

PCA Case N° 2013-19

IN THE MATTER OF THE SOUTH CHINA SEA ARBITRATION

- before -

**AN ARBITRAL TRIBUNAL CONSTITUTED UNDER ANNEX VII TO THE
1982 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA**

- between -

THE REPUBLIC OF THE PHILIPPINES

- and -

THE PEOPLE'S REPUBLIC OF CHINA

AWARD

Arbitral Tribunal:

Judge Thomas A. Mensah (Presiding Arbitrator)

Judge Jean-Pierre Cot

Judge Stanislaw Pawlak

Professor Alfred H.A. Soons

Judge Rüdiger Wolfrum

Registry:

Permanent Court of Arbitration

12 July 2016

975. In contrast to the situations of harvesting of endangered species and harmful construction activities, there is scant evidence in the case record about the use of explosives and cyanide over the last decade or Philippine complaints about its use. This suggests China may have taken measures to prevent such practices in the Spratly Islands. In any event, the Tribunal is not prepared to make a finding on the evidence available, under Submission No. 11 with respect to cyanide and explosives.

(d) China's Construction Activities on Seven Reefs in the Spratly Islands

i. China's Construction Activities and the Obligation to Protect and Preserve the Marine Environment

976. The Tribunal turns now to the environmental impact of China's extensive island-building project at seven reefs in the Spratly Islands, the nature and extent of which is described in paragraphs 852 to 890 above. In summary, the record shows that since the end of 2013, China has created on top of the coral reefs approximately 12.8 million square metres of land, from millions of tons of dredged coral, rocks and sand. There is no question that the artificial island-building program is part of an official Chinese policy and program implemented by organs of the Chinese State.

977. Before turning to the impact of China's recent island-building activities, the Tribunal recalls that during the preceding two decades, China, as well as the Philippines and other States in the region, undertook some more modest construction and land reclamation work on features in the Spratly Islands, which has included the installation of buildings, wharves, helipads, and weather and communications instruments.¹¹⁵³ The Tribunal notes Professor Carpenter's observation that most of the construction during this period was "limited to building discrete structures with a minimal footprint on the natural form and structure of existing coral reefs."¹¹⁵⁴ Nevertheless, he opined in his first report that the earlier generation of concrete structures (including those built by other States) reduced the coral reefs on which they were installed, displaced the organisms that inhabited them, and made the reefs' structural integrity vulnerable to wave action and

¹¹⁵³ See, e.g., Armed Forces of the Philippines, *Chronological Development of Artificial Structures on Features* (Annex 96); Armed Forces of the Philippines, *Chronology of Events in the Kalayaan Island Group* (2004) (Annex 53); Second Carpenter Report, pp. 6-8; Merits Hearing Tr. (Day 2), pp. 193-194; Note Verbale from the Department of Boundary and Ocean Affairs, Ministry of Foreign Affairs, People's Republic of China, to the Embassy of the Republic of the Philippines in Beijing, No. (2015) Bu Bian Zi No. 22 (30 March 2015) (Annex 686); J. Page & J.E. Barnes, "China Expands Island Construction in Dispute South China Sea," *Wall Street Journal* (19 February 2015) (Annex 748).

¹¹⁵⁴ Second Carpenter Report, p. 6.

storms.¹¹⁵⁵ Human presence on the features also entails the disposal of waste, and waste water, which promotes algal growth that can detrimentally affect fisheries.¹¹⁵⁶ The Ferse Report also acknowledged that while the Spratly Islands are an area of high diversity and among the least impacted reefs in the South China Sea, the “area is not pristine” and had already been affected by the impacts of human activity, such as overfishing and destructive fishing, construction activities and human habitation “for several decades prior to commencement of large-scale construction in 2013.”¹¹⁵⁷ The Ferse Report concluded however, that “[t]he scale of these previous impacts generally cannot be compared with the environmental harm caused by the construction activities, both in terms of spatial extent and duration.”¹¹⁵⁸

978. The conclusions of the Tribunal-appointed independent experts are unequivocal with respect to the more recent construction activities, which they say have “impacted reefs on a scale unprecedented in the region.”¹¹⁵⁹ They cite a 2016 study analysing satellite imagery that found up to 60 percent of the shallow reef habitat at the seven reefs has been directly destroyed.¹¹⁶⁰ Construction-related sedimentation and turbidity have affected large portions of the reefs beyond the immediate area of construction. The Ferse Report states:

The effects of these impacts on the reefs, together with altered hydrodynamics and released nutrients, are likely to have wide-ranging and long-lasting ecological consequences for the affected reefs and the wider ecosystem of the Spratly Islands, and possibly beyond. Reefs subjected to direct land reclamation have disappeared entirely. Reefs subjected to dredging in order to create landfill will have lost their complex structure that was built over centuries to millennia. This structure will take decades to centuries to recover. Reefs that did not experience dredging directly but were impacted by the associated sedimentation and nutrient release will likely have experienced severe coral mortality and recovery will take place more slowly than in natural settings, likely taking decades. The capacity for ongoing . . . carbonate production is severely diminished on several of the reefs, and their capacity to keep up with increasing sea level rise is impaired.¹¹⁶¹

979. The Tribunal accepts the conclusion in the Ferse Report that “China’s recent construction activities have and will cause environmental harm to coral reefs at Cuarteron Reef, Fiery Cross Reef, Gaven Reef, Johnson Reef, Hughes Reef, Mischief Reef, and Subi Reef; beyond the pre-existing damage to reefs that resulted from destructive fishing and the collection of corals and clams, storm damage, Crown-of-Thorns starfish, and the human presence on small garrisons

¹¹⁵⁵ First Carpenter Report, pp. 14, 16-17.

¹¹⁵⁶ Memorial, para. 6.110-6.111; First Carpenter Report, pp. 16-18.

¹¹⁵⁷ Ferse Report, p. 3.

¹¹⁵⁸ Ferse Report, p. 59.

¹¹⁵⁹ Ferse Report, p. 3.

¹¹⁶⁰ Ferse Report, p. 3; Mora Report.

¹¹⁶¹ Ferse Report, p. 3.

on the reefs.” The Ferse Report also arrives at the following conclusions as to the extent and likely duration of the harm.

- The harm caused by direct burial of reef habitat during the construction of artificial islands is near-permanent. The duration of harm to areas affected by dredging and dredging-related release of sediments and nutrients and the prospects and likely rates for rejuvenation differ depending on the environmental setting of each particular affected habitat area. We expect that the harm to areas affected by dredging for navigable channels and basins will likely be near-permanent and that the prospects for rejuvenation are low, particularly as long as maintenance dredging for the use of the artificial islands continues. Second, where major geomorphological structures have been removed through dredging, such as large coral ‘bommies’ (accumulations of corals that typically stand several metres above the substrate), there is little prospect for recovery on ecological time scales. These structures constitute accumulated reef growth on geological time scales of centuries to millennia. This statement applies to much of the lagoon and deeper parts of the reef flat where these features (bommies or patch reefs) have been described in the Spratly Islands. Harm to areas affected by smothering of sediments and increased turbidity, which includes most of the lagoons at Mischief and Subi Reefs and parts of the outer reef slopes of all seven reefs, is likely to endure for years to decades within the lagoons (due to limited water exchange), and for weeks to months on the outer reef slopes. Rejuvenation of these areas is possible (provided chronic stressors such as sedimentation are removed and recurrent stressors such as bleaching events are infrequent), but will take several decades, and it will likely take centuries for large massive colonies to regrow.
- China’s construction activities have led to reduced productivity and complexity of the affected reefs, with significant reductions of nursery habitat for a number of fish species. Therefore, not only will the reefs affected by construction have a greatly reduced capacity to sustain local fisheries but their ability to help replenish the fisheries of neighbouring jurisdictions will also be vastly diminished – at least threefold. The construction activities thus will have a broader impact on the marine ecosystem in and around the South China Sea and on fisheries resources. However, the magnitude of this impact will depend on the relative role of the seven affected reefs as critical habitat and source of larvae for fisheries resources compared to other reefs in the Spratly Islands, which is difficult to quantify due to a lack of empirical studies. On the basis of available information, cascading effects cannot be ruled out.¹¹⁶²

980. The conclusions in the Ferse Report largely confirm the conclusions reached in the First and Second Carpenter Reports. However, Dr. Ferse and his colleagues noted in Part IX of their report, that in some respects they consider Professor Carpenter may have overstated or understated particular aspects of the damage.¹¹⁶³

981. The Tribunal is conscious that the conclusions reached in the Ferse Report and those by Professor Carpenter and in other recent scientific studies,¹¹⁶⁴ are at odds with China’s stated position that its construction activities have followed a “high standard of environmental protection” and that the marine environment and ecosystem of the South China Sea “will not be

¹¹⁶² Ferse Report, pp. 59-60.

¹¹⁶³ Ferse Report, pp. 42-46.

¹¹⁶⁴ *See, e.g.*, McManus Report; Mora Report.

damaged.”¹¹⁶⁵ The Tribunal has accordingly sought out China’s position on the environmental impact of its construction activities, by reviewing statements of Chinese officials and scientists, by asking the Philippines and the Tribunal-appointed experts to locate and assess the claims by Chinese officials and scientists, and by directly requesting China to comment on a range of materials and questions about the alleged impact of the construction.

982. The Ferse Report noted that several ecological studies of the area by Chinese researchers actually emphasise the need for conservation of the seven reefs,¹¹⁶⁶ and “available satellite and aerial imagery provides little indication of effective mitigation measures.”¹¹⁶⁷ As to the general claim that the construction activity “does not damage the environment on the reefs,” the Ferse Report stated it “is contradicted by the facts.”¹¹⁶⁸ While the Ferse Report noted that the Chinese statements contained “accurate descriptions of the environmental conditions at the reefs,” the Chinese assessments of the nature and extent of impacts from construction were “largely in disagreement with the available information.”¹¹⁶⁹ The following are examples of specific claims made by Chinese scientists that were addressed in the Ferse Report:

- (a) *Replenishment*: Chinese scientists claimed that in the South China Sea “the nutrients and food organisms can be replenished constantly from surrounding waters.” The Ferse Report noted there is “very limited support” for the potential for replenishment from outside the Spratly Islands, in light of larval connectivity patterns within the South China Sea.¹¹⁷⁰
- (b) *Timing of works*: In relation to the claim by Chinese scientists that the construction was timed “reasonably, trying to avoid spawn periods of red snapper (mid-April), tuna (peak from June to August) and bonito (from March to August),” the Ferse Report analysed satellite and aerial imagery to conclude that land construction had indeed occurred in

¹¹⁶⁵ See, e.g., Permanent Mission of the People’s Republic of China to the United Nations, *Statement by Head of the Chinese Delegation at the 25th Meeting of States Parties to the UN Convention on the Law of the Sea* (12 June 2014) (Annex 617), Ministry of Foreign Affairs, People’s Republic of China, *Foreign Ministry Spokesperson Hua Chunying’s Regular Press Conference* (9 April 2015) (Annex 624), Ministry of Foreign Affairs, People’s Republic of China, *Foreign Ministry Spokesperson Hong Lei’s Regular Press Conference* (28 April 2015) (Annex 625), Note Verbale from the Embassy of the People’s Republic of China in Manila to the Department of Foreign Affairs, Republic of the Philippines, No. 14 (PG)-336 (28 October 2014) (Annex 680).

¹¹⁶⁶ Ferse Report, p. 48, fn. 279; see also SOA Report, pp. 1-2.

¹¹⁶⁷ Ferse Report, p. 48.

¹¹⁶⁸ Ferse Report, p. 48.

¹¹⁶⁹ Ferse Report, p. 2.

¹¹⁷⁰ SOA Report, p. 3; Ferse Report, p. 49.

months during those spawning periods.¹¹⁷¹ The Ferse Report noted that construction activity occurred during the suspected spawning time of reef corals.

- (c) *Water quality:* Chinese scientists claimed that China avoided “fine sands from going into reclamation areas to maintain the water quality of coral reef areas.” The Ferse Report stated that satellite and aerial imagery clearly shows water quality in the vicinity of each construction site was affected by increased sediment and turbidity from dredging.¹¹⁷²
- (d) *Restoration and Transplantation:* Chinese scientists claimed that “the restoration of coral reef communities could be realized should effective measures be taken” and that “coral reefs that have been severely damaged . . . can be restored initially in 5-10 years provided that effective measures are taken, and complex and complete ecosystems can be fully restored in 50-100 years.” They also suggested implementing measures like “transplantation” to better protect the coral reefs. The Ferse Report explained that restoration is not likely to succeed if stressors persist and if ecological connectivity and larval supply are disturbed. The Ferse Report noted the uncertainty of restoration science. It further noted “large parts of the seven reefs have been permanently destroyed by construction, and for the remaining areas, recovery is uncertain and, if it occurs, it will take more than a century until the large massive coral colonies have regrown.” Further, restorative activities are “extremely expensive” and have only ever been attempted on far smaller scales. Transplantation is unlikely to be suitable on the scale of the impacts from construction, as it could risk impacting other reefs in the region, and involves “prohibitive” labour and costs.¹¹⁷³
- (e) *Impact on reef structure:* Chinese scientists claimed that due to strong currents and waves, “the photosynthesis of corals” was left “largely unaffected” and because the sites are located in areas where coverage of coral reefs is low, “the overall community structure of coral reefs” and the “physical and chemical living environment of coral reefs” have not fundamentally changed. The Ferse Report pointed to the sediment plumes generated by dredging and notes they are “very likely to have altered the community structure of the affected coral reefs.” The Ferse Report recalled that the construction has permanently altered the hydrodynamics of the affected reefs, and elevated level of sediments are likely, “from months to years in those parts of the reefs that are

¹¹⁷¹ SOA Report, p. 2; Ferse Report, pp. 50-51, 53.

¹¹⁷² SOA Report, p. 2; Ferse Report, pp. 50-51.

¹¹⁷³ SOA Report, p. 3; Ferse Report, pp. 52-55.

well-flushed by open ocean waters, and from years to decades in areas with less flushing, such as the lagoons of Mischief and Subi Reef.”¹¹⁷⁴

- (f) *Impact on reef health:* Chinese scientists claimed that in light of the status of the reefs as “sub-healthy” both before and after the construction activities, it can be concluded that the “construction activities neither affected the health of the ecosystems of Nansha nor harmed the coral reef ecosystems.” The Ferse Report noted the lack of available information on post-construction monitoring but recalls that “the available evidence leaves little doubt that the coral reef ecosystems of the seven affected reefs have suffered significant and extensive harm as a result of construction activities.”¹¹⁷⁵
- (g) *Selection of sites containing dead coral:* The SOA and other Chinese scientists claim that the construction sites contained dead coral. The Ferse Report noted that even deep lagoon basins containing less live corals than other reef habitats constitute a vital habitat for molluscs, echinoderms and crustaceans. On the reefs lacking a deep lagoon (Cuarteron, Hughes, Gaven, and Johnson), material for land reclamation was gathered from the shallow reef habitat. In any event, sediment plumes affected both lagoon and outer reef slope habitats.
- (h) *Use of “nature simulation” method:* China embraces the “nature simulation” as its “comprehensive technical concept” in the Nansha reef expansion project. It claims the land reclamation area will “produce the ecological effects by going from desalination, solidification, efflorescence, to a green coral reef ecological environment.”¹¹⁷⁶ The Ferse Report observed that this statement overlooks the importance of biogenic sediment production. “Rather than simulating the natural process of island development, the construction process increases the erosion of the reefs by shifting the balance between carbonate accretion and erosion, and thus increases the risk of drowning the reef as sea levels continue to rise.”¹¹⁷⁷
- (i) *Recovery:* China’s SOA has claimed that “[g]ood results have been obtained and the ecological impact on the coral reefs is partial, temporary, controllable, and

¹¹⁷⁴ SOA Report, p. 3; Ferse Report, p. 53.

¹¹⁷⁵ SOA Report, p. 3; Ferse Report, pp. 50-51.

¹¹⁷⁶ SOA Statement, p. 1.

¹¹⁷⁷ Ferse Report, p. 56.

recoverable.”¹¹⁷⁸ The Ferse Report summed up its responses to this and previous statements as follows:

Ecological impacts from the construction activities affected large parts of the reefs and include permanent (for reclaimed reef flats and excavated channels) and long-lasting (for sediment resuspension in lagoons) effects. The extensive sediment plumes visible from aerial and satellite imagery that remained near the construction areas for several weeks to months render the amount of control over potential impacts doubtful. For large areas of reef affected by the construction activities, recovery is unlikely, or may take decades to centuries.¹¹⁷⁹

983. Based on the compelling evidence, expert reports, and critical assessment of Chinese claims described above, the Tribunal has no doubt that China’s artificial island-building activities on the seven reefs in the Spratly Islands have caused devastating and long-lasting damage to the marine environment. The Tribunal accordingly finds that through its construction activities, China has breached its obligation under Article 192 to protect and preserve the marine environment, has conducted dredging in such a way as to pollute the marine environment with sediment in breach of Article 194(1), and has violated its duty under Article 194(5) to take measures necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.

ii. China’s Construction Activities and the Obligation to Cooperate

984. The Tribunal further notes that China’s construction activities at the seven coral reefs have been met with protest from the Philippines and other neighbouring States.¹¹⁸⁰ Article 197 of the Convention requires States to cooperate on a regional basis to formulate standards and practices for the protection and preservation of the marine environment. In relation to semi-enclosed seas, the Convention further specifies in Article 123 that States shall endeavour to coordinate the implementation of their rights and duties with respect to the protection and preservation of the marine environment.

985. The importance of cooperation to marine protection and preservation has been recognised by the International Tribunal for the Law of the Sea on multiple occasions.¹¹⁸¹ The International Court

¹¹⁷⁸ SOA Statement, p. 2.

¹¹⁷⁹ Ferse Report, p. 57.

¹¹⁸⁰ See, e.g., Department of Foreign Affairs, Republic of the Philippines, “Statement on China’s Reclamation Activities and their Impact on the Region’s Marine Environment” (13 April 2015) (Annex 608); Joint Communiqué 48th ASEAN Foreign Ministers Meeting Kuala Lumpur, 4 August 2015, available at <www.asean.org/storage/images/2015/August/48th_amm/joint%20communique%20of%20the%2048th%20amm-final.pdf>.

¹¹⁸¹ *The MOX Plant Case (Ireland v. United Kingdom)*, Provisional Measures, Order of 3 December 2001, ITLOS Reports 2001, para. 82; *Case concerning Land Reclamation by Singapore in and around the Straits of Johor (Malaysia v. Singapore)*, Provisional Measures, Order of 8 October 2003, ITLOS Reports

of Justice, also recognised, in *Pulp Mills on the River Uruguay*, that “by co-operating . . . the States concerned can manage the risks of damage to the environment that might be created by the plans initiated by one or [the] other of them, so as to prevent the damage in question.”¹¹⁸²

986. With respect to China’s island-building program, the Tribunal has before it no convincing evidence of China attempting to cooperate or coordinate with the other States bordering the South China Sea. This lack of coordination is not unrelated to China’s lack of communication, discussed below.

iii. *China’s Construction Activities and the Obligation to Monitor and Assess*

987. Article 206 requires that when States have “reasonable grounds for believing that planned activities under their jurisdiction or control may cause significant and harmful changes to the marine environment” they shall as far as practicable assess the potential effects of such activities on the marine environment” and also “shall communicate reports of the results of such assessments.”
988. The Tribunal considers that given the scale and impact of the island-building activities described in this Chapter, China could not reasonably have held any belief other than that the construction “may cause significant and harmful changes to the marine environment.” Accordingly, China was required, “as far as practicable” to prepare an environmental impact assessment. It was also under an obligation to communicate the results of the assessment.
989. In *Construction of a Road (Nicaragua v. Costa Rica)*,¹¹⁸³ the International Court of Justice found that Costa Rica’s simple assertions as to the existence of a preliminary assessment did not equate to having “adduced any evidence that it actually carried out such a preliminary assessment.”¹¹⁸⁴ Despite China’s repeated assertions by officials at different levels, that it has

2003, para. 92; *Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC)*, *Advisory Opinion of 2 April 2015*, *ITLOS Reports 2015*, para. 140; see also Merits Hearing, Tr. (Day 4), pp. 40-41.

¹¹⁸² *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, *Judgment*, *ICJ Reports 2010*, p.14, p.49, para. 77; see also “Consequences Arising Out Of Acts Not Prohibited By International Law (Prevention of Transboundary Harm From Hazardous Activities),” in *Report of the International Law Commission on the work of its Fifty-third session (23 April-1 June and 2 July-10 August 2001)*, UN Doc. GAOR A/56/10 (2001).

¹¹⁸³ *Certain Activities Carried out by Nicaragua in the Border Area (Costa Rica v. Nicaragua: Construction of a Road in Costa Rica Along the San Juan River (Nicaragua v. Costa Rica)*, *Merits Judgment*, *ICJ Reports 2015*, para. 154.

¹¹⁸⁴ *Certain Activities Carried out by Nicaragua in the Border Area (Costa Rica v. Nicaragua: Construction of a Road in Costa Rica Along the San Juan River (Nicaragua v. Costa Rica)*, *Merits Judgment*, *ICJ Reports 2015*, para. 154.

undertaken thorough environmental studies, neither the Tribunal, the Tribunal-appointed experts, the Philippines, nor the Philippines' experts have been able to identify any report that would resemble an environmental impact assessment that meets the requirements of Article 206 of the Convention, or indeed under China's own Environmental Impact Assessment Law of 2002.¹¹⁸⁵

990. By China's own legislative standards, an EIA must be "objective, open and impartial, comprehensively consider impacts on various environmental factors and the ecosystem they form after the implementation of the plan or construction project, and thus provide scientific basis for the decision-making."¹¹⁸⁶ Additionally, the "state shall encourage all relevant units, experts and the public to participate in the EIA in proper ways."¹¹⁸⁷ With respect to construction projects, Chinese law requires an EIA to include, *inter alia*, analysis, projection and evaluation on the potential environmental impacts of the project, and suggestions on implementation of environmental monitoring.¹¹⁸⁸ The SOA Statement and the SOA Report which the Tribunal did manage to locate both fall short of these criteria, and are far less comprehensive than EIAs reviewed by other international courts and tribunals, or those filed in the foreign construction projects to which the SOA scientists referred in their report.¹¹⁸⁹
991. The Tribunal cannot make a definitive finding that China has prepared an environmental impact assessment, but nor can it definitely find that it has failed to do so in light of the repeated assertions by Chinese officials and scientists that China has undertaken thorough studies. Such a finding, however, is not necessary in order to find a breach of Article 206. To fulfil the obligations of Article 206, a State must not only prepare an EIA but also must communicate it. The Tribunal directly asked China for a copy of any EIA it had prepared; China did not provide one.¹¹⁹⁰ While acknowledging that China is not participating in the arbitration, China has

¹¹⁸⁵ People's Republic of China, *Law of the People's Republic of China on Evaluation of Environmental Effects* (28 October 2002) (Annex 615).

¹¹⁸⁶ People's Republic of China, *Law of the People's Republic of China on Evaluation of Environmental Effects* (28 October 2002) (Annex 615).

¹¹⁸⁷ People's Republic of China, *Law of the People's Republic of China on Evaluation of Environmental Effects* (28 October 2002) (Annex 615).

¹¹⁸⁸ People's Republic of China, *Law of the People's Republic of China on Evaluation of Environmental Effects* (28 October 2002), Article 17 (Annex 615).

¹¹⁸⁹ The Philippines' March 2016 Written Comments, p. 14; Merits Hearing Tr. (Day 4), p. 184, *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Merits, Counter-Memorial of Uruguay (20 July 2007), Vols. VI and VII; Commonwealth of Australia, Queensland Government, Department of State Development, *Final Environmental Impact Statement for the proposed Abbot Point Growth Gateway Project*, available at <www.statedevelopment.qld.gov.au/abbotpoint-eis> (Annex 892).

¹¹⁹⁰ Letter from the Tribunal to the Parties (5 February 2016); Letter from the Tribunal to the Parties 15 March 2016 (inviting China's comments).

nevertheless found occasions and means to communicate statements by its own officials, or by others writing in line with China's interests.¹¹⁹¹ Therefore had it wished to draw attention to the existence and content of an EIA, the Tribunal has no doubt it could have done so. In any event, the obligation to communicate is, by the terms of Article 205, to "competent international organizations, which should make them available to all States." Although China's representatives have assured the States parties to the Convention that its "construction activities followed a high standard of environmental protection," it has delivered no assessment in writing to that forum or any other international body as far as the Tribunal is aware.¹¹⁹² Accordingly, the Tribunal finds that China has not fulfilled its duties under Article 206 of the Convention.

(e) Conclusion

992. Based on the considerations outlined above, the Tribunal finds that China has, through its toleration and protection of, and failure to prevent Chinese fishing vessels engaging in harmful harvesting activities of endangered species at Scarborough Shoal, Second Thomas Shoal and other features in the Spratly Islands, breached Articles 192 and 194(5) of the Convention.
993. The Tribunal further finds that China has, through its island-building activities at Cuarteron Reef, Fiery Cross Reef, Gaven Reef (North), Johnson Reef, Hughes Reef, Subi Reef and Mischief Reef, breached Articles 192, 194(1), 194(5), 197, 123, and 206 of the Convention.

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¹¹⁹¹ See paragraph 127 above.

¹¹⁹² Permanent Mission of the People's Republic of China to the United Nations, *Statement by H.E. Ambassador Wang Min, Head of the Chinese Delegation at the 25th Meeting of States Parties to the UN Convention on the Law of the Sea* (12 June 2014) (Annex 617).

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E. OCCUPATION AND CONSTRUCTION ACTIVITIES ON MISCHIEF REEF (SUBMISSION NO. 12)

1. Introduction

994. In this Section, the Tribunal addresses the Parties’ dispute concerning China’s activities on Mischief Reef and its construction there of installations and artificial islands. This dispute is reflected in parts (a) and (c) of the Philippines’ Submission No. 12, which provides as follows:

- (12) China’s occupation of and construction activities on Mischief Reef
 - (a) violate the provisions of the Convention concerning artificial islands, installations and structures;
 - ...
 - (c) constitute unlawful acts of attempted appropriation in violation of the Convention;

995. To avoid duplication, the Tribunal has addressed the matters raised in the Philippines’ Submission No. 12(b)—asserting that China has violated its “duties to protect and preserve the marine environment”—in connection with Submission No. 11 (at paragraphs 815 to 993 above).

2. Factual Background

(a) China’s Initial Activities on Mischief Reef (1995 to 2013)

996. Chinese construction activities on Mischief Reef reportedly date back at least to January 1995, when fiberglass structures flying the Chinese flag were observed at four separate locations on the reef platform.¹¹⁹³ Fishermen from the Philippines reported the presence of “an estimated 1,000 uniformed men” aboard eleven Chinese vessels anchored there and in the structures on the reef.¹¹⁹⁴

997. On 6 February 1995, the Philippines submitted an Aide Memoire¹¹⁹⁵ to the Chinese Ambassador in Manila. According to Philippine records, China had denied¹¹⁹⁶ that it was building a base on the feature. The Philippines expressed “serious concern” over Chinese activities on Mischief Reef, including:

¹¹⁹³ Letter from Captain, Philippine Navy, to the Assistant Secretary for Asian and Pacific Affairs, Department of Foreign Affairs, Republic of the Philippines (13 November 2004) (Annex 54); Armed Forces of the Philippines, *Chronology of Events in the Kalayaan Island Group* (2004) (Annex 53).

¹¹⁹⁴ Armed Forces of the Philippines, *Chronology of Events in the Kalayaan Island Group* (2004) (Annex 53).

¹¹⁹⁵ Memorandum from the Undersecretary of Foreign Affairs of the Republic of the Philippines to the Ambassador of the People’s Republic of China in Manila (6 February 1995) (Annex 17).

¹¹⁹⁶ Armed Forces of the Philippines, *Chronology of Events in the Kalayaan Island Group* (2004) (Annex 53).

1. The presence of three large warships and five smaller vessels belonging to the People's Republic of China on or around Panganiban Reef, otherwise known as Mischief Reef;
2. The construction by the People's Republic of China of certain structures on Panganiban Reef; and
3. The detention of Filipino fishermen by military elements of the People's Republic of China deployed on and around Panganiban Reef.¹¹⁹⁷

The Philippines added that China's actions violated "the spirit of the 1992 ASEAN Declaration on the South China Sea" and requested the immediate removal of Chinese vessels from the reef.

998. On 10 March 1995, China's Vice Premier and Minister of Foreign Affairs reportedly described the structures on Mischief Reef as "typhoon shelters" constructed by Chinese fishing authorities "for the purpose of protecting the lives of Chinese fishermen and their production."¹¹⁹⁸ The Minister reiterated that the structures were civilian in nature and did "not pose threat to any country."¹¹⁹⁹

999. In the period from October 1998 to February 1999, China substantially enlarged two of the structures on Mischief Reef while removing the other two.¹²⁰⁰ On 15 October 1998, according to Philippine diplomatic archives, China informed the Philippine Ambassador in Beijing of "plans to renovate and reinforce the structures it [China] constructed on Mischief Reef back in 1995."¹²⁰¹ According to the Philippines' then-Undersecretary for Policy in the Department of Foreign Affairs, the Philippine Ambassador was informed by the Chinese Ministry of Foreign Affairs that:

Chinese local fishing authorities will undertake "soon" the renovation and reinforcement works which have become necessary because the structures have deteriorated over the years due to exposure to the elements. Furthermore, the Chinese have stated that they will give positive consideration to the use of the facilities by other countries, including the Philippines, after the renovation and reinforcement works have been completed and when the conditions are ripe.¹²⁰²

¹¹⁹⁷ Memorandum from the Undersecretary of Foreign Affairs of the Republic of the Philippines to the Ambassador of the People's Republic of China in Manila (6 February 1995) (Annex 17).

¹¹⁹⁸ Memorandum from the Ambassador of the Republic of the Philippines in Beijing to the Undersecretary of Foreign Affairs of the Republic of the Philippines (10 March 1995) (Annex 18).

¹¹⁹⁹ Memorandum from the Ambassador of the Republic of the Philippines in Beijing to the Undersecretary of Foreign Affairs of the Republic of the Philippines (10 March 1995) (Annex 18).

¹²⁰⁰ Letter from Captain, Philippine Navy, to the Assistant Secretary for Asian and Pacific Affairs, Department of Foreign Affairs, Republic of the Philippines (13 November 2004) (Annex 54).

¹²⁰¹ Memorandum from the Undersecretary for Policy, Department of Foreign Affairs, Republic of the Philippines, to all Philippine Embassies (11 November 1998) (Annex 35).

¹²⁰² Memorandum from the Undersecretary for Policy, Department of Foreign Affairs, Republic of the Philippines, to all Philippine Embassies (11 November 1998) (Annex 35).

1000. Philippine records indicate that, in addition to reinforcing two of the existing structures, China added a concrete platform supporting a three-storey building at each site.¹²⁰³ A report by the Armed Forces of the Philippines described the construction activities as involving “[a]bout 100-150 personnel working on site laying foundations for rectangular structure.”¹²⁰⁴
1001. On 5 November 1998, the Philippines sent China a Note Verbale in which it demanded from China that it:
- immediately cease and desist from doing further improvements over the illegal structures it has built in [Mischief] Reef and to dismantle any repair works, renovations, reinforcements, fortifications and/or improvements made therein.¹²⁰⁵
1002. On 9 November 1998, the Philippine Ambassador in Beijing met the Deputy Director General of the Asia Department of the Chinese Ministry of Foreign Affairs. At the meeting, the Deputy Director General characterised the activities as “the work of the local fishing authorities undertaking repair and renovation.”¹²⁰⁶ On 14 November 1998, China’s Minister of Foreign Affairs explained that “the structures are solely for shelter of fishermen The scale of work is small and there is no change in the civilian nature of the facilities.”¹²⁰⁷
1003. By February 1999, the two sites at Mischief Reef were equipped with a helipad, new communications equipment, and wharves.¹²⁰⁸ An oblique photograph taken by the Philippines and reproduced as Figure 30 on page 402 below depicts the smaller of China’s two structures following these improvements:

¹²⁰³ Letter from Captain, Philippine Navy, to the Assistant Secretary for Asian and Pacific Affairs, Department of Foreign Affairs, Republic of the Philippines (13 November 2004) (Annex 54).

¹²⁰⁴ Armed Forces of the Philippines, *Chronological Development of Artificial Structures on Features* (Annex 96).

¹²⁰⁵ Note Verbale from the Department of Foreign Affairs, Republic of the Philippines, to the Embassy of the People’s Republic of China in Manila, No. 983577 (5 November 1998) (Annex 185).

¹²⁰⁶ Memorandum from the Ambassador of the Republic of Philippines in Beijing to the Secretary of Foreign Affairs of the Republic of the Philippines, No. ZPE-77-98-S (9 November 1998) (Annex 34). *See also* Memorandum from the Ambassador of the Republic of Philippines in Beijing to the Secretary of Foreign Affairs of the Republic of the Philippines, No. ZPE-76-98-S (6 November 1998) (Annex 33).

¹²⁰⁷ Memorandum from the Secretary of Foreign Affairs of the Republic of the Philippines to the President of the Republic of the Philippines (14 November 1998) (Annex 36).

¹²⁰⁸ Letter from Captain, Philippine Navy, to the Assistant Secretary for Asian and Pacific Affairs, Department of Foreign Affairs, Republic of the Philippines (13 November 2004) (Annex 54).



*Figure 30: Aerial Photograph of Structure on Mischief Reef
Supplemental Written Submission, Vol. II, p. 126.*

(b) Island-Building Activities on Mischief Reef (Post-2013)

1004. Construction on Mischief Reef between 1999 and 2013 appears to have been relatively limited. China's intensive construction of artificial islands on seven coral reefs commenced in 2014, with construction on Mischief Reef resuming from January 2015.¹²⁰⁹ On 28 May 2015, for instance, the Philippine Secretary of National Defense, identified "around 32 dredger vessels, 32 cargo ships and three (3) ocean tugs" deployed at the reef.¹²¹⁰

1005. On 3 February 2015, in response to the commencement of substantial construction on Mischief Reef that year, the Philippines delivered to China a Note Verbale "to strongly protest China's land reclamation activities at Panganiban (Mischief) Reef."¹²¹¹ The Philippines went on to assert as follows:

Panganiban [Mischief] Reef is a low-tide elevation located in the exclusive economic zone of the Philippines and on its continental shelf. Pursuant to Articles 60 and 80 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS), the Philippines has the *exclusive* right to authorize the construction of artificial islands, installations or other

¹²⁰⁹ See Note Verbale from the Department of Foreign Affairs, Republic of the Philippines, to the Embassy of the People's Republic of China in Manila, No. 15-0359 (3 February 2015) (Annex 682).

¹²¹⁰ Letter from the Secretary of National Defense, Republic of the Philippines, to the Secretary of Foreign Affairs, Republic of the Philippines (22 June 2015) (Annex 610).

¹²¹¹ Note Verbale from the Department of Foreign Affairs, Republic of the Philippines, to the Embassy of the People's Republic of China in Manila, No. 15-0359 (3 February 2015) (Annex 682).

structures in the vicinity of Panganiban [Mischief] Reef. China's reclamation activities constitute a flagrant violation of these rights.¹²¹²

The Philippines concluded by requesting that China “desist from its reclamation activities.”¹²¹³

1006. On 12 February 2015, China replied that “China has indisputable sovereignty over the Nansha Islands and its adjacent waters. The development of any facility in the Nansha Islands falls within the scope of China’s sovereignty.”¹²¹⁴
1007. Aerial and satellite photography up to and over the course of 2015 details China’s construction of an artificial island on Mischief Reef and is reproduced at Figures 31 and 32 on page 405 below. The latter photograph from October 2015 shows an artificial island covering the entire northern half of the reef.
1008. Calculations presented by the Philippines estimate that China’s construction work has resulted in the creation of 5,580,000 square metres of new land on Mischief Reef as of November 2015.¹²¹⁵
1009. China’s activities on Mischief Reef are not limited to the creation of new land alone. Chinese construction on the feature has added fortified seawalls, temporary loading piers, cement plants, and a 250-metre-wide channel to allow transit into the lagoon by large vessels.¹²¹⁶ Additionally, one analysis has noted that an area of approximately 3,000 metres in length has “been cleared and flattened along the northern rim of the reef,”¹²¹⁷ a development that, according to media reports, may indicate the intention to build an airstrip.¹²¹⁸ A Chinese Foreign Ministry Spokesperson was questioned regarding the construction of an airstrip on Mischief Reef and did not deny this, noting instead that “[c]onstruction activities taken by the Chinese side on some

¹²¹² Note Verbale from the Department of Foreign Affairs, Republic of the Philippines, to the Embassy of the People’s Republic of China in Manila, No. 15-0359 (3 February 2015) (Annex 682) (emphasis in original).

¹²¹³ Note Verbale from the Department of Foreign Affairs, Republic of the Philippines, to the Embassy of the People’s Republic of China in Manila, No. 15-0359 (3 February 2015) (Annex 682).

¹²¹⁴ Note Verbale from the Embassy of the People’s Republic of China in Manila to the Department of Foreign Affairs, Republic of the Philippines, No. 15 (PG)-053 (12 February 2015) (Annex 683) (emphasis added).

¹²¹⁵ See Center for Strategic & International Studies, Asia Maritime Transparency Initiative, Mischief Reef Tracker, available at <amti.csis.org/mischief-reef-tracker/#> (accessed 1 November 2015) (Annex 782).

¹²¹⁶ “Third South China Sea airstrip being built, says expert, citing satellite photos,” *The Guardian* (15 September 2015) (Annex 770).

¹²¹⁷ G. Poling, “Spratly Airstrip Update: Is Mischief Reef Next?,” *Center for Strategic & International Studies* (16 September 2015) (Annex 835).

¹²¹⁸ “Third South China Sea Airstrip Being Built, Says Expert, Citing Satellite Photos,” *The Guardian* (15 September 2015) (Annex 770).

stationed islands and reefs in the Nansha Islands are completely lawful, reasonable and justified.”¹²¹⁹

3. The Philippines’ Position

1010. The Philippines submits that China’s activities at Mischief Reef violate Articles 60 and 80 of the Convention, relating to artificial islands, installations, and structures, and constitute unlawful acts of attempted appropriation under the Convention.

(a) Military Activities and the Tribunal’s Jurisdiction

1011. The Philippines submits that the Tribunal has jurisdiction to consider the matters raised in its Submission No. 12, and that the Tribunal’s jurisdiction is not constrained by the exception for military activities in Article 298(1)(b).¹²²⁰

1012. The Philippines notes that China did not invoke the military activities exception in its Position Paper of 7 December 2014.¹²²¹ In the Philippines’ view, the Tribunal should accept China’s own characterisation of its activities. According to the Philippines, “[t]he decision by a State to characterise its own actions as military activities is not one that is taken lightly. The political, legal and other consequences may extend well beyond Article 298, or indeed the Law of the Sea Convention as a whole.”¹²²² Far from China having invoked the exception, the Philippines notes that “China repeatedly told the Philippines that the facilities at Mischief Reef were being built for civilian use” and argues that any “fleeting intimation of a concurrent defence purpose falls far short of a characterisation of the activities as military.”¹²²³ The Philippines also recalls that China’s President Xi Jinping has stated that China does not intend to militarise the features.¹²²⁴

¹²¹⁹ Ministry of Foreign Affairs, People’s Republic of China, *Foreign Ministry Spokesperson Hong Lei’s Regular Press Conference* (14 September 2015), available at <www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2511_665403/t1296485.shtml>.

¹²²⁰ Jurisdictional Hearing Tr. (Day 3), pp. 48-53.

¹²²¹ Jurisdictional Hearing Tr. (Day 2), p. 73.

¹²²² Jurisdictional Hearing Tr. (Day 2), pp. 74-75.

¹²²³ Jurisdictional Hearing Tr. (Day 2), pp. 75-76.

¹²²⁴ Merits Hearing Tr. (Day 3), p. 88; “China not to pursue militarization of Nansha Islands in South China Sea: Xi,” *Xinhua* (25 September 2015), available at <news.xinhuanet.com/english/2015-09/26/c_134660930.htm>; United States, The White House, Office of the Press Secretary, “Press Release: Remarks by President Obama and President Xi of the People’s Republic of China in Joint Press Conference” (25 September 2015) (Annex 664).

mirrored in remarks by the Chinese Foreign Minister at an ASEAN Regional Forum on 6 August 2015:

At the end of June, China announced the completion of land reclamation. Next, we will build facilities mainly for public good purposes, including multi-functional lighthouse, search and rescue facilities for maritime emergencies, meteorological observatory station, maritime scientific and research center, as well as medical and first aid facilities.¹²⁵⁴

5. The Tribunal's Considerations

(a) The Tribunal's Jurisdiction

1024. In its Award on Jurisdiction, the Tribunal held that Submission No. 12 reflects a dispute concerning “China’s activities on Mischief Reef and their effects on the marine environment.”¹²⁵⁵ It determined that this is not a dispute concerning sovereignty or maritime boundary delimitation, nor is it barred from the Tribunal’s consideration by any requirement of Section 1 of Part XV.¹²⁵⁶ The Tribunal warned, however, that its jurisdiction to address the questions raised in Submission No. 12 “is dependent on the status of Mischief Reef as an ‘island’, ‘rock’, or ‘low-tide elevation’.”¹²⁵⁷ Had the Tribunal found—contrary to the premise of the Philippines’ Submission—that Mischief Reef is a fully entitled island or rock and thus constitutes land territory, it would necessarily lack jurisdiction to consider the lawfulness of China’s construction activities on Mischief Reef (at least in terms of the provisions of the Convention concerning artificial islands) or the appropriation of the feature.¹²⁵⁸ Accordingly, the Tribunal deferred taking any final decision with respect to its jurisdiction over this Submission.¹²⁵⁹

1025. The Tribunal has now found, however, that Mischief Reef is a low-tide elevation and not a rock or fully entitled island (see paragraphs 374 to 378 above) and, as such, generates no entitlement to maritime zones of its own. The Tribunal has also found that none of the high-tide features in the Spratly Islands is a fully entitled island for the purposes of Article 121 of the Convention

2015), available at <www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/t1273370.shtml>. The following week, China protested Philippine overflight over the reef. Note Verbale from the Embassy of the People’s Republic of China in Manila to the Department of Foreign Affairs, Republic of the Philippines, No. 15 (PG)-214 (28 June 2015) (Annex 689).

¹²⁵⁴ Ministry of Foreign Affairs, People’s Republic of China, *Wang Yi on the South China Sea Issue At the ASEAN Regional Forum* (6 August 2015) (Annex 634).

¹²⁵⁵ Award on Jurisdiction, para. 409.

¹²⁵⁶ Award on Jurisdiction, para. 409.

¹²⁵⁷ Award on Jurisdiction, para. 409.

¹²⁵⁸ Award on Jurisdiction, para. 409.

¹²⁵⁹ Award on Jurisdiction, para. 413(H).

(see paragraphs 473 to 647 above). From these conclusions, it follows that there exists no legal basis for any entitlement by China to maritime zones in the area of Mischief Reef and no situation of overlapping entitlements that would call for the application of Articles 15, 74, or 83 to delimit the overlap. Mischief Reef is necessarily a low-tide elevation located within the exclusive economic zone of the Philippines.

1026. In its Award on Jurisdiction, the Tribunal also reserved for the merits the question of whether Chinese activities at Mischief Reef constitute “military activities” within the scope of Article 298(1)(b) of the Convention.¹²⁶⁰ Article 298(1)(b) excludes disputes concerning military activities from compulsory dispute settlement under the Convention.
1027. In determining whether Chinese activities at Mischief Reef are military in nature, the Tribunal takes note of China’s repeated statements that its installations and island construction are intended to fulfil civilian purposes.¹²⁶¹ The Tribunal also takes note of the public statement of China’s President Xi Jinping that “[r]elevant construction activities that China are undertaking in the island of South – Nansha Islands do not target or impact any country, and China does not intend to pursue militarization.”¹²⁶²

¹²⁶⁰ Award on Jurisdiction, paras. 372, 396, 409.

¹²⁶¹ See Ministry of Foreign Affairs, People’s Republic of China, *Wang Yi on the South China Sea Issue At the ASEAN Regional Forum* (6 August 2015) (Annex 634); Ministry of Foreign Affairs, People’s Republic of China, *Foreign Ministry Spokesperson Lu Kang’s Remarks on Issues Relating to China’s Construction Activities on the Nansha Islands and Reefs* (16 June 2015), available at <www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/t1273370.shtml>; Ministry of Foreign Affairs, People’s Republic of China, *Foreign Ministry Spokesperson Hua Chunying’s Regular Press Conference* (9 April 2015) (Annex 624).

China has also made the same point frequently in its diplomatic communications and conversations with officials of the Philippines. As recorded by the Philippines, these include at least the following: Memorandum from the Ambassador of the Republic of Philippines in Beijing to the Secretary of Foreign Affairs of the Republic of the Philippines, No. ZPE-18-99-S (15 March 1999) (Annex 38); Memorandum from the Ambassador of the Republic of Philippines in Beijing to the Secretary of Foreign Affairs of the Republic of the Philippines, No. ZPE-76-98-S (6 November 1998) (Annex 33); Memorandum from the Ambassador of the Republic of the Philippines in Beijing to the Secretary of Foreign Affairs of the Republic of the Philippines, No. ZPE-231-95 (20 April 1995) (Annex 22); Government of the Republic of the Philippines, *Transcript of Proceedings: Republic of the Philippines–People’s Republic of China Bilateral Talks* (10 August 1995) (Annex 181); Government of the Republic of the Philippines and Government of the People’s Republic of China, *Philippine–China Bilateral Consultations: Summary of Proceedings* (20-21 March 1995) (Annex 175); Memorandum from the Ambassador of the Republic of the Philippines in Beijing to the Undersecretary of Foreign Affairs of the Republic of the Philippines (10 March 1995) (Annex 18).

¹²⁶² “China not to pursue militarization of Nansha Islands in South China Sea: Xi,” *Xinhua* (25 September 2015), available at <news.xinhuanet.com/english/2015-09/26/c_134660930.htm>; United States, The White House, Office of the Press Secretary, “Press Release: Remarks by President Obama and President Xi of the People’s Republic of China in Joint Press Conference” (25 September 2015) (Annex 664).

1028. The Tribunal will not deem activities to be military in nature when China itself has consistently resisted such classifications and affirmed the opposite at the highest level. Accordingly, the Tribunal accepts China's repeatedly affirmed position that civilian use comprises the primary (if not the only) motivation underlying the dramatic alterations on Mischief Reef. As civilian activity, the Tribunal notes that China's conduct falls outside the scope of Article 298(1)(b) and concludes that it has jurisdiction to consider the Philippines' Submission.

(b) China's Actions at Mischief Reef and the Philippines' Sovereign Rights

1029. As a preliminary matter, and as noted previously in this Award (see paragraph 696 above), the Tribunal is of the view that the Parties' dispute in relation to the Philippines' Submission No. 12 appears to stem from divergent understandings of their respective rights in the areas of the South China Sea within 200 nautical miles of the Philippines' baselines that are encompassed by the 'nine-dash line', including Mischief Reef. Each Party, in other words, has conducted its affairs from the premise that it, and not the other Party, has sovereign rights over Mischief Reef.

1030. However much these beliefs have been held in good faith, the Tribunal has found that Mischief Reef is a low-tide elevation that falls within an area where only the Philippines possesses possible entitlements to maritime zones under the Convention. Mischief Reef, therefore, can only constitute part of the exclusive economic zone and continental shelf of the Philippines; it does not lie within any entitlement that could be generated by any feature claimed by China (or another State).

i. Acts in Relation to the Installations and the Construction of Islands at Mischief Reef

1031. Having found that Mischief Reef lies within the exclusive economic zone and continental shelf of the Philippines, the Tribunal notes that the Convention is clear with respect to the law governing artificial islands, installations, and structures.

1032. Article 56(1)(b) of the Convention provides that, within the exclusive economic zone, the coastal State enjoys "jurisdiction as provided for in the relevant provisions of this Convention with regard to: (i) the establishment and use of artificial islands, installations and structures."

1033. Article 60 then elaborates on this provision. Paragraphs (1) and (2) provide as follows:

1. In the exclusive economic zone, the coastal State shall have the exclusive right to construct and to authorize and regulate the construction, operation and use of:
 - (a) artificial islands;

- (b) installations and structures for the purposes provided for in article 56 and other economic purposes;
 - (c) installations and structures which may interfere with the exercise of the rights of the coastal State in the zone.
2. The coastal State shall have exclusive jurisdiction over such artificial islands, installations and structures, including jurisdiction with regard to customs, fiscal, health, safety and immigration laws and regulations.

The remaining paragraphs of Article 60 address (a) the notice that must be given regarding the construction of artificial islands, installations, and structures; (b) the procedures with respect to safety zones; and (c) the obligation to remove abandoned or disused installations and structures. Article 60(8) also expressly provides that “[a]rtificial islands, installations and structures do not possess the status of islands. They have no territorial sea of their own, and their presence does not affect the delimitation of the territorial sea, the exclusive economic zone or the continental shelf.”

1034. With respect to the continental shelf, Article 80 provides that “Article 60 applies *mutatis mutandis* to artificial islands, installations and structures on the continental shelf.”

1035. These provisions speak for themselves. In combination, they endow 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 authorised State, may construct or operate such artificial islands, installations, or structures.

1036. The Tribunal considers that China’s initial structures on Mischief Reef from 1995 onwards constituted installations or structures for the purposes of Article 60(1). The Tribunal takes China at its word that the original purpose of the structures was to provide shelter for fishermen and concludes that this is an economic purpose. The Tribunal also notes that the original structures, which China declined to permit fishermen from the Philippines to use, also had the potential to interfere with the exercise by the Philippines of its rights in the exclusive economic zone. Accordingly, pursuant to Article 60 of the Convention, only the Philippines could construct or authorise such structures.

1037. China’s activities at Mischief Reef have since evolved into the creation of an artificial island. China has elevated what was originally a reef platform that submerged at high tide into an island that is permanently exposed. Such an island is undoubtedly “artificial” for the purposes of Article 60. It is equally clear that China has proceeded without receiving, or even seeking, the permission of the Philippines. Indeed, China’s conduct has taken place in the face of the

Philippines' protests. Article 60 is unequivocal in permitting only the coastal State to construct or authorise such artificial islands.

1038. In light of these provisions of the Convention, the Tribunal considers China's violation of its obligations to be manifest.

ii. Acts in Relation to Appropriation

1039. The Tribunal now turns to the Philippines' Submission that China, through its occupation and construction activities, has unlawfully attempted to appropriate Mischief Reef.

1040. The Tribunal recalls, first, that Mischief Reef is incapable of appropriation. As the Tribunal has already concluded at paragraphs 307 to 309 above, low-tide elevations "do not form part of the land territory of a State in the legal sense." Rather, such features form part of the submerged landmass of a State and, in the case of Mischief Reef, fall within the legal regime for the continental shelf. In consequence, low-tide elevations, as distinct from land territory, cannot be appropriated. As the Tribunal has now found, Mischief Reef is a low-tide elevation; it follows from this that it is incapable of appropriation, by occupation or otherwise.

1041. As a low-tide elevation within the Philippines' exclusive economic zone and continental shelf, the legal relevance of Mischief Reef is that it lies within an area in which sovereign rights are vested exclusively in the Philippines and where only the Philippines may construct or authorise artificial islands. The Tribunal has already held in relation to the Philippines' Submissions No. 8 and 9 that China's actions at Mischief Reef have unlawfully interfered with the Philippines' enjoyment of its sovereign rights.

1042. Having established that Mischief Reef is not capable of appropriation and addressed the effect of China's actions on the Philippines' sovereign rights, the Tribunal sees no need to address Submission No. 12(c).

(c) Conclusion

1043. Based on the considerations outlined above, the Tribunal finds that China has, through its construction of installations and artificial islands at Mischief Reef without the authorisation of the Philippines, breached Articles 60 and 80 of the Convention with respect to the Philippines' sovereign rights in its exclusive economic zone and continental shelf. The Tribunal further finds that, as a low-tide elevation, Mischief Reef is not capable of appropriation.

* * *