ADVANCING MARINE ENVIRONMENTAL PROTECTION IN THE SOUTH CHINA SEA

Policy Report
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Executive Summary

The South China Sea (SCS) is an important water body that affects a wide range of human security aspects, including the economy, food, health, and environment of the countries and people around it. Despite its importance, however, the marine environment in the SCS is deteriorating at an alarming rate. There is currently no overarching regional environmental protection regime in the SCS. Cooperation in this area between ASEAN and China is therefore critical, since marine environmental problems are often transboundary. This policy report identifies four policy pathways that are key to the effective protection of the marine environment in the SCS: a regional mechanism, law enforcement, marine scientific research, and multi-stakeholder cooperation.

Introduction

Positive developments have been seen towards managing disputes in the South China Sea (SCS) as China and ASEAN member states agreed in August 2018 on a single text for negotiating the Code of Conduct in the SCS. While it is encouraging to see progress in maintaining peace and stability in the disputed waters, the non-traditional security (NTS) challenges associated with the SCS like marine environmental problems demand equally sufficient attention and efforts as they can also threaten the security of the people, littoral states, and the region as a whole.

The SCS has one of the world's most diverse marine ecosystems[1] and its rich biodiversity makes it crucial for many components of human security in the region, such as food security, health security, economic security, and environmental security.[2] However, the marine environment in the SCS is deteriorating at an alarming rate. Studies show that we are losing 30 per cent of seagrass, 16 per cent of mangroves, and 16 per cent of live coral cover in the SCS every 10 years.[3] The fishing resources are depleting rapidly, too. For instance, 10 out of 13 major fishing grounds in the Philippines are overfished.[4] Marine debris is another environmental threat in the SCS. In fact, five littoral states of the SCS, namely China, Indonesia, the Philippines, Thailand, and Vietnam dumped more than half of the plastic waste in the world's oceans.[5]

Apart from the claimants, non-littoral countries in the region are also affected by the deterioration of the marine environment in the SCS. Marine pollutants defy maritime territorial boundaries and sea currents can bring marine debris to every corner of the globe. Economic interdependence among states further amplifies the transboundary impacts of marine

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[1] Juinio-Menez, Marie Antonette. "Biophysical and Genetic Connectivity Considerations in Marine Biodiversity Conservation and Management in the South China Sea." *Journal of International Wildlife Law and Policy* 18 (2015): 110-119. Doi:10.1080/13880292.2015.1044803.

[2] For a detailed discussion on the linkage between the marine environment and human security, please see, for example, Cesar Trajano, Julius, Lina Gong, Margareth Sembiring and Rini Astuti. "Marine Environmental Protection in the South China Sea: Challenges and Prospects Part I." *NTS Insight* IN17-04 (2017). www.rsis.edu.sg/wp-content/uploads/2017/12/MEP-Insight-1_11-Dec-2017_final_TN.pdf.

[3] "South China Sea Countries Continue to Cooperate on Integrating Fisheries and Marine Ecosystem Management." SEAFDEC News, 1 November 2016, http://www.seafdec.org/south- china-sea-countries-cooperate-integrating-fisheries-marine-ecosystemmanagement/.

[4] Hongzhou, Zhang. "Fisheries Cooperation in the South China Sea: Evaluating the Options." *Marine Policy* 89 (2017): 67-76. Doi:10.1016/j.marpol.2017.12.014.

[5] "Plastic Wasteland: Asia's Ocean Pollution Crisis." *The Straits Times*, 5 June 2018. https://www.straitstimes.com/asia/se-asia/plastic-wasteland-asias-ocean-pollution-crisis.

environmental degradation. For countries like Singapore that rely on food imports, contamination of seafood and fish can be a potential threat to food safety and people's health security. It is therefore important to adopt an NTS lens as well to deal with the SCS issues, instead of excessively emphasising the political and military dimensions only. As the 2002 *Declaration on the Conduct of Parties in the South China Sea* already includes cooperation on marine environmental protection (MEP), it is imperative and timely to take advantage of the momentum generated by negotiations on the Code of Conduct to strengthen existing cooperative activities on MEP in the SCS and to explore opportunities to expand cooperation. However, the marine environment in the SCS is without an overarching environmental protection regime. Building on the findings from a series of two NTS Insights on MEP in the SCS, [6] this policy report identifies four policy pathways that are key to the effective protection of the marine environment in the SCS, namely a regional mechanism, law enforcement, marine scientific research, and multi-stakeholder cooperation.

[6] Cesar Trajano, Julius, Lina Gong, Margareth Sembiring and Rini Astuti. "Marine Environmental Protection in the South China Sea: Challenges and Prospects Part I." *NTS Insight* IN17-04 (2017). www.rsis.edu.sg/wp-content/uploads/2017/12/MEP-Insight-1_11-Dec- 2017_final_TN.pdf .

Development of Regional Mechanisms

Adopt a Strategic Action Plan for MEP

Building on the *Declaration for the Decade of Coastal and Marine Environmental Protection in the South China Sea (2017-2027)* signed at the 20th ASEAN-China Summit in the Philippines in 2017, the governments of ASEAN member states and China may consider adopting a strategic action plan on MEP to serve as a primary instrument for cooperation in managing the marine environment. It will outline actions that need to be taken to address environmental degradation.

There are two major causes behind the environmental degradation in the SCS – anthropogenic threats and climate change.[7] The adoption of a strategic action plan that focuses on a collective approach to addressing these two major causes is a common practice in many regional seas. There are 18 Regional Seas Conventions and Action Plans worldwide.[8] While these Action Plans are agreed upon by participating governments, they are not legally binding. ASEAN and China may find it more flexible to first pursue an Action Plan instead of a legally binding regional convention on MEP. Nonetheless, an Action Plan alone can help advance norms and principles for the preservation and protection of the marine environment in the SCS.

In formulating an action plan, ASEAN and China do not need to start from scratch. In fact, one of the outputs of the UN Environment Program (UNEP)/ Global Environment Facility (GEF) Project titled "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand" (2002-2008) was the *Strategic Action Programme for the South China Sea* (SAP). Completed in 2008, the SAP comprised a framework for strategic priority actions to conserve mangroves, coral reefs, sea grass meadows, coastal wetlands, fish and habitat, and fish stocks.[9] However, it has never been implemented due to persistent geopolitical tensions among the SCS states. Given the urgency to reverse environmental degradation in the SCS, ASEAN and China may consider revisiting this earlier action plan.

[7] Ibid.

[8] "Regional Seas Programmes and other UNEP Activities Relevant to Marine Biodiversity in Areas beyond National Jurisdiction." *United Nations Environment Programme* (2016). www.un.org/depts/los/biodiversity/prepcom_files/UNEP_and_BBNJ_PrepCom2.pdf.

[9] Hai Dang, Vu. "The GEF/UNEP Project "Reversing the Environmental Degradation *Trend in the South China Sea and Gulf of Thailand." In Marine Protected Areas Network in the South China Sea, edited by Russell Prime, David Dzizornu, Tony George Puthucherril, Nguyen Dang Thang, and Lu Ying, 150-156. Martinus Nijhoff Publishers, 2014.*

Establish a Regional Coordinating Unit

Inter-state coordination is key to successful implementation of the action plan. One model that can be considered by SCS states is the Mediterranean Action Plan's Regional Coordinating Unit, which serves as the nerve centre, facilitating coordination on MEP among Mediterranean states.[10] The regional coordinating unit will assist countries in developing their national ecological policies, integrating sound science into policymaking and environmental management, and fostering cost-effective strategic actions that enhance regional cooperation on MEP.

Law Enforcement Cooperation

Enhance Coast Guard Cooperation on MEP

Cooperation among the region's coast guards and maritime enforcement agencies should be enhanced, with increased focus on prevention of human activities that destroy the SCS's marine environment, such as discharge of untreated waste, illegal fishing, and poaching of endangered species. Coast guards and maritime enforcement bodies may want to consider exploring mechanisms for coordinated actions. While many publications have comprehensively discussed marine environmental law enforcement measures by local governments and communities,[11] the role of coast guards is indispensable in protecting marine environment in the high seas and disputed waters. Currently, there is no regional or joint coordination arrangement on MEP among the coast guards of littoral states although it has been proposed in several regional Track II meetings and workshops.

Therefore, the inclusion of a dialogue mechanism on MEP cooperation within the ASEAN Coast Guards Forum and engaging the China Coast Guard on this issue may be worth considering. ASEAN member states and China can study the North Pacific Coast Guard Forum, which comprises the coast guards of Japan, South Korea, Russia, China, Canada, and the United States[12], as a model of MEP cooperation among national coast guards. Established in 2000, the North Pacific Coast Guard Forum allows participating coast guards to regularly discuss maritime issues, including environmental challenges in the North Pacific. Its specific goals include curbing marine pollution, advancing

[10] "UNEP Regional Seas Programme." *United Nations Environment Programme*. Last modified 12 August 2015. www.biodiversitya-z.org/content/unep-regional-seas-programme

[11] Ahmad Kamil, Khairunnisa, Atakelty Hailu, Abbie Rogers, and Ram Pandit. "An assessment of marine protected areas as a marine management strategy in Southeast Asia: A literature review." *Ocean and Coastal Management* 145 (2017):72-81.

[12] "North Pacific Coast Guard Forum." *Canadian Coast Guard*. Last modified 5 September 2017. www.ccg-gcc.gc.ca/Home/NPCGF.

curbing marine pollution, advancing sustainable and equitable extraction of resources, fostering coordinated emergency responses, and combating illegal fishing operations.[13]

Two of the North Pacific Coast Guard Forum's main accomplishments are (i) table-top and on-water training exercises on conducting joint disaster response and combatting illegal fishing; and (ii) coordinated patrols to combat illegal fishing in the Pacific Ocean.[14] These objectives and accomplishments can be replicated in the SCS through a Coast Guard Forum in order to foster coordinated responses to MEP challenges even in disputed areas. The Forum can be built on a simple formula: all members voluntarily work equally toward solving shared marine environmental problems and achieving mutual interests. This formula is crucial in maintaining regional coast guard forums such as the North Pacific Coast Guard Forum, the North Atlantic Coast Guard Forum, the Arctic Coast Guard Forum, and the European Coast Guard Functions Forum. These are all non-binding, voluntary, independent, informal, and non-political platforms bringing together representatives of different national coast guards.[15] This mechanism may be considered in the SCS where MEP cooperation among national coast guards may be viewed as a non-political engagement and independent from the sensitive issue of overlapping sovereignty claims.

[13] "North Pacific Coast Guard Forum (NPCGF) 2017." *Canadian Coast Guard.* 5 September 2017. http://www.ccg-gcc.gc.ca/Home/NPCGF; Li Mingjiang. "China and Maritime Cooperation in East Asia: Recent developments and future prospects." *Journal of Contemporary China*, 19, 64 (2010): 291-310.

[14] "North Pacific Coast Guard Forum." *Canadian Coast Guard.* Last modified 5 September 2017. www.ccg-gcc.gc.ca/Home/NPCGF.

[15] "North Pacific Coast Guard Forum (NPCGF) 2017." *Canadian Coast Guard.* 5 September 2017. http://www.ccg-gcc.gc.ca/Home/NPCGF; "Joint Statement from the Arctic states Coast Guards." *Arctic Coast Guard Forum.* 3 March 2018. https://www.arcticcoastguardforum.com/news/joint-statement-arctic-states-coast-guards; "Coast Guard Functions." *European Coast Guard Functions Training Network*. 2016. http://www.ecgff-trainingportal.eu/pages/32-coast-guard-functions; "North Atlantic Coast Guard Forum." *Canadian Coast Guard*. 31 January 2015. http://www.ccg- gcc.gc.ca/NACGF.

Marine Scientific Research

Marine Scientific Research constitutes a precondition for effective environmental protection in the SCS since protection activities such as risk assessment, identification of priorities, and formulation of solutions rely on accurate scientific knowledge and data. Since many aspects of the marine environment and ecosystem are borderless, scientific collaboration – such as joint research expeditions, and sharing of information and data related to MEP like fish stocks and the level of various pollutants – among the countries concerned, is necessary. Despite recognising the importance of marine scientific research and the need for collaboration, difficulties remain in enhancing scientific collaboration among and between regional states. There have been a variety of scientific cooperative activities at bilateral and multilateral levels, such as the Joint Oceanographic Marine Scientific Research Expedition in the South China Sea (JOMSRE-SCS) from 1996 to 2007, and the Western Pacific Ocean System Project (WPOS) from 2014 to 2019.[16] However, distrust among littoral states caused by territorial disputes has hampered further collaboration in this regard.[17] In recent negotiations on the Code of Conduct, regional countries have discussed their duty to cooperate on marine scientific research.[18] Building on this momentum, it is worth exploring the following recommendations to foster mutual understanding and enhance scientific collaboration.

Identify shared scope of marine scientific research activities and adopt common procedures

Marine scientific research involves a range of activities for understanding the marine environment better. As some of the information collected can be used for purposes other than scientific research, marine scientific research activities can be controversial due to geopolitical and national security concerns. For instance, the Philippines banned foreign scientific research ships in February 2018, after an earlier approval for an application from a team of Chinese scientists led to domestic opposition and criticism.[19] While it is difficult to have a clearly defined scope for marine scientific research,[20] regional countries may consider finding

[16] du Rocher Sophie, Boisseau. "Scientific Cooperation in the South China Sea: A New Vector for China's Security Diplomacy in Southeast Asia?" *Asie Visions* 82 (2016).

[17] Bateman, Sam. "Building Cooperation for Managing the South China Sea Without Strategic Trust." *Asia & the Pacific Policy Studies* 4, No.2 (2017).

[18] Thayer, Carl. "A Closer Look at the ASEAN-China Single Draft South China Sea Code of Conduct." *The Diplomat*, 3 August 2018. http://www.thediplomat.com/2018/08/a-closer-look- at-the-asean-china-single-draft-south-china-sea-code-of-conduct/

[19] Mogato, Manuel. "Philippines' Duterte Reneges on China Deal, Bans Foreign Research Ships." *Reuters*, 6 February 2018. www.reuters.com/article/us-philippines-china-exploration/philippines-duterte-reneges-on-china-deal-bans-foreign-research-ships-idUSKBN1FQ0RX.

[20] There is no definition for marine scientific research even in the United Nations Convention on the Law of the Sea. See "Marine Scientific Research: A Revised Guide to the Implementation of the Relevant Provisions of the United Nations Convention." United Nations.2010.http://www.un.org/depts/los/doalos_publications/publicationstexts/msr_guide%202010_fi nal.pdf.

common grounds that identify some areas which are less sensitive for marine scientific research cooperation to start confidence-building, or specify activities that clearly do not belong to marine scientific research.[21] The diversity of marine scientific research activities and gaps in the regulatory frameworks at both national and regional levels pose challenges for regional scientific collaboration. Littoral states of the SCS vary in approach and procedure for regulating marine scientific research within their territorial waters and exclusive economic zones.[22] Therefore, states may consider jointly adopting common procedures and requirements for such activities in the SCS.

Harness diverse capacities and needs in marine scientific research of all participating countries to ensure joint ownership of data

Despite the concern over the geopolitical motivations of other countries, there is a necessity for regional countries to cooperate in marine scientific research. While there are outstanding marine scientists in all regional countries, they may lack necessary government support in some aspects such as equipment and research funding.[23] Meanwhile, in recent years, China has invested heavily in its capacities and capabilities in marine scientific research. Hence, the diverse expertise and capacities among littoral states create opportunities for collaboration. Given the concern over the dominance of individual countries based on their scientific prowess, it may be helpful for participating countries to agree in advance on issues related to the ownership of the data and knowledge produced by collaboration in marine scientific research.

Mobilisation of Multiple Actors

Given that the marine environment in the SCS relates to many aspects of the security of regional countries and their populations, effective MEP relies on the participation of multiple concerned stakeholders and actors, such as international agencies, local communities, NGOs, and the private sector. The multiplicity of actors brings in more resources for MEP and also gives rise to the need for coordinating mechanisms to facilitate smooth cooperation between actors.

[21] "Marine Scientific Research Authorization." *US Department of State.* Accessed 23 August 2018. www.state.gov/e/oes/ocns/opa/rvc/.

[22] Hong, Chang. "Marine Scientific Research Cooperation and Regulation in the South China Sea." Paper presented at 2016 Joint International Conference on Social Science and Environmental Science (SSES 2016) and International Conference on Food Science and Engineering (ICFSE 2016), Guangzhou, China, October 15-16, 2016.

[23] L. Batongbacal, Jay. "Chinese Marine Scientific Research as the Philippines Latest Ocean Governance Challenge." *IMLOSS Commentary, Manila: Institute for Maritime Affairs and Law of the Sea*, January 24, 2018. www.imlos.upd.edu.ph/chinese-marine-scientific-research-as- the-philippines-latest-ocean-governance-challenge/.

Reduce marine pollution through community-based and technological innovation

While the State promulgates laws and policies that strengthen MEP, many aspects of implementation rest on local communities and the business sector, so as to turn MEP into a long-term cause rather than a set of temporary measures. For example, several tourist beaches in Southeast Asia, such as Boracay in the Philippines and Maya Bay in Thailand, were temporarily closed in early 2018 for environmental reasons. This contingent measure should be complemented with sustainable changes in business practices and consumer behaviour, such as compliance with guidelines on sewage treatment and reduction in single-use plastics. Support and cooperation by local communities are essential in ensuring environmentally sustainable local tourism activities. Moreover, technological innovations by chemical companies that improve packaging materials as well as recycling also contribute to reducing marine debris and pollution.[24]

Create a platform for multi-stakeholder cooperation

Given the current geopolitical tensions and distrust between littoral states of the SCS, they may consider creating a platform for multi-actor cooperation to promote cooperative activities. As mentioned, they attempted to create a regional network and a platform for sharing of scientific data through the UNEP/GEF joint project in the SCS.[25] The project involved government scientists from focal ministries and specialised agencies, marine experts from universities, NGOs, and local community groups. It achieved some positive outcomes, particularly the increased collaboration among scientists of participating countries, but heightened tensions among littoral states prevented the momentum of scientific cooperation, which would have positively contributed to tangible regional policies on MEP in the SCS.[26] SCS states may consider revisiting the potential of this platform in managing tensions among them.

[24] Nitta, Yuji. "Marine Plastic Waste Crisis Fuels Quest for Better Packaging." *Nikkei Asian Review*, 24 August 2018. www.asia.nikkei.com/Spotlight/Environment/Marine-plastic-waste- crisis-fuels-quest-for-better-packaging.

[25] J. Paterson, Christopher, and John C. Pernetta, "Developing a Consensual Information Base for Identifying Priorities for Intervention in the South China Sea." *Ocean & Coastal Management* 85 (2013).

[26] Si Tuan, Vo, and John Pernetta, "The UNEP/GEF South China Sea Project: Lessons Learnt in Regional Cooperation." *Ocean and Coastal Management* 53 (2010): 589–596.

Conclusion

Given that the SCS is expansive and sea currents and marine life are mobile, advancing MEP requires cooperation and coordination among littoral states. Regional frameworks and mechanisms are needed to facilitate effective collaborative environmental governance in the SCS. Collaboration is vital for sustainable management of the marine environment with a multiple-stakeholder approach that engages national and local authorities, communities, the private sector, and other resource users. Having multiple actors from littoral states not only gives greater representation but also assists in identifying issues that might just exist at the peripheral vision of the state. Marine environmental issues, if not holistically addressed, could undermine both state security and human security in the region, affecting large populations and huge tracts of terrestrial and maritime areas.

Marine environmental protection, viewed as an NTS issue, might hold the key to building mutual trust and confidence among littoral states. Instead of further militarising the troubled waters, ASEAN and China can form a cooperative management framework in the SCS with marine environmental protection as one of its main pillars. As the marine environment in the SCS is quickly degrading, the urgency of accelerating marine conservation in the SCS cannot be more pronounced.

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