set to increase MPA coverage.	By 2025 at least 10 per cent of coastal and marine areas are conserved through a system of protected areas and conservation measures.	Marine protected areas account for 0.24 per cent of the sea area.	By 2028 there will be a 20 per cent increase from 2015 levels in coverage of MPAs / sanctuaries across aquatic habitat.	By 2020 MPAs will exceed 5 per cent of the marine areas under China's jurisdiction.
Pollution	Marine pollution includes pollution from land, pollution from activities at sea, and air.	The discharge of oil or harmful substances into any part of Malaysian waters, any Malaysian coast, or Malaysia reef is prohibited.	Prohibited acts in marine operations include causing environmental pollution.	It is unlawful for any person to deposit or discharge any refuse matter: with refuse meaning garbage, waste… chemicals and substances other than sewage and industrial wastes that may cause pollution.	It is prohibited to shift dangerous wastes through internal waters or territorial seas of China, and all vessels must be equipped with adequate pollution prevention facilities and equipment.
Our Ocean Conference 2017	Achieve a reduction of 70% of its plastic debris by the end of 2025.	No commitments made.	Reduce the amount of marine-bound plastics and increase waste recycling efforts.	Reduce spot pollution sources by 50% as compared to 2017.++	Develop marine micro-plastic monitoring and preventing technology and eliminate plastic pollution in bays and estuaries. ++

Juveniles	There are restrictions on catch size for some species in some areas, including lobster and crab.	Commercial fishing vessels prohibited from fishing within five nautical miles from the shore as they are the nursery grounds of juvenile fish and shrimp.	Follows IUCN's 10 criteria and eight supportive criteria of local importance; (1) wildness (2) biodiversity (3) bio-geographic importance (4) ecological importance (5) economic importance (6) social importance (7) scientific importance (8) national and global importance (9) feasibility (10) area (>10,000 hectares) (11) high conservation potential ++	Areas with biologically unique features to sustain human life as well as plant and animal life. Habitats of rare and endangered species. Secure for Filipino people the existence of native plants and animals.	Marine nature reserves shall be created when the need arises, and one of the following exists: (1) areas within which natural ecosystem has been damaged…but may be recovered (2) The areas with higher marine biodiversity… (3) Areas where marine natural remains of great scientific and cultural values are located ++
Closed seasons & restrictions	In a fishing territory of East Indonesia, it is prohibited to conduct fishing in a breeding and spawning ground.	Plans to establish closed season for species.	Future plans to prohibit fishing in spawning periods.	Some closed seasons implemented at the municipal level.	Moratorium from May to August.

About the Author

Naomi Clark-Shen is from Singapore and has an MSc in Marine Science. She works as a consultant for a range of marine projects primarily focusing on fisheries. This research was part of a consultative position for the Centre for Humanitarian Dialogue, to explore mechanisms to promote cooperation in the South China Sea. She also manages a project looking at shark and ray imports to Singapore, collecting biological data to inform fisheries management.

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