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Island-Building in the South China Sea: Legality and Limits

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Abstract

All the claimants in the South China Sea disputes have engaged in various degrees of island-building on many of the geographic features in the Spratly Islands. However, as noted by the Tribunal in the *South China Sea* Arbitration, none has been on the scale of Chinese island-building on the features which it occupies, which escalated after the Philippines initiated arbitral proceedings in 2013. While the most important aspect of the Award is that it clarified the extent of the respective maritime rights of China and the Philippines in the South China Sea, the Tribunal's rulings on the reclamation and island-building activities of China are equally significant. To this end, this paper will examine the findings of the Tribunal on the legality of China's island-building activities as well as legal constraints on such activities (if any). Last, it will explore the implications of these findings for the Southeast Asian claimants and island-building and fortification of the features that they occupy.

On 13 December 2016, satellite images were published showing a glistening array of defence equipment on concrete hexagonal platforms on seven features in the Spratly Islands occupied by China.[1] The defence equipment included naval, air, radar, and defensive facilities which would enable China to deploy military assets to the Spratly Islands at any time.[2] China's massive island-building project, which began after the Philippines' initiation of Annex VII arbitral proceedings against China in January 2013, created more than 12.8 million square metres of new land in less than three years.[3] The December 2016 report depicted with astonishing clarity the scale of the transformation that had taken place on what used to be barren, rocky outcrops previously used only to shelter fishermen. For some, it also revealed the full extent of China's ambitions in the South China Sea: complete military control.[4]

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1. "China's New Spratly Island Defences" CSIS Asia Maritime Transparency Initiative (13 December 2016), online: CSIS Asia Maritime Transparency Initiative <https://amti.csis.org/chinas-new-spratly-island-defenses/>.
2. "China's Big Three Near Completion" CSIS Asian Maritime Transparency Initiative (27 March 2017), online: CSIS Asia Maritime Transparency Initiative <https://amti.csis.org/chinas-big-three-near-completion/>.
3. *South China Sea Arbitration (Philippines v. China)* Award on the Merits [2016] Permanent Court of Arbitration, Case No 2013-19, 12 July 2016 [*Merits Award*] at para. 854.
4. See for example, Eleanor ROSS, "How and Why China is Building Islands in the South China Sea" *Newsweek Online* (29 March 2017), online: Newsweek Online <http://www.newsweek.com/china-south-china-sea-islands-build-military-territory-expand-575161>.

The occupation and construction activities[5] of the claimants[6] in the South China Sea disputes have always posed an irritant to regional relations. Taiwan was the first to occupy Itu Aba, the largest island in the Spratly Islands, at the end of World War II, but the rush to occupy other features began in earnest in the 1970s, after the first oil crisis in 1973, the end of the Vietnam War, and the beginning of the Third United Nations Conference on the Law of the Sea.[7] China came to the game relatively late and sent armed forces to six features after a brief clash with Vietnam in 1988.[8] It is estimated that Vietnam presently occupies twenty features, China nine features, the Philippines nine features, Malaysia four features, and Taiwan one feature.[9] Brunei is the only claimant that has not established a military presence on the features it claims.[10] While the 2002 Declaration on the Code of Conduct between China and the Association of Southeast Asian Nations [ASEAN] expressly prohibited the claimants from occupying new features,[11] it has not prevented the fortification of presently occupied features by the claimants, with the exception of Brunei. Thus, over the years, China, the Philippines, Malaysia, and Vietnam have undertaken some modest construction and land reclamation work on occupied features which has included the installation of buildings, wharves, helipads, and weather and communications instruments.[12] This changed in 2013 when China embarked on its island-building programme. As observed by the Tribunal in the *South China Sea* Arbitration, "[w]hatever the other States have done within the South China Sea, it pales in comparison to China's recent construction".[13]

The claimants' occupation and construction activities are but one layer of the highly complex and multifaceted disputes that exist in the South China Sea. These activities are intrinsically linked to the heart of the disputes between the claimants, namely, the competing sovereignty claims over the maritime features scattered throughout the South China Sea.[14] The sovereignty claims are based on a byzantine combination of historical discovery and usage, and cession by colonial powers, which the claimants

5. Occupation and construction activities will be used as a short form to describe the initial sending of military personnel to a feature and the subsequent establishment of man-made facilities on the said feature.

6. The claimants are China/Taiwan, Vietnam, the Philippines, Malaysia, and Brunei.

7. See generally, Zhiguo GAO, "From Conflict to Cooperation?" (1994) 25 Ocean Development and International Law 345 at 346–7.

8. *Ibid*., at 346.

9. See List of Occupied Features in "Memorial of the Philippines" of *South China Sea Arbitration (Philippines v. China)* [2014] Permanent Court of Arbitration Case No 2013-19, 30 March 2014, Volume IV at Annex 97.

10. Gao, *supra* note 7 at 346. Brunei's sovereignty claim is not clear but it appears to claim two features in the Spratly Islands—Louisa Reef and Riflemen Bank. See J. Ashley ROACH, "Malaysia and Brunei: An Analysis of their Claims in the South China Sea", CNA Occasional Paper, August 2014 at 15.

11. *2002 ASEAN Declaration on the Conduct of Parties in the South China Sea*, Phnom Penh, Cambodia, 4 November 2002.

12. *Merits Award*, *supra* note 3 at para. 977.

13. *Ibid*., at para.1178.

14. There are four groups of features subject to competing sovereignty claims: The Paracel Islands (China/Taiwan and Vietnam); the Pratas Islands (China/Taiwan); Scarborough Shoal (China/Taiwan and the Philippines); and the Spratly Islands (China/Taiwan, the Philippines, Vietnam, Malaysia, and Brunei).

have attempted to strengthen through effective occupation.[15] The second aspect of the disputes relates to maritime entitlement in the South China Sea, an issue governed by the 1982 United Nations Convention on the Law of the Sea [UNCLOS].[16] There has been considerable uncertainty as to the status of the South China Sea features, namely, whether they are *islands* above water at high tide (Article 121(1)) or *low-tide elevations* submerged at high tide but above water at low tide (Article 13), and whether the islands are entitled to the full suite of maritime zones under UNCLOS or are rocks only entitled to a 12 nautical mile [M] territorial sea under Article 121.[17] Arguably, the occupation and construction activities can also be seen as an attempt by the claimants to change the status of features in order to generate maritime zones and gain access to resources in the South China Sea.

The primary objective of the *South China Sea* Arbitration was to challenge the second aspect of the disputes, i.e. China's claims to maritime entitlement in the South China Sea, including China's ambiguous claim to resources based on historic rights as reflected by the nine-dashed line map.[18] The Tribunal found that China had no legal entitlement to the resources in the South China Sea (beyond its own maritime zones) with the exception of a possible entitlement in the territorial sea of disputed islands.[19] The Tribunal's Award was a resounding victory for the Philippines, and for the Southeast Asian claimants, all of whom had been recipients of China's increasingly assertive behaviour in waters which fell within maritime claims made from their mainland.

Much attention has unsurprisingly focused on the vindication of the Philippines' maritime rights in the South China Sea. However, as this paper hopes to demonstrate, the Award also has ramifications for the occupation and construction activities of all claimants on features in the South China Sea. In this regard, Part I will examine the Tribunal's findings on low-tide elevations and islands, on the basis that the classification of a feature as an island or a low-tide elevation will impact the legality of occupation and construction activities on that feature. Part II will then proceed to examine the Tribunal's explicit and implicit rulings on the extent to which UNCLOS prohibits occupation and construction activities on features in the South China Sea, i.e. the legality of such activities. Part III will discuss the constraints that UNCLOS provisions on the marine environment place on occupation and construction activities.

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15. For a detailed discussion of the sovereignty disputes, see Christopher C. JOYNER, "The Spratly Islands Dispute: Rethinking the Interplay of Law, Diplomacy and Geopolitics in the South China Sea" (1998) 13 International Journal of Marine and Coastal Law 193.

16. *United Nations Convention on the Law of the Sea*, 10 December 1982, U.N.T.S 1833 (entered into force 16 November 1994) [*UNCLOS*].

17. Clive SCHOFIELD, "What's at Stake in the South China Sea? Geographical and Geopolitical Considerations" in Robert BECKMAN, Ian TOWNSEND-GAULT, Clive SCHOFIELD, Tara DAVENPORT, and Leonardo BERNARD, eds., *Beyond Territorial Disputes in the South China Sea: Legal Frameworks for the Joint Development of Hydrocarbon Resources* (Cheltenham: Edward Elgar, 2013), 11 at 20–2.

18. *Merits Award*, *supra* note 3 at paras. 7–9. For background on the nine-dashed line, see Ted L. MCDORMAN, "Rights and Jurisdiction over Resources in the South China Sea: UNCLOS and the 'Nine-Dash Line'" in S. JAYAKUMAR, Tommy KOH, and Robert BECKMAN, eds., *The South China Sea Disputes and Law of the Sea* (Cheltenham: Edward Elgar, 2014), at 144.

19. *Merits Award*, *supra* note 3 at paras. 202–78, 577–626.

I. THE TRIBUNAL'S FINDINGS ON LOW-TIDE ELEVATIONS AND ISLANDS

A. *UNCLOS Provisions on Low-Tide Elevations and Islands*

The principle that it is sovereignty over land which gives coastal states rights over the sea, aptly captured in the memorable phrase "land dominates the sea",[20] has been enshrined in UNCLOS by the principle that coastal states only have the right to claim from their "land" a 12 M territorial sea,[21] a 200 M Exclusive Economic Zone [EEZ],[22] and a continental shelf.[23] In the same vein, Article 121(1) provides that only an island defined as "a naturally formed area of land, surrounded by water, which is *above water* at high tide",[24] is entitled to maritime zones. The type of maritime zone an island is entitled to will depend on whether it is a "fully entitled island" under Article 121(2) and thus entitled to a territorial sea, EEZ, and continental shelf, or a "rock" incapable of sustaining human habitation or an economic life of its own under Article 121(3), in which case it is only entitled to a 12 M territorial sea. (For clarity, the use of the term "island" in this paper refers to a feature which is above water at high tide, following Article 121(1), and encompasses both fully entitled islands and rocks. It should be noted that the Tribunal uses the term "high-tide features".[25]) Conversely, a low-tide elevation, which is defined in Article 13 as "a naturally formed area of land which is surrounded by and above water at low tide but submerged at high tide" is not entitled to any maritime zones, although when a low-tide elevation is situated within the 12 M territorial sea, it can be used as a baseline for measuring the breadth of the territorial sea.[26] Low-tide elevations situated outside the territorial sea of a mainland or island has no territorial sea of their own.[27] This is another manifestation of the principle that "land dominates the sea" in that it is only features which are permanently above water at high tide and consequently terra firma that should be accorded maritime zones.[28]

B. *The Award*

There has been a great deal of uncertainty as to the number of features in the South China Sea. For example, it has been estimated that there are over "600 reefs, islets,

20. For a discussion on the history of this principle, see Bing Bing JIA, "The Principle of the Domination of the Land over the Sea: A Historical Perspective on the Adaptability of the Law of the Sea to New Challenges" (2014) 57 German Yearbook of International Law 1 at 1–31.
21. See *UNCLOS*, *supra* note 16, at Part II.
22. *Ibid.*, at Part V.
23. Coastal states are entitled to a continental shelf up to a distance of 200 M or beyond that, depending on whether the continental shelf meets certain geological and geomorphological requirements: see *UNCLOS*, *supra* note 16, at art. 76.
24. *Ibid.*, at art. 121(3).
25. See *Merits Award*, *supra* note 3 at para. 280.
26. *UNCLOS*, *supra* note 16 at art. 13(1).
27. *Ibid.*, at art. 13(2).
28. Dissenting Opinion of Judges Bedjaoui, Ranjeva, and Karoma, in the *Qatar/Bahrain* case (Merits) [2001] I.C.J. Rep. 40 at para. 200.

shoals and rocky protrusions" in the Spratly Islands,[29] although estimates have varied over the years.[30] This is compounded by a lack of clarity as to the status of the features, namely, whether they are *islands* above water at high tide, *low-tide elevations* below water at high tide, or fully submerged features. It warrants note that all the claimants have asserted sovereignty over either the entire group of features in the Spratly Islands or a certain number of features in the Spratly Islands, and their stated sovereignty claims appear to include both islands and low-tide elevations.[31]

The Tribunal was requested to determine whether ten features in the Spratly Islands, namely, Mischief Reef, Second Thomas Shoal, Subi Reef, Gaven Reef (North), Gaven Reef (South), McKennan Reef, Johnson Reef, Hughes Reef, Cuarteron Reef, Fiery Cross Reef, and one feature outside the Spratly Islands, Scarborough Shoal, were low-tide elevations within Article 13 of UNCLOS, or islands within Article 121(1) of UNCLOS.

The Tribunal, eschewing the satellite imagery provided by the Philippines and relying instead on nautical charts, records of surveys, and sailing directions,[32] found that six features were islands within Article 121(1). These are McKennan Reef, Gaven Reef (North), Johnson Reef, Cuarteron Reef, Fiery Cross Reef, and Scarborough Shoal. It found that Subi Reef, Gaven Reef (South), Hughes Reef, Mischief Reef, and Second Thomas Shoal were low-tide elevations.

The Philippines also asked the Tribunal to declare that those features classified as low-tide elevations are not capable of being subject to appropriation and do not generate an entitlement to a territorial sea, EEZ, or continental shelf. The Tribunal affirmed the ruling in *Nicaragua v. Colombia*[33] that low-tide elevations do not form part of the land territory of a state in a legal sense, and instead form part of the submerged landmass of the state and fall within the legal regimes for the territorial sea or continental shelf, as the case may be.[34] Low-tide elevations, as distinct from land territory, cannot be appropriated, although a coastal state will have sovereignty over low-tide elevations within its territorial sea since it has sovereignty over the territorial sea itself.[35] The Tribunal's findings on the territorial status of low-tide elevations are by no means a revolutionary development in international law. The non-territorial status of low-tide elevations was first addressed in the 2001 ICJ case of *Qatar v. Bahrain*[36] and subsequently in *Sovereignty over Pedra Branca, Middle Rocks and*

29. "Memorial of the Philippines" of *South China Sea Arbitration (Philippines v. China)* [2014] Permanent Court of Arbitration Case No. 2013-19, 30 March 2014, Volume IV, at para. 2.12.

30. Schofield notes that it has been suggested that there are 400 to 500 features, whereas others suggest a more modest range between 150–180: see Schofield, *supra* note 17 at 20–1.

31. For a more detailed discussion of this, see Tara DAVENPORT, "Legal Implications of the South China Sea Award for Maritime Southeast Asia" (2016) Australian Yearbook of International Law 65 at 68–9.

32. *Merits Award*, *supra* note 3 at para. 327.

33. *Territorial and Maritime Disputes (Nicaragua v. Colombia)* [2012] I.C.J Rep. 50.

34. *Merits Award*, *supra* note 3 at para. 309.

35. *Ibid*., at paras. 309, 1040.

36. *Case Concerning Maritime Delimitation and Territorial Questions between Qatar and Bahrain (Qatar v. Bahrain)* [2001] I.C.J. Rep. 40.

South Ledge[37] and *Nicaragua v. Colombia*. Thus, the South China Sea Tribunal had an extensive range of precedent to warrant its opinion that low-tide elevations could not be considered territory capable of appropriation.

II. LEGALITY OF OCCUPATION AND CONSTRUCTION ACTIVITIES

The Tribunal's factual determination on whether certain features are low-tide elevations or islands, and confirmation that low-tide elevations are not territory, have significant implications for the South China Sea disputes. In particular, whether a feature is classified as a *low-tide elevation* or an *island* is critical as it will determine the applicable legal regime governing that feature and consequently the legality of the occupation and construction activities on that feature. In this regard, it should be noted that "legality" refers to whether it is prohibited under UNCLOS. Thus, under UNCLOS, the legality of occupation and construction activities will depend on the status and location of that feature, i.e. whether the occupation and construction activities are taking place on (1) an island; (2) a low-tide elevation within 12 M of an island; (3) a low-tide elevation within the EEZ or continental shelf; or (4) a low-tide elevation in areas beyond national jurisdiction.

Before elaborating on this, two points should be borne in mind. First, the Tribunal only made factual determinations on the status of eleven features, not all of which are occupied by China. The status of the rest of the features has not been subject to a final and binding decision of a third-party body. However, much information has been submitted on these features in the course of the proceedings,[38] particularly in the form of an Expert Report by Professors Clive Schofield, J.R.V. Prescott, and Robert van de Poll (hereinafter referred to as the "Schofield Report") submitted by the Philippines. This will be relied upon for *illustrative purposes* only, with the caveat that not all the determinations made in the Schofield Report have been endorsed by the Tribunal.[39] Second, as will be explained below, while the Philippines asked for a determination on the status of eleven features, it specifically challenged Chinese occupation and construction activities on seven of these eleven features, four of which were found by the Tribunal to be islands (Johnson Reef, Cuarteron Reef, Fiery Cross Reef, and Gaven Reef (North)), and three of them to be low-tide elevations (Hughes Reef, Subi Reef, and Mischief Reef).

37. *Sovereignty over Pedra Branca / Pulau Batu Puteh, Middle Rocks and South Ledge (Malaysia/Singapore)* (Merits) [2008] I.C.J. Rep. 12 at paras. 295–9.

38. Because its jurisdiction depended on the absence of overlapping entitlements, the Tribunal also asked for further information on certain other features. See "Supplemental Written Submissions of the Philippines", *South China Sea Arbitration (Philippines v. China)* [2013] Permanent Court of Arbitration Case No. 2013-19, 16 March 2015, at 114–17.

39. The Philippines, relying on the expert reports of Professor Clive Schofield, Professor J.R.V. Prescott, and Professor Robert van de Poll argued that there were twenty-six islands, although the Schofield Report suggested that there were twenty-eight such islands: see Clive SCHOFIELD, J.R.V. PRESCOTT, and Robert VAN DE POLL, "An Appraisal of the Geographical Characteristics and Status of Certain Insular Features in the South China Sea" in "Supplemental Written Submissions of the Philippines", *South China Sea Arbitration (Philippines v. China)*, Permanent Court of Arbitration, Case No. 2013-19, 16 March 2015, at Annex 513 (hereinafter the "Schofield Report").

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A. *Occupation and Construction Activities on Islands*

According to the Schofield Report, there are twenty-eight islands in the Spratly Islands,[40] although other estimates suggest that there are as many as forty-eight features that rise above water at high tide.[41] The Tribunal determined that Scarborough Shoal, Gaven Reef (North), McKennan Reef, Johnson Reef, Cuarteron Reef, and Fiery Cross Reef are islands.

The Philippines did not challenge the lawfulness per se of China's occupation and construction activities on four disputed islands (Johnson Reef, Cuarteron Reef, Fiery Cross Reef, and Gaven Reef (North)), all of which are claimed by China, Taiwan, Vietnam, and the Philippines. They only requested a determination that activities on these islands were contrary to the marine environmental obligations in UNCLOS (see discussion below). As such, the Award did not, and indeed could not, address whether the actual occupation and construction activities of China on these islands are prohibited by UNCLOS. This is an issue not governed by UNCLOS, which has no explicit provisions setting out what activities states can undertake on disputed islands.[42] Presumably, this would be regulated by general principles of international law on the rights and obligations of states on disputed territory, which arguably are not entirely certain.[43] Occupation and subsequent activities on disputed territory are acts which are usually done in order to bolster claims of title. There has been no treaty or judicial decision which explicitly addresses whether there are any limits to the actions a state can take on disputed territory, especially if the initial occupation is effected in good faith.[44] For present purposes, it suffices to say that UNCLOS does not prohibit the activities of claimants on disputed islands (regardless of where the island is located) and only imposes limits on occupation and construction activities through its marine environment protection provisions, discussed in Part III below.[45]

B. *Occupation and Construction on Low-Tide Elevations Within the 12 M Territorial Sea of Disputed Islands*

The corollary of the non-territoriality of low-tide elevations is the principle, affirmed by the Tribunal, that low-tide elevations are part of the sea bed, and the applicable legal

40. Schofield Report, *supra* note 3, at 87.

41. *Ibid.*, at 23.

42. See Robert BECKMAN, "China's Island-Building in the South China Sea: Implications for Regional Security" CSCAP Regional Security Outlook 2017, at 40–2.

43. See generally Enrico MILANO and Irini PAPANICOLOPULU, "State Responsibility in Disputed Areas on Land and at Sea" (2011) 71 Heidelberg Journal of International Law 587 at 587–640, who try to extrapolate some general principles from various bodies of law, including state responsibility, *jus ad bellum* and *jus in bello* rules, as well as the obligation to make every effort to prevent the aggravation of the dispute and not hamper the final settlement.

44. For example, in the 2002 ICJ decision of Cameroon/Nigeria, where Nigeria had occupied parts of Cameroon's territory, the Court held that "… by the very fact of the present Judgment and of the evacuation of the Cameroonian territory occupied by Nigeria, the injury suffered by Cameroon by reason of the occupation of its territory will in all events have been sufficiently addressed. The Court will therefore not seek to ascertain whether and to what extent Nigeria's responsibility to Cameroon has been engaged as a result of that occupation." See *Land and Maritime Boundary between Cameroon and Nigeria,* Judgment of 10 October 2002, I.C.J. Rep. 2002 at para. 319.

45. The Award also found that China's construction activities on the seven features was a breach of its obligation under international law and UNCLOS not to aggravate a dispute during dispute resolution proceedings, but this obligation would presumably cease once the dispute resolution proceedings were over: see *Merits Award*, *supra* note 3 at paras. 1153–200.

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regime will now depend on in which maritime zone the low-tide elevation is located. Consequently, for low-tide elevations located within the 12 M territorial sea of disputed island, sovereignty over the low-tide elevations rests with the state by reason of the sovereignty it has over the 12 M territorial sea. These features are now part of disputed territorial seas of the disputed island. Thus, the Tribunal found that Hughes Reef, Gaven Reef (South), and Subi Reef, all of which are occupied by China, are low-tide elevations which are located within 12 M of a disputed island. The Schofield Report suggested that, in addition to these three features, there are nine low-tide elevations which are within 12 M of a disputed island.[46] Thus, sovereignty over these features would be determined by the state which is found to have sovereignty over that island.

China has occupied and constructed on two low-tide elevations which are within the territorial sea of a disputed island, namely Hughes Reef (within 12 M of McKennan Reef and Sin Cowe Island) and Subi Reef (within 12 M of Sandy Cay). As is the case with disputed islands discussed in Part II A, the Award does not address the occupation and construction activities on low-tide elevations in disputed territorial seas. This is because UNCLOS itself does not explicitly address the rights and obligations of states in competing territorial sea claims generated by a disputed high-tide feature. This is in contrast to overlapping EEZs and continental shelves which are governed by Articles 74(3) and 83(3) and which impose obligations of co-operation and mutual restraint.[47] Consequently, UNCLOS does not prohibit the activities of claimants on low-tide elevations within 12 M of disputed islands, and only imposes limits on occupation and construction activities through its marine environment protection provisions, discussed in Part III below.[48]

C. *Occupation and Construction on Low-Tide Elevations in the EEZ / Continental Shelf*

1. *Sovereign rights over low-tide elevations*

The Award confirms that, for low-tide elevations which are located within the EEZ / continental shelf and outside the 12 M territorial sea of a disputed island, the coastal state enjoys sovereign rights in accordance with those regimes. A coastal state has sovereign rights over its continental shelf for purposes of exploring it and exploiting its natural resources, and these rights are exclusive and inherent.[49] Similarly, in the EEZ, a coastal state has sovereign rights for the purpose of exploring and exploiting,

46. Schofield Report, *supra* note 39 at 88.

47. David ANDERSON and Youri VAN LOGCHEM, "Rights and Obligations in Areas of Overlapping Maritime Claims" in Jayakumar *et al.*, *supra* note 18, 192 at 222. Arts. 74(3) and 83(3), which oblige states to enter into provisional arrangements of a practical nature pending maritime delimitation, have been interpreted as imposing an obligation on states with overlapping EEZs and continental shelves to co-operate and exercise mutual restraint: see *Delimitation of the Maritime Boundary Between Guyana v. Suriname* (*Guyana v. Suriname*) (Award) 30 R.I.A.A. 1.

48. As discussed in note 45, the Award also found that China's construction activities on the seven features was a breach of its obligation under international law and UNCLOS not to aggravate a dispute during dispute resolution proceedings.

49. See *UNCLOS*, *supra* note 16 at art. 77.

conserving, and managing the natural resources, whether living or non-living, of the waters superjacent to the sea bed and its subsoil.[50] Accordingly, as the Tribunal found, the Philippines has sovereign rights over Mischief Reef and Second Thomas Shoal, which fall within its EEZ / continental shelf.[51]

The other claimants will only have undisputed sovereign rights over low-tide elevations that are in their continental shelf or EEZ and which are not located in the 12 M territorial sea of a disputed island. For both China and Vietnam, this could raise several issues. China has no continental shelf or EEZ in the vicinity of the Spratly Islands, and thus has no basis to assert rights over low-tide elevations found in the EEZ / continental shelf of other states (unless they are within 12 M of an island), even though, as mentioned above, its stated sovereignty claim appears to include all low-tide elevations. Similarly, for Vietnam, there are very few low-tide elevations on its 200 M continental shelf,[52] and the majority of low-tide elevations fall within the EEZ or continental shelf of the Philippines and Malaysia, even though its stated sovereignty claim also includes these low-tide elevations. Vietnam and China can no longer claim sovereignty over these low-tide elevations. This has consequences for the occupation and construction activities of Vietnam and China which will be discussed below.

2. *Occupation and construction activities on low-tide elevations within the EEZ / continental shelf*

The only low-tide elevation which China has constructed on, which is not within 12 M of a disputed island and which is located within 200 M of the Philippines' EEZ / continental shelf, is Mischief Reef, which the Tribunal found was subject to the sovereign rights of the Philippines. The Tribunal had earlier noted that "[a]s a matter of law, human modification cannot change the seabed into a low-tide elevation or a low-tide elevation into an island", and "a low-tide elevation will remain a low-tide elevation under the Convention, regardless of the scale of the island installation built atop it".[53]

Unlike the territorial sea regime, the EEZ and continental shelf regime have a specific regime governing the construction of artificial islands, installations, and structures. Within the EEZ and continental shelf, the coastal state has jurisdiction as provided for in UNCLOS with regard to the establishment and use of artificial islands, installations, and structures. Articles 60 and 80 elaborate on this jurisdiction by stating that the coastal state has the exclusive right to construct and regulate the construction, operation, and use of: (1) artificial islands; (2) installations and structures for the purposes provided for in Article 56 (resource exploitation) and other economic purposes; and (3) installations and structures which may interfere with the exercise of the rights of the coastal state in that zone. Article 60(8) of UNCLOS also provides that artificial islands and installations do not possess the status of islands and have no territorial sea of their own.

50. *Ibid.*, at art. 56.

51. *Merits Award*, *supra* note 3 at paras. 697–701.

52. The Schofield Report states that Ladd Reef is a low-tide elevation: see Schofield Report, *supra* note 39 at 88. Ladd Reef appears to be the only low-tide elevation which falls within Vietnam's 200 M continental shelf and not within 12 M of a disputed high-tide feature.

53. *Merits Award*, *supra* note 3 at para. 305.

UNCLOS does not define artificial islands, installations, or structures, but they have been described as "man-made structure(s) in the territorial sea, exclusive economic zone or on the continental shelf usually for the exploration and exploitation of marine resources … and may also be built for other purposes such as marine scientific research, tide observations etc".[54]

With regard to China's construction on Mischief Reef, the Tribunal considered the initial structures on Mischief Reef from 1995 onwards constituted installations or structures constructed for economic purposes, as the original purpose of the structures was to provide shelter for fishermen, and this also had the potential to interfere with the exercise of the rights of the Philippines in its EEZ. However, it noted that China's activities at Mischief Reef evolved into the creation of an artificial island, in that it turned what was originally a reef platform that submerged at high tide into an island that is permanently exposed. Such an artificial island can only be constructed with the permission of the Philippines, which was not given.[55] Article 60:

> … endows the coastal State—which in this case is necessarily the Philippines—with exclusive decision-making and regulatory power over the construction and operation of artificial islands, and of installations and structures covered by Article 60(1) on Mischief Reef. Within its exclusive economic zone and continental shelf, only the Philippines or another authorized State, may construct or operate such artificial islands, installations or structures.[56]

Accordingly, to the extent that any of the claimants have occupied and constructed artificial islands, installations, and structures on low-tide elevations which are found in other states' EEZs and continental shelves (and *not within* 12 M of disputed islands), this could be in breach of Articles 60 and 80 of the Convention, depending on the nature of the construction on the low-tide elevation. If one of the claimants has built an *artificial island* on a low-tide elevation, this would be contrary to Article 60, which gives the coastal state the exclusive right to regulate the construction, operation, and use of artificial islands, regardless of their purpose. If one of the claimants has constructed *installations* or *structures* for the exploration and exploitation of resources, or which could interfere with the exercise of the coastal state's rights in the EEZ / continental shelf (which arguably gives a large measure of discretion to the coastal state), this would also be a breach of Articles 60 and 80. This issue is particularly relevant for Vietnam, which appears to have occupied a few features that have been characterized as low-tide elevations by the Schofield Report and which are found in the EEZ of other states, for example, Allison Reef, Cornwallis South Reef, and Pigeon Reef.[57] Such construction would appear to be prima facie contrary to UNCLOS and the Award.

54. See "Consolidated Glossary of Technical Terms used in the LOS Convention prepared by the Technical Aspects of the Law of the Sea Working Group of the International Hydrographic Organization", reprinted in UN Office for Ocean Affairs and the Law of the Sea, "The Law of the Sea: Baselines: An Examination of the Relevant Provisions of the United Nations Convention on the Law of the Sea", Appendix I at 41.

55. *Merits Award*, *supra* note 3 at paras. 1037–8.

56. *Ibid*., at para. 1035.

57. See List of Occupied Spratly Features, *supra* note 9; See Schofield Report, *supra* note 39 at 88.

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3. *An exception: military structures and installations?*

Arguably, this conclusion may be different if the installation or structure was not for purposes specified in Articles 60 or 80. The right to construct *military* installations is considered to be allowed in the continental shelf / EEZ, although not explicitly mentioned in UNCLOS.[58] For example, Kraska argues that "[f]oreign [s]tates, however, are not forbidden to construct installations and structures on a coastal State's continental shelf per se", and that "[f]oreign [s]tates may use the seabed for military installations and structures, and even artificial islands, as these purposes do not relate to exploring, exploiting, managing and conserving the natural resources". Kraska arguably overstates the right to construct military installations as extending to the right to conduct artificial islands for military purposes—a plain reading of Article 60(1) clearly provides that coastal states have exclusive authority over artificial islands regardless of their purpose. Moreover, the right to construct military installations is not unlimited. As observed by Kraska, "military activities that rise to the level of or … are of such scale that they do not have 'due regard' for the coastal state's rights to living and non-living resources of the EEZ and continental shelf are impermissible".[59]

The Tribunal did not directly address the permissibility of the construction of military installations in the EEZ / continental shelf of another state. It did, however, consider whether jurisdiction over the Philippines' claim concerning Mischief Reef was excluded due to China's exclusion of military activities from compulsory dispute settlement under Article 298. It found that China's construction activities at Mischief Reef could not be characterized as military in nature, because of China's repeated statements that its installations and island construction were for civilian purposes.[60] While they noted that China's initial structures on Mischief Reef were economic in purpose, which later evolved into the creation of an artificial island,[61] they did not elaborate on the purpose of the artificial island, and arguably did not need to as an artificial island is completely within the jurisdiction of a coastal state regardless of purpose.

Thus, Vietnam (and other claimants who have also constructed on low-tide elevations in the EEZ / continental shelf of other states) may be able to justify their actions on the basis that these installations and structures are military in nature, do not fall within Articles 60(1) and 80(1), and are prima facie consistent with UNCLOS. Unlike China, none of the Southeast Asian claimants have exercised their option under Article 298 to exclude military activities from compulsory dispute settlement, so this argument could theoretically be tested.

D. *Occupation and Construction on Low-Tide Elevations in Areas Beyond National Jurisdiction*

One of the consequences of the Tribunal's finding that the islands in the Spratlys are rocks entitled to 12 M territorial sea means that there is an area beyond national

58. D.P. O'CONNELL, *The International Law of the Sea*, Volume I, (Oxford: Oxford University Press, 1983) at 488.

59. James KRASKA, "Military Activities on the Continental Shelf" *Lawfare* (22 August 2016), online: Lawfare <https://www.lawfareblog.com/military-activities-continental-shelf>.

60. *Merits Award supra* note 3 at para. 1027.

61. *Ibid*., paras. 1036–7.

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jurisdiction which has not been encroached by converging claims to an EEZ from the Spratly Islands. This is considered the Area subject to the management of the International Seabed Authority under Part XI of UNCLOS, although there are currently no mineral exploration concessions there. The Tribunal did not explicitly address the Philippines' submission that low-tide elevations located in areas beyond national jurisdiction are part of the deep sea bed, subject to Part XI of UNCLOS, and cannot be subject to claims of sovereignty and sovereign rights.[62] Presumably it did not need to as there are no low-tide elevations that have been occupied by China in areas beyond national jurisdiction.

However, the implicit result of the Award's ruling that low-tide elevations form part of the sea bed and are governed by the applicable regime means low-tide elevations will form part of the deep sea bed, i.e. the Area. Further, all states have the freedom to construct artificial islands and other installations permitted under international law in the high seas,[63] subject to the obligation to give due regard to the rights of other states in the exercise of the freedom of the high seas, and due regard for activities in the Area.[64] Although it is far from clear what artificial islands and installations are "permitted under international law",[65] it would seem that construction on low-tide elevations in areas beyond national jurisdiction would not be contrary to UNCLOS (subject to marine environmental obligations discussed below).

Although technological limits may hinder the construction of artificial islands and other installations in such deep waters, the issue is not entirely moot. For example, Discovery Great Reef is located in areas beyond national jurisdiction and is described as a low-tide elevation by the Schofield Report and is reportedly occupied by Vietnam,[66] and this is prima facie allowed under UNCLOS.

III. LIMITS ON OCCUPATION AND CONSTRUCTION ACTIVITIES: OBLIGATIONS TO PROTECT THE MARINE ENVIRONMENT

The Award establishes important constraints on the ability of the claimants to carry out construction activities on the features which they occupy, regardless of whether the feature is an island or a low-tide elevation, through the marine environmental obligations in UNCLOS. The Tribunal found that the "obligations in Part XII apply to all States with respect to the marine environment in all maritime areas, both inside national jurisdiction of States and beyond it", and "questions of sovereignty are irrelevant to the application of Part XII of the Convention".[67] Based on the expert evidence, the Tribunal found that China's land reclamation and construction of artificial

62. "Final Transcript Day 2—Merits Hearing" in *South China Sea Arbitration (Philippines v. China)* [2015] Permanent Court of Arbitration Case No. 2013-19, 8 July 2015, at 22–3.

63. *UNCLOS*, *supra* note 16 at art. 87(1)(d).

64. *Ibid.*, at art. 87(2). Installations used to exploit mineral resources are under the authority of the ISA: see *UNCLOS*, *supra* note 16 at art. 147.

65. E.D. BROWN, *The International Law of the Sea* (New Hampshire: Dartmouth Publishing, 1994) at 317.

66. See List of Occupied Features, *supra* note 9; see Schofield Report, *supra* note 39 at 88.

67. *Merits Award*, *supra* note 3 at para. 940.

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islands and structures on four islands (Johnson Reef, Cuarteron Reef, Fiery Cross Reef, and Gaven Reef (North)), and three low-tide elevations (Hughes Reef, Subi Reef, and Mischief Reef) have and will cause harm to coral reefs, as well as "devastating and long-lasting damage to the marine environment".[68] Consequently, China had breached its obligations under UNCLOS in three areas.

First, Article 192, which merely provides that "States have the obligation to protect and preserve the marine environment", was interpreted by the Tribunal as a general obligation that extends both "to protection of the marine environment from future damage" and "preservation" in the sense of maintaining or improving its present condition.[69] Article 192 requires that states ensure that activities within their jurisdiction and control respect the environment of other states or areas beyond national control, and this translates into an obligation to prevent, or at least to mitigate, significant harm to the environment when pursuing large-scale construction activities.[70] China had breached its obligation under Article 192 to protect and preserve the marine environment and conducted dredging in such a way as to pollute the marine environment with sediment, as well as violated its duty under Article 194(5) to take necessary measures to protect and preserve rare or fragile ecosystems.[71]

Second, it found that China had breached its obligation to co-operate, as set out in Articles 123 (on co-operation in semi-enclosed sea areas) and 197 (co-operation on a global and regional basis), as it saw no convincing evidence of China attempting to co-operate or co-ordinate with other states bordering the South China Sea.[72]

Third, it had also breached its obligation to monitor and assess the impact to the marine environment under Articles 204 to 206, which place various obligations on states to, as far as practicable, monitor and assess the risk of pollution to the marine environment (Article 204); publish reports of such assessment efforts or provide such reports to the competent international organization (Article 205); and conduct Environmental Impact Assessments [EIAs] if there are reasonable grounds for believing that significant and harmful changes to the environment will be caused by its activities (Article 206). The Tribunal found that China "could not reasonably have held any belief other than that the construction may cause significant and harmful changes to the environment".[73] It noted that while China had asserted that its construction activities met environmental standards,[74] the reports which the Tribunal managed to locate "are far less comprehensive than EIAs reviewed by other international courts and tribunals".[75] While the Tribunal could not make a definitive finding that China had prepared an EIA, it was not necessary to do so as China failed in its obligation to

68. *Ibid*., at paras. 979, 981, 983.
69. *Ibid*., at para. 941.
70. *Ibid*.
71. *Ibid*., at para. 983.
72. *Ibid*., at para. 986.
73. *Ibid*., at para. 988.
74. *Ibid*., at paras. 979, 981, 983.
75. *Ibid*., at para. 990.

communicate it either by publishing the reports or providing them to the competent international organization as required under Article 205.[76]

This aspect of the Award is a timely reminder to all claimants that, when carrying out construction on features in the South China Sea, they are subject to the obligation to protect and preserve the marine environment of the South China Sea. That said, going forward, it is not entirely clear what this involves. Arguably, they would need to establish that they are taking all necessary mitigation measures to minimize damage to the marine environment. With regard to the duty to co-operate, while it found that China had breached its obligation to co-operate with states in the region, it did not elaborate on what that would entail. In previous cases, such as the *Mox Plant* case[77] and the *Land Reclamation* case,[78] the duty to co-operate was interpreted to include an obligation to exchange information and to notify before one state carried out an activity that could potentially harm the other state. Does this mean that a claimant has to notify all the littoral states that it is carrying out construction on features? It is not clear. With regard to the obligation to conduct an EIA, the Award suggests that a claimant is required to conduct an EIA before carrying out construction activities. However, the Tribunal did not address where such reports were to be published, what was to be reported, and where such reports should be submitted, given that there is at present no competent international organization to receive and distribute such reports. Thus, the immediate implications of this aspect of the Award for all the claimants, while laudable, are not straightforward, and deserve further study.

IV. CONCLUSION

While clarification of the legality and limits of the occupation and construction activities of the claimants was not the primary objective of the Philippines' initiation of arbitral proceedings in 2013, the Award has brought significant clarity to this issue (as it has admirably done with a whole gamut of other issues which have obfuscated the South China Sea disputes). First, it has made clear that UNCLOS does not prohibit what a state does on disputed islands and low-tide elevations within 12 M of a disputed island. Second, it has removed any doubt that the coastal state has sovereign rights over low-tide elevations in the EEZ / continental shelf, and that they cannot be appropriated by a third state. Occupation and construction activities on low-tide elevations in another state's EEZ / continental shelf are prima facie contrary to UNCLOS. Third, the Award draws no distinction between low-tide elevations and islands when it comes to the marine environmental obligations of claimants conducting construction activities on the features in the South China Sea. The Tribunal has, quite innovatively, used the marine environmental obligations in UNCLOS to constrain the activities of claimants on the features. This is a testament to the flexibility of UNCLOS and its marine

76. *Ibid.*, at para. 991.

77. *Mox Plant Case (Ireland v. United Kingdom)* (Provisional Measures) [2002] Order of 3 December 2001, 41 I.L.M 405.

78. *Land Reclamation Case by Singapore In and Around the Straits of Johor (Malaysia v. Singapore) (Provisional Measures)*, Order of 8 October 2003, International Tribunal for the Law of the Sea [ITLOS].

environmental provisions, which have not only been used to regulate states' activities in the water but also on the land.

At the same time, one could also argue that the Award's implications for the occupation and construction activities of the claimants demonstrate the inherent limits of international law and adjudication. As noted earlier, post-Award reports have suggested that China has continued to "militarize" features by installing anti-aircraft guns and other weapons systems.[79] While China has acknowledged that these structures are for defence purposes, they continue to claim they have nothing to do with military deployment.[80] Regardless of its stated purpose, China's island-building project represents a fundamental shift in the way China has viewed its territorial claims over the features. It could be said that the initial occupation of the features was motivated by the desire to bolster sovereignty claims and to claim access to resources. While China can no longer use the features to claim the full suite of maritime zones as a result of the Award, the features have become tools for China to project its military power and control in the South China Sea, and this has become the most serious "driver" of the South China Sea disputes.

Such activities, while potentially dangerous and escalatory, are not against international law per se (with the exception of the occupation and construction on Mischief Reef). There is very little legal recourse available to the other claimants to halt China's actions. Article 12 of Annex VII of UNCLOS provides that "[a]ny controversy which may arise between the parties to the dispute as regards the interpretation or *manner of implementation of the award* may be submitted by either party for decision to the arbitral tribunal which made the award" (emphasis added). This could perhaps give the Philippines an avenue to challenge China's continued fortification of Mischief Reef, but given the recent rapprochement between the Philippines and China,[81] and the fact that the Tribunal may not be able to do much to constrain China's behaviour in real terms, suggests that this option is unlikely. New proceedings could potentially be brought against China by other claimants on the breach of China's marine environmental obligations by its continued activities, but they are also arguably guilty of doing the same (admittedly to a lesser extent) and it is also likely to be futile. The only solution in this post-Award phase in the South China Sea disputes is diplomacy. Efforts must now focus on how to manage conflicts in the new landscape characterized by China's increasing military dominance so as to ensure that they do not escalate and threaten the fragile peace that now exists.

79. "China's New Spratly Island Defences" *Asia Maritime Transparency Initiative* (13 December 2016), online: Asia Maritime Transparency Initiative <https://amti.csis.org/chinas-new-spratly-island-defenses/>.

80. Ben BLAND, "Beijing Installs Defence Systems on South China Sea Islands" *Financial Times* (15 December 2017), online: Financial Times <https://www.ft.com/content/3575cd8c-c27d-11e6-81c2-f57d90f6741a>.

81. Liu ZHEN, "China, Philippines to Set Up Negotiation Mechanism to Resolve South China Sea Disputes" *South China Morning Post* (21 October 2016) online: South China Morning Post <http://www.scmp.com/news/china/diplomacy-defence/article/2038993/china-philippines-agree-set-negotiation-mechanism>.