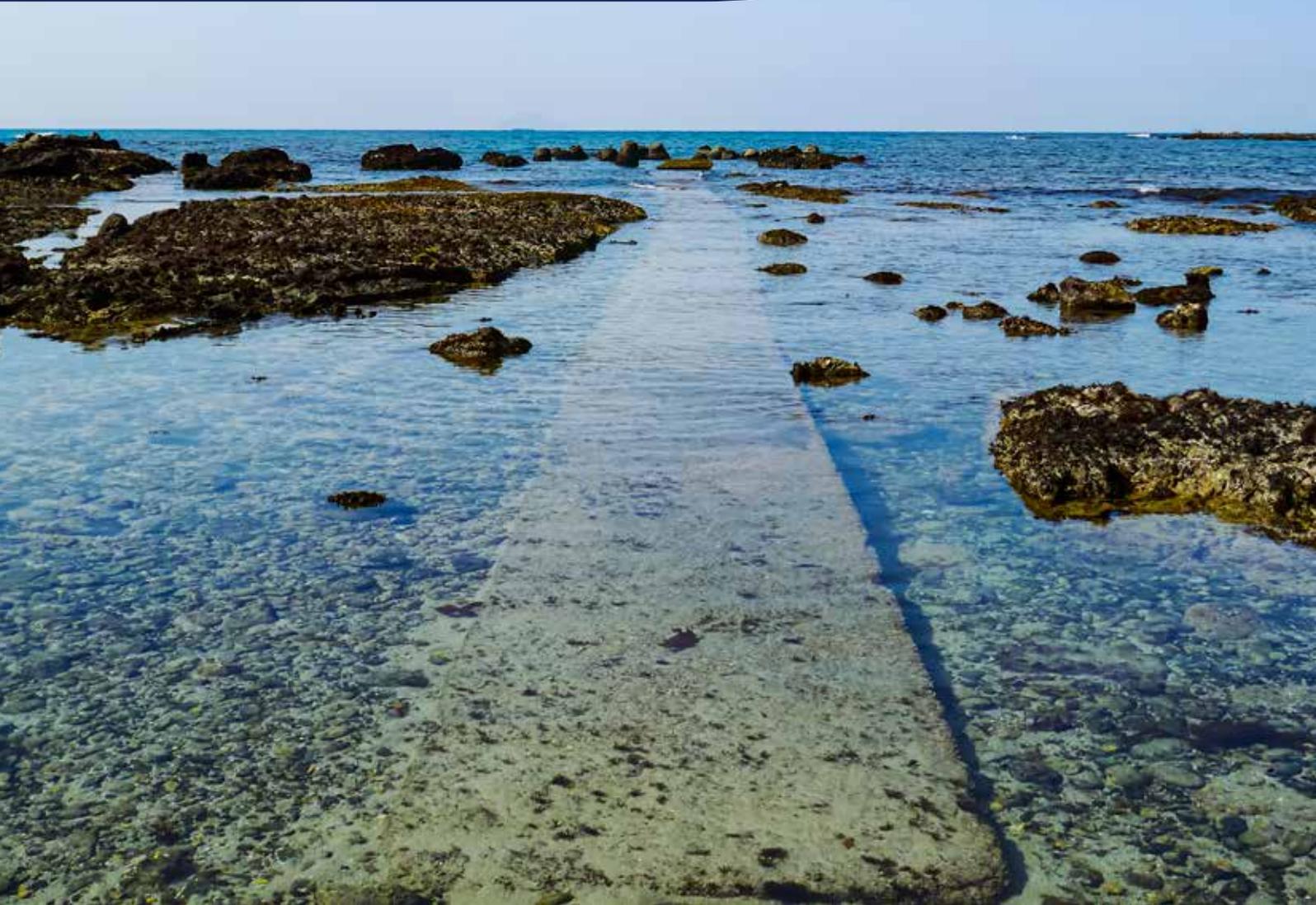


BLUE SECURITY

A MARITIME AFFAIRS SERIES

Sea Level Rise and Implications for Maritime Security
in Southeast Asia

Dr Tara Davenport and Maria Pia Benosa



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INTRODUCTION

While the meaning of maritime security is subject to different understandings, it undoubtedly includes an interstate dimension concerned with overlapping entitlement to maritime space.¹

Clarity, certainty and predictability in maritime entitlement and jurisdiction, established in accordance with the “constitution” for the oceans – the 1982 UN Convention on the Law of the Sea (UNCLOS) – is the foundation for a rule-based order at sea.² The lack of jurisdictional clarity can impede efficient utilisation of maritime resources, result in skirmishes between law enforcement or naval authorities of claimant states in disputed areas, and is viewed as a threat to national maritime security.³ It also poses impediments to effective national or regional action vis-à-vis traditional maritime security threats including piracy and armed robbery at sea, terrorism, illegal, unreported and unlicensed (IUU) fishing, and other maritime crime.⁴ Moreover, maritime disputes undermine inter- and extraregional relations and weaken any promise of collective action against ecosystem degradation and biodiversity loss on a global scale. Unsurprisingly, demarcation of maritime limits is considered “an essential precursor to the full resource potential of national maritime zones and the peaceful management of the oceans.”⁵

For Southeast Asian states (consisting of the ten member states of the Association of Southeast Asian Nations [ASEAN] and Timor-Leste, who is on track to be the 11th member),⁶ sovereignty disputes coupled with congested coastal geography, deeply indented gulfs, and coastal areas scattered with small offshore features have resulted in overlapping claims to maritime entitlement that have not arisen in more diffuse regions like the Southwest and Central Pacific Ocean.⁷ While Southeast Asia has been described as a “scene of very active and innovative ocean boundary diplomacy”⁸ and some level of maritime jurisdictional clarity has been attained, there remain pockets of maritime areas that are subject to overlapping claims. While the territorial and maritime disputes in the South China Sea are perceived as the most contentious (particularly due to the involvement of extraregional actors such as China and Taiwan), there are also undelimited maritime areas between Southeast Asian states themselves and between Southeast Asian states and extraregional states (such as India, Palau, China and Australia) outside the South China Sea.⁹ These underlying interstate maritime entitlement and delimitation disputes manifest differently with varying degrees of gravity, from diplomatic protests to skirmishes between naval and coast guard authorities, all of which have consequences for maritime security in Southeast Asia.¹⁰

Adding another potential layer of jurisdictional complexity is sea level rise (SLR) caused by ocean thermal expansion and ice sheet melt attributable to exponential increases in greenhouse gas (GHG) emissions. The most recent projection by the Intergovernmental Panel on Climate Change (IPCC)¹¹ states that it is *virtually certain* that global mean sea level rise will continue to rise over the 21st century; the likely global sea level rise by 2100 is 0.15 – 0.23 m under a low GHG emissions scenario, and 0.20 – 0.29 m under a very high GHG scenario.¹² While there are regional variations in SLR, Southeast Asia is one of the most vulnerable regions to SLR due to the concentration of activities along the region’s low-lying coastal areas, high population, and landmass.¹³ All Southeast Asian states are coastal states except for landlocked Laos, and two of these (the Philippines and Indonesia) are the world’s largest archipelagic states. Moreover, recent studies indicate that Southeast Asian coastal cities are sinking the fastest globally and this will amplify the impacts of SLR.¹⁴

SLR presents a whole gamut of destructive consequences including coastal erosion, storm surges, saltwater intrusion, loss of mangrove forests, the destruction of coastal facilities, displacement of populations, risks to marine ecosystems and concomitant impacts on living resources and food security, and most extreme, loss of territory.¹⁵ All of these consequences have implications for multiple aspects of maritime security.¹⁶ However, it is the alteration of the physical configuration of coasts and consequent effects on unilateral limits (baselines and outer limits of maritime zones) and maritime boundaries that has the most significant repercussions for maritime jurisdictional clarity in Southeast Asia. UNCLOS, negotiated before climate change became a serious global problem, does not explicitly mention climate change or sea level rise and with one exception, has no express rules on consequences to unilateral limits and maritime boundaries in the event of climate change-induced SLR.¹⁷ A central question is to what extent UNCLOS addresses the impact of SLR on unilateral maritime limits and maritime boundaries. Pacific Island states, particularly vulnerable to SLR and facing the reduction or complete loss of maritime entitlement, have been driving legal developments in this area, and have adopted a uniform and collective approach of *legally* preserving baselines, maritime zone entitlements, and boundaries despite the occurrence of SLR.¹⁸

Two international bodies of legal scholars and experts, the International Law Association (ILA) and International Law Commission (ILC), are also examining these issues in the broader context of SLR and international law, motivated in part by the risk that SLR poses to the certainty of unilateral limits and boundaries and consequent implications for international stability and security.¹⁹

To this end, this article will explore the potential implications of SLR for the maritime security of Southeast Asian states through the lens of SLR's impact on maritime jurisdictional clarity. The analysis is divided into three parts. Section 2 outlines current practices of Southeast Asian states on baselines, maritime zone outer limits, and maritime boundaries. Section 3 examines Southeast Asian states' approaches to SLR in the light of current discussions on its legal effect on baselines, maritime zones and maritime boundaries. Section 4 makes some preliminary observations on the implications of SLR for jurisdictional clarity (and consequently maritime security) in Southeast Asia. Section 5 concludes by making some suggestions on how Southeast Asian states can mitigate the impacts of SLR from a legal perspective and highlights certain challenges that they may face in doing so.

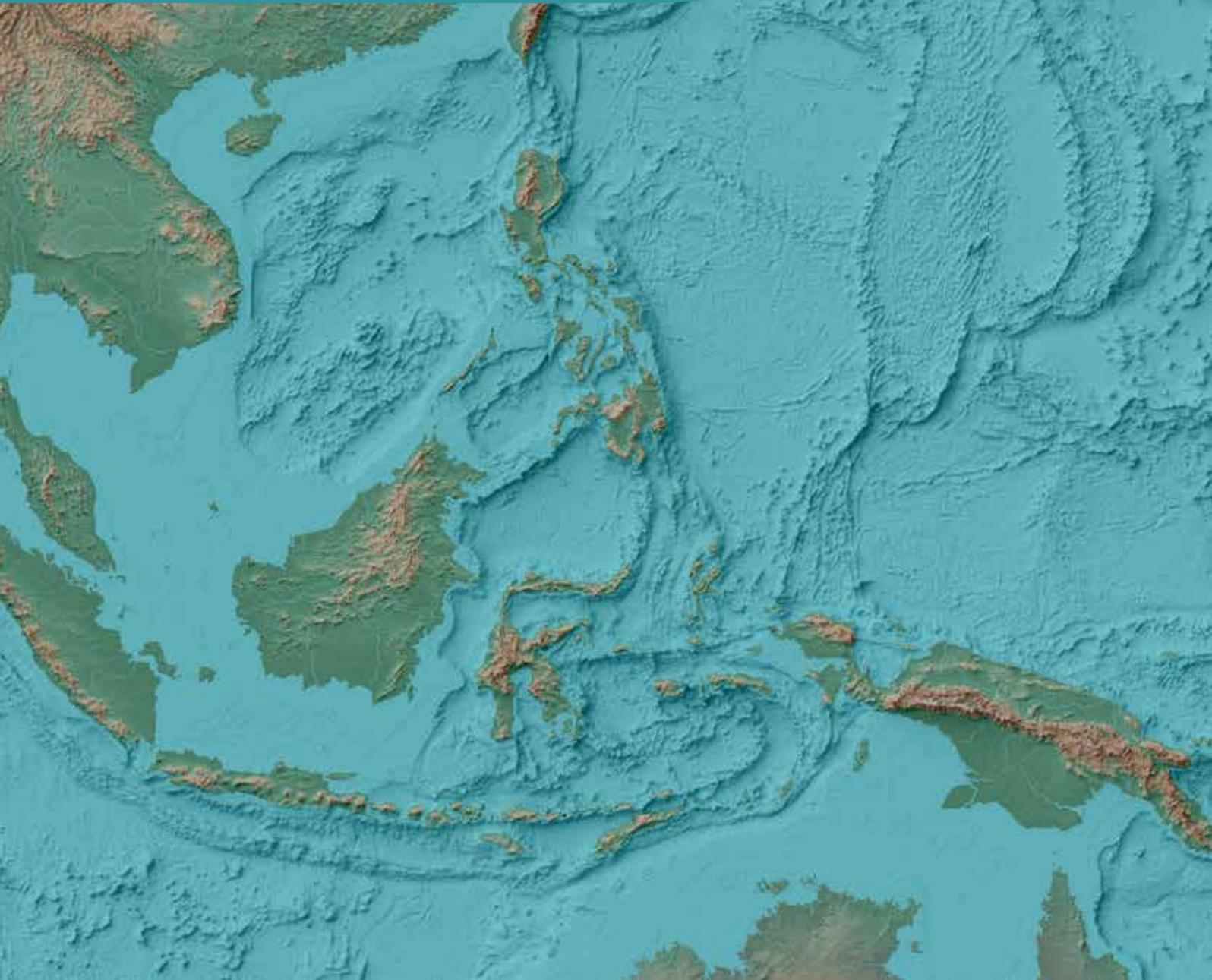
This article focuses on SLR's impact on baselines, maritime zones and maritime boundaries generated from the mainland coast of Southeast Asian states and excludes analysis of maritime claims made from the features in the South China Sea, which raises different issues.²⁰ It also does not discuss the legal implications of the complete loss of territory (and consequent loss of maritime entitlement) resulting from SLR, but confines the analysis to its impact on unilateral limits and maritime boundaries, which may result in a reduction of maritime entitlement.

This article will explore the potential implications of sea level rise for the maritime security of Southeast Asian states through the lens of sea level rise's impact on maritime jurisdictional clarity

Planting mangrove forests to reduce the impact of coastal erosion and reduce global warming in Thailand.



SOUTHEAST ASIAN STATES' PRACTICE ON BASELINES, MARITIME ZONES AND MARITIME BOUNDARIES



UNCLOS sets out, *inter alia*, rules on the baselines from which maritime entitlement is generated, its extent, and states' obligations if such entitlement overlaps.

The *legal basis* for coastal states' maritime entitlement in oceans spaces predates UNCLOS and has a long history, shaped by competing state interests, power, and technological developments. From its beginnings, various justifications have been articulated on why states should have exclusive rights over ocean spaces and their resources as opposed to why they should be free for use by all states.²¹ In the early twentieth century, the rationale most widely accepted was that sovereignty over land territory was the legal basis for coastal states' rights in ocean spaces.²² This notion first arose in the context of the territorial sea,²³ and was more explicitly articulated as "the land dominates the sea" principle by the International Court of Justice (ICJ) in relation to coastal states' rights over the continental shelf.²⁴ While the "land dominates the sea" principle is not mentioned in UNCLOS, post-UNCLOS maritime delimitation cases have held that territorial sovereignty over the land is a precondition for coastal state sovereignty, sovereign rights and jurisdiction in ocean spaces.²⁵

UNCLOS proceeds on an assumption that territorial sovereignty is settled, and coastal states are entitled to draw baselines from that territory. There are three types of baselines recognised under UNCLOS: normal, straight and archipelagic, and coastal states may determine baselines by any of these methods to suit different conditions.²⁶ Coastal states have sovereignty over a 12 nautical mile (M) territorial sea drawn from their baselines, subject to the innocent passage rights of foreign vessels.²⁷ Archipelagic states have sovereignty over archipelagic waters enclosed by archipelagic baselines subject to the right of archipelagic sea lane passage, and sovereignty over the territorial sea measured from archipelagic baselines.²⁸ Coastal and archipelagic states have sovereign rights over natural resources in the 200 M Exclusive Economic Zone (EEZ) and continental shelf that may extend beyond 200 M if the coastal/archipelagic state meets certain geological and geomorphological criteria (extended continental shelf).²⁹ Islands, which are naturally formed areas of land above water at high tide, also generate maritime entitlements: if they can sustain human habitation or an economic life of their own, they are entitled to a 12 M territorial sea, EEZ, and continental shelf; if they cannot, then such islands are considered rocks, only entitled to a 12 M territorial sea.³⁰

From the 1960s, newly independent Southeast Asian states began to establish baselines and make claims to territorial seas, archipelagic waters, EEZs and continental shelves, driven by the need for ocean resources and the concomitant economic security that would bring. However, congested coastal geography, coupled with sovereignty disputes over offshore features, historic waters claims, and differing interpretations of the applicable international law resulted in a multitude of overlapping maritime claims, some of which have been settled by the establishment of maritime boundaries or by provisional arrangements pending agreement on boundaries.³¹ The following sections outline Southeast Asian state practice on baselines, maritime zones and

maritime boundaries from their mainland coasts. Table 1 provides an overview of baseline and maritime zone claims of Southeast Asian states and Table 2 provides the list of maritime boundary arrangements that have been concluded by at least one Southeast Asian state.

NORMAL BASELINES

As a default rule, the outer limits of a state's territorial sea, EEZ and continental shelf are drawn from its normal baselines, which as provided in Article 5 correspond to "the low-water line along the coast as marked on large-scale charts officially recognised by the coastal State." The low-water line is of further significance in determining baselines or closing lines with respect to reefs (Article 6)³², the mouths of rivers (Article 9)³³, bays (Article 10), or low-tide elevations situated in the territorial sea (Article 13).³⁴ Coastal states have discretion on what vertical datum can be used to depict their low-water line;³⁵ most rely on the lowest astronomical tide (LAT) in order to maximise the seaward limit of their internal waters and consequently the area where the territorial sea begins.³⁶ UNCLOS does not specify what is meant by "large-scale charts officially recognized by coastal states." Charts have been understood to mean nautical charts (i.e., "a map specifically designed to meet the needs of maritime navigation").³⁷ The coastal state does not have to produce the chart (i.e., it can rely on charts produced by other hydrographical agencies) and only has to "recognize" it.³⁸ Issuing or authorising a chart for use in navigation under the Safety of Life at Sea (SOLAS) may constitute recognition under Article 5, and if no chart has been officially recognised, the low-water line may be determined by recourse to other means.³⁹ UNCLOS does not require the deposit of charts with the UN to give normal baselines due publicity.

Brunei has not enacted any specific legislation on baselines but its Territorial Waters Act states that the territorial sea breadth shall be measured in accordance with international law and that the relevant authority will publish a large-scale map indicating "the low-water marks."⁴⁰

Singapore has not enacted any legislation setting out its baselines. Singapore's Hydrographic Division has issued nine nautical charts for navigational use, which indicate its port limits and traffic separation schemes, but not the low-water line.⁴¹ Singapore, being land-scarce and geographically disadvantaged, has engaged in extensive land reclamation since colonial times and is reported to have expanded its area by 25 % from 58,150 to 71,910 hectares in order to support development and urbanisation.⁴² UNCLOS permits the artificial extension of the coastline; the low-water line around Singapore's reclaimed land constitutes its normal baselines.⁴³ In terms of maritime boundaries, Singapore and Indonesia reportedly agreed that the alterations to the former's baselines due to land reclamation would have no impact on the position of its territorial sea delimitations in 2009 and 2014.⁴⁴ In media reports, Malaysia has expressed concern that Singapore's land reclamation projects would impact the location of its baselines (and extend its territory closer to Malaysia), which could affect the pending delimitation between their coasts.⁴⁵

Timor-Leste has enacted legislation which adopts the low-tide line as the normal baseline except for straight lines drawn across the mouth of rivers and bays.⁴⁶ The low-tide line has been defined as the low-tide line of the seashores of the territory of Timor-Leste, as shown in official larger scale maps officially recognised by the Government of Timor-Leste.⁴⁷

Brunei, Singapore and Timor-Leste have no obligation under UNCLOS to deposit charts or geographical coordinates with the UN Secretary-General (SG).

STRAIGHT BASELINES

Straight baselines can be used in certain exceptional circumstances, recognised under customary international law and reflected in Article 7 of UNCLOS.⁴⁸ Straight baselines can be drawn around coastlines that are deeply indented and cut into, or where a fringe of islands is present along the coast in its immediate vicinity.⁴⁹ Article 7 (2) recognises that in the presence of a delta and other natural conditions causing the coastline to be highly unstable, straight baselines shall remain effective until changed by the coastal state in accordance with UNCLOS, notwithstanding subsequent regression of the low-water line. Additionally, the drawing of straight baselines “must not depart to any appreciable extent from the general direction of the coast,” and the sea areas to be enclosed “must be sufficiently closely linked to the land domain to be subject to the regime of internal waters”.⁵⁰ The language in Article 7 has been described as “imprecise” so as to “allow any coastal country, anywhere in the world to draw straight baselines along its coast.”⁵¹ International courts and tribunals have held that straight baselines are an exception to the normal rules for the determination of baselines and hence must be applied restrictively.⁵²

Cambodia,⁵³ Malaysia,⁵⁴ Myanmar,⁵⁵ Thailand⁵⁶ and Vietnam⁵⁷ have enacted legislation or issued statements which reflect that in certain localities of their coast, straight baselines have been drawn. Their straight baseline claims have been protested by other states for being inconsistent with Article 7.⁵⁸ However, in some of their maritime boundary delimitations, these Southeast Asian states have either accepted the non-UNCLOS compliant straight baseline claims of other states,⁵⁹ or have disregarded them for maritime boundary delimitation.⁶⁰

Unlike normal baselines, Article 16 requires straight baselines to be “shown on charts of a scale or scales adequate for ascertaining their position” or substituted with “a list of geographical coordinates of points, specifying the geodetic datum”;⁶¹ states shall give due publicity to straight baselines and shall deposit either the charts or lists with the Secretary-General of the United Nations.⁶² Only Malaysia and Myanmar have officially submitted lists of their geographical coordinates with the UN SG.⁶³ Cambodia, Thailand and Vietnam have declared the geographical coordinates for their straight baselines in their national legislation, but this may not be sufficient to meet the due publicity requirements in Article 16.⁶⁴

ARCHIPELAGIC BASELINES

Archipelagic states can draw archipelagic baselines “joining the outermost points of the outermost islands and drying reefs of the archipelago” under Article 47 of UNCLOS, if they meet the definition of an “archipelagic state” under Article 46 and fulfil the conditions in Article 47. Archipelagic baselines can only be drawn from low-tide elevations if “lighthouses or similar installations which are permanently above sea level have been built on them or where a low-tide elevation is situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the nearest island.”⁶⁵ Archipelagic states also have due publicity obligations under Article 47 (9); they are similar to straight baselines in that they should be shown on charts of an adequate scale or substituted with a list of geographical coordinates of points, specifying the geodetic datum, and these charts or lists shall be deposited with the UN SG.⁶⁶

Indonesia, an archipelagic state consisting of approximately 17,508 islands, has enacted a series of national laws establishing its archipelagic baselines in 1998 (around Natuna Islands), and in 2002 as amended in 2008, which have been deposited with the UN pursuant to Article 47 (9) of UNCLOS.⁶⁷ Its baseline system is composed of 192 baseline segments, of which 160 are straight archipelagic baselines and 32 are normal baseline segments, and the basepoints are only on islands and not on low-tide elevations.⁶⁸ While Indonesia’s baselines have been described as consistent with Article 47 of UNCLOS, Timor-Leste has lodged a protest, stating that it does not recognise certain segments of Indonesia’s archipelagic straight baselines which cut into the maritime claims of Timor-Leste.⁶⁹

The Philippines, an archipelagic state consisting of 7641 islands, enacted legislation in 2009 to draw archipelagic baselines which have been deposited with the UN SG pursuant to Article 47 (9) of UNCLOS.⁷⁰ The Philippines uses islands and reefs (and not low-tide elevations) in the construction of archipelagic baselines.⁷¹ China has objected to the Philippines’ deposit of archipelagic baselines because the Philippines’ Act claimed the Kalayaan Island Group (part of the Spratly Islands in the South China Sea claimed by China) as subject to the Philippines’ sovereignty and jurisdiction.⁷²

MARITIME ZONES

Baselines determine the outer limits of the 12 M territorial sea, the contiguous zone, the 200 M EEZ and the 200 M continental shelf.⁷³ If states meet certain geological and geomorphological requirements in Articles 76 (4) to (6) of UNCLOS, they may also be entitled to an extended continental shelf beyond 200 M. They must submit information on continental shelf limits beyond 200 M to the Commission on the Limits of the Continental Shelf (CLCS), who shall make final and binding recommendations on these outer limits.⁷⁴

Coastal states do not have publicity requirements for territorial sea or contiguous zone outer limits but do have publicity requirements for the outer limits of the 200 M EEZ (Article 75), the 200 M continental shelf (Article 84),

and extended continental shelf.⁷⁵ For the latter, continental shelf limits established by a coastal state on the basis of the CLCS recommendations shall be final and binding, and the coastal state must deposit with the UN SG charts and relevant information that *permanently* describe the outer limits of its continental shelf under Article 76 (9).⁷⁶

All Southeast Asian coastal states have either enacted legislation or issued statements or proclamations that claim a territorial sea, an EEZ, and a continental shelf, some of which predates the adoption of UNCLOS.⁷⁷ With the exception of Vietnam, none of the Southeast Asian states have deposited charts or geographical coordinates with the UN SG on the outer limits of the EEZ or continental shelf pursuant to Articles 75 and 84. Vietnam's deposit of geographical coordinates relates to its maritime boundary agreement for the territorial sea, EEZ, and continental shelf with China in the Gulf of Tonkin.⁷⁸

Brunei,⁷⁹ Indonesia,⁸⁰ Myanmar,⁸¹ the Philippines,⁸² Malaysia and Vietnam (jointly),⁸³ Vietnam,⁸⁴ and Malaysia⁸⁵ have either submitted preliminary information or made submissions on their extended continental shelf claims to the CLCS. Only Indonesia's claim in respect of North-West Sumatra Island and the Philippines' claim in Benham Rise from Luzon Island have been subject to a final and binding recommendation by the CLCS.⁸⁶ Indonesia has not deposited charts and relevant information permanently describing the outer limits of its continental shelf pursuant to Article 76 (9), but the Philippines has.⁸⁷ The remaining submissions of Southeast Asian states have not been considered by the CLCS, and indeed, some of them may not be, given that they have been the subject of objections by other states on the grounds that a "land or maritime" dispute exists.⁸⁸ The upshot is that only the Philippines has permanently established the outer limits of its extended continental shelf claim in Benham Rise under Article 76 (9).

MARITIME BOUNDARIES

In the event there are overlapping claims to the territorial sea, EEZ and/or continental shelf, maritime delimitation is effected either by negotiations resulting in a treaty or by third-party dispute settlement, which can be binding (adjudication by international courts and tribunal or arbitration) or non-binding (mediation or conciliation). For the territorial sea, Article 15 of UNCLOS requires either the use of equidistance or the median line, except where historic title or special circumstances exist which require another method to be used. For the EEZ and continental shelf, delimitation is to be "effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the [ICJ] in order to achieve an equitable solution."⁸⁹ International courts and tribunals have fleshed out the methodology for maritime delimitation as a three-stage approach: establishing a provisional equidistance or median line unless there are compelling reasons that make this unfeasible; consideration of whether there are factors calling for the adjustment of the provisional equidistance line to achieve an equitable result (including the configuration of coasts and presence of islands); and verification that the boundary does not lead to an inequitable result due to disproportionality between the ratio of respective coastal lengths and the ratio of the relevant maritime area.⁹⁰

Southeast Asia has been described as a "scene of very active and innovative ocean boundary diplomacy."⁹¹ From 1969 (the beginning of UNCLOS negotiations) to date, Southeast Asian states have been a party to 32 delimitation agreements relating to the territorial sea, EEZ and/or continental shelf, as well as provisional arrangements pending maritime delimitation (although not all of them are in force) (see Table 2). A majority of such agreements were concluded before the entry into force of the UNCLOS or before some states had enacted baselines, and certainly before the recognition of the potential ramifications of SLR on maritime entitlement and boundaries. Southeast Asian states have also been a party to a number of provisional arrangements pending agreement on maritime boundaries (see Table 2).

With regard to third-party dispute settlement on maritime boundaries, Malaysia, Singapore and Thailand have exercised their option under Article 298 of UNCLOS to exclude them from compulsory dispute settlement under Part XV of UNCLOS.⁹² Timor-Leste initiated compulsory conciliation with Australia, which led to a maritime boundary in 2018;⁹³ Bangladesh initiated proceedings against Myanmar in respect of maritime boundaries in the Bay of Bengal;⁹⁴ and Malaysia's proceedings against Singapore before an Annex VII tribunal on land reclamation also included a request for the delimitation of the boundary between the territorial waters of the two states in the west of Singapore, although the proceedings were terminated and both agreed to resolve maritime boundaries through amicable negotiation.⁹⁵

Despite the progress in demarcating maritime jurisdiction (or concluding provisional arrangements pending delimitation),⁹⁶ there are still undelimited areas in which skirmishes over the exercise of conflicting entitlement or jurisdictional rights flare up.⁹⁷ For example, Cambodia has not concluded any maritime boundary agreements; however, it has concluded the 1982 Historic Waters Agreement with Vietnam and a 2001 Memorandum of Understanding on overlapping claims to the continental shelf in the Gulf of Thailand,⁹⁸ which contemplate further negotiations on boundaries and/or joint development of resources in these areas.⁹⁹ Cambodia has undelimited boundaries with Vietnam and Thailand. Indonesia still has undelimited territorial sea boundaries with Malaysia, Singapore and Timor-Leste; continental shelf boundaries with Malaysia (Sulawesi sea), the Philippines, Palau and Timor-Leste; and EEZ boundaries with India, Thailand, Vietnam, and Malaysia.¹⁰⁰ Malaysia still needs to delimit boundaries with Singapore to the east and west of their coastlines, with Indonesia and with the Philippines.¹⁰¹ The Philippines has only concluded one maritime delimitation agreement with Indonesia and has undelimited areas with Indonesia, Malaysia, and Palau. Singapore has undelimited areas with Malaysia and Indonesia, including in the vicinity of the island of Pedra Branca belonging to Singapore.¹⁰² Thailand has undelimited areas with Cambodia and Indonesia.¹⁰³ Timor-Leste has undelimited areas with Indonesia;¹⁰⁴ and Vietnam has undelimited areas with Cambodia, Malaysia, Thailand, and Indonesia, although some of these areas are subject to provisional arrangements (Table 2).

TABLE 1: BASELINES AND MARITIME ZONES OF SOUTHEAST ASIAN STATES

State	Baselines			Maritime Zone Claims				Extended Continental Shelf Claims			
	Type	Publicity	Objection	Territorial Sea	Contiguous Zone	EEZ	Continental Shelf	CLCS Submission	CLCS Recommendation	Objection	Publicity
Brunei	Normal	NA	No	Yes	-	Yes	Yes	PI	No	No	NA
Cambodia	Straight	No	United States	Yes	Yes	Yes	Yes	No	NA	NA	NA
Indonesia	Archipelagic	Yes	Timor-Leste	Yes	No	Yes	Yes	4 sub-missions	1 recommendation	No	No
Malaysia	Straight	Yes	Singapore	Yes	No	Yes	Yes	2 sub-missions	No	China Philippines	NA
Myanmar	Straight	Yes	Bangladesh	Yes	Yes	Yes	Yes	1 sub-mission	No	Bangladesh	NA
Philippines	Archipelagic	Yes	China	Yes	No	Yes	Yes	1 sub-mission	1 recommendation	No	Yes
Singapore	Normal	NA	No	Yes	No	Yes	No	No	NA	NA	NA
Thailand	Straight	No	United States Germany	Yes	Yes	Yes	Yes	No	NA	NA	NA
Timor-Leste	Normal	NA	No	Yes	Yes	Yes	Yes	No	NA	NA	NA
Vietnam	Straight	No	United States	Yes	No	Yes	Yes	2 sub-missions	No	China Philippines	NA

Key

CLCS Commission on the Limits of the Continental Shelf

NA Not Applicable

PI Preliminary Information to the CLCS

submission Submission to the CLCS

TABLE 2: MARITIME BOUNDARY ARRANGEMENTS IN SOUTHEAST ASIA

No.	Year	Parties	Type of Delimitation	Area	Signed/ Entered Into Force	Title [with endnote to full title of Agreement]
MARITIME DELIMITATION AGREEMENTS						
1	1969	Indonesia Malaysia	Continental Shelf	Straits of Malacca West South China Sea East South China Sea	27 Oct 1969 7 Nov 1969	1969 Indonesia-Malaysia Continental Shelf Delimitation (Straits of Malacca and the South China Sea)
2	1970	Indonesia Malaysia	Territorial Sea	Straits of Malacca	17 March 1970 8 Oct 1971	1970 Indonesia-Malaysia Territorial Sea Delimitation (Straits of Malacca)
3	1971	Indonesia Australia (PNG)	Continental Shelf	New Guinea Arafura Sea	18 May 1971 8 Nov 1973	1971 Indonesia-Australia (Papua New Guinea) Continental Shelf Delimitation (New Guinea and Arafura Sea)
4	1971	Indonesia Thailand	Continental Shelf	Strait of Malacca Andaman Sea	17 Dec 1971 16 July 1973	1971 Indonesia-Thailand Continental Shelf Delimitation (Straits of Malacca and Andaman Sea)
5	1971	Indonesia Malaysia Thailand	Continental Shelf	Northern Part of the Strait of Malacca	21 Dec 1971 16 July 1973	1971 Indonesia-Malaysia- Thailand Continental Shelf Delimitation (Straits of Malacca)
6	1972	Indonesia Australia	Continental Shelf	Timor Sea Arafura Sea	9 Oct 1972 8 Nov 1973	1972 Indonesia-Australia Continental Shelf Delimitation (Timor Sea and Arafura Sea)
7	1973	Indonesia Australia (PNG)	Single Multi- Purpose Territorial Sea, Continental Shelf Fishery Boundary	South of New Guinea in the Arafura Sea	12 Feb 1973 26 Nov 1974	1973 Indonesia – Australia (Papua New Guinea) Delimitation (Arafura Sea)
8	1973	Indonesia Singapore	Territorial Sea	Straits of Malacca	25 May 1973 29 Aug 1974	1973 Indonesia-Singapore Territorial Sea Delimitation (Straits of Malacca)
9	1974	Indonesia India	Continental Shelf	Andaman Sea dividing the shelf between Nicobar Islands and Sumatra of Indonesia	8 Aug 1974 17 Dec 1974	1974 Indonesia-India Continental Shelf Delimitation (Andaman Sea)
10	1975	Indonesia Thailand	Continental Shelf	Andaman Sea	11 Dec 1975 18 Feb 1978	1975 Indonesia-Thailand Continental Shelf Delimitation (Andaman Sea)
11	1977	Indonesia India	Continental Shelf	Andaman Sea	14 Jan 1977 15 Aug 1977	1977 Indonesia-India Continental Shelf Delimitation (Andaman Sea)
12	1978	India Thailand	Continental Shelf	Andaman Sea	22 June 1978 15 Dec 1978	1978 India-Thailand Continental Shelf Delimitation (Andaman Sea)
13	1978	Indonesia India Thailand	Continental Shelf	Andaman Sea	22 June 1978 2 March 1979	1978 Indonesia-India-Thailand Continental Shelf Delimitation (Andaman Sea)
14	1979	Malaysia Thailand	Territorial Sea	Straits of Malacca Gulf of Thailand	24 Oct 1979 15 July 1982	1979 Malaysia-Thailand Territorial Sea Delimitation (Straits of Malacca and Gulf of Thailand)

15	1979	Malaysia Thailand	Continental Shelf	Gulf of Thailand	24 Oct 1979 15 Oct 1982	1979 Malaysia- Thailand Continental Shelf Delimitation (Gulf of Thailand)
16	1980	Myanmar Thailand	Single Multi- Purpose Territorial Sea, Continental Shelf Fishery Boundary	Andaman Sea	25 July 1980 12 April 1982	1980 Myanmar -Thailand Delimitation (Andaman Sea)
17	1980	Indonesia Papua New Guinea	Single Multi- Purpose Continental Shelf EEZ	Pacific Ocean	13 Dec 1980 10 July 1982	1980 Indonesia-Papua New Guinea Delimitation (Pacific Ocean)
18	1981	Indonesia Australia	Provisional Fishery Line	Timor Sea	29 Oct 1981 1 Feb 1982	1981 Indonesia-Australia Provisional Fishery Delimitation (Timor Sea)
19	1986	Myanmar India	Single Multi- Purpose Territorial Sea, Continental Shelf Fishery Boundary	Andaman Sea Coco Channel Bay of Bengal	23 Dec 1986 14 Sept 1987	1986 Myanmar-India Delimitation (Andaman Sea, Coco Channel and Bay of Bengal)
20	1993	India Thailand	Continental Shelf	Andaman Sea	27 Oct 1993	1993 India- Thailand Continental Shelf Delimitation (Andaman Sea)
21	1993	India Myanmar Thailand	Continental Shelf	Andaman Sea	27 Oct 1993 24 May 1995	1993 India-Myanmar-Thailand Continental Shelf Delimitation (Andaman Sea)
22	1995	Malaysia (Johor) Singapore	Territorial Waters	Johor Straits	07 Aug 1995 07 Aug 1995	1995 Malaysia-Singapore Territorial Waters Delimitation (Johor Strait)
23	1997	Australia Indonesia	Multiple Boundaries Continental Shelf EEZ	Timor Sea	14 Mar 1997 Not yet in force	1997 Australia-Indonesia Delimitation (Timor Sea)
24	1997	Thailand Vietnam	Single Multi- Purpose Continental Shelf EEZ	Gulf of Thailand	9 Aug 1997 27 Dec 1997	1997 Thailand-Vietnam Delimitation (Gulf of Thailand)
25	2000	China Vietnam	Single Multi- Purpose Territorial Sea Continental Shelf EEZ	Gulf of Tonkin	25 Dec 2000 30 June 2004	2000 China-Vietnam Delimitation (Gulf of Tonkin)
26	2003	Indonesia Vietnam	Continental Shelf	South China Sea	26 June 2003 29 May 2007	2003 Indonesia-Vietnam Continental Shelf Delimitation (South China Sea)
27	2009	Indonesia Singapore	Territorial Sea	Singapore Strait (Western)	10 March 2009 30 August 2009	2009 Indonesia-Singapore Territorial Sea Delimitation (Western Singapore Strait)
28	2009	Brunei Malaysia	Single Multi- Purpose Territorial Sea Continental Shelf EEZ	Off Borneo	Unknown*	2009 Brunei-Malaysia Delimitation (off Borneo)
29	2014	Indonesia Philippines	EEZ	Mindanao Sea / Celebes Sea	23 May 2014 1 Aug 2019	2014 Indonesia-Philippines EEZ Delimitation (Mindanao / Celebes Sea)

30	2014	Indonesia Singapore	Territorial Sea	Singapore Strait (Eastern)	3 Sept 2014 10 Feb 2017	2014 Indonesia-Singapore Territorial Sea Delimitation (Eastern Singapore Strait)
31	2018	Australia Timor- Leste	Continental Shelf EEZ	Timor Sea	6 March 2018 30 August 2019	2018 Australia-Timor-Leste Establishing their Maritime Boundaries in the Timor Sea
32	2022	Indonesia Vietnam	EEZ	South China Sea	Unknown	2022 Indonesia-Vietnam EEZ Boundary
PROVISIONAL ARRANGEMENTS PENDING MARITIME BOUNDARIES						
33	1979 1990	Malaysia Thailand	Joint Development (Seabed Resources)	Gulf of Thailand	24 Oct 1979 15 July 1982	1979/1990 Malaysia-Thailand Provisional Arrangement (Gulf of Thailand)
34	1982	Cambodia Vietnam	Joint Historic Waters	Gulf of Thailand	7 July 1982 7 July 1982	1982 Cambodia-Vietnam Provisional Arrangement (Gulf of Thailand)
35	1989	Australia Indonesia	Joint Development (Seabed Resources)	Timor Sea	11 Dec 1989 9 Feb 1991 (No longer in force)	1989 Australia-Indonesia Provisional Arrangement (Timor Sea)
36	1992	Malaysia Vietnam	Joint Development (Seabed Resources)	Gulf of Thailand	5 June 1992 5 May 1992	1992 Malaysia-Vietnam Provisional Arrangement (Gulf of Thailand)
37	1999	Malaysia Thailand Vietnam	Joint Development (Seabed Resources)	Gulf of Thailand	Not in Force	1999 Malaysia-Thailand- Vietnam Provisional Arrangement (Gulf of Thailand)
38	2000 2002 2003 2006	Australia East Timor	Joint Development (Seabed Resources)	Timor Sea	See Endnote	2002 Australia-East Timor Provisional Arrangement (Timor Sea)
39	2001	Cambodia Thailand	Joint Development (Seabed Resources)	Gulf of Thailand	18 June 2001 Not yet in force	2001 Cambodia-Thailand Provisional Arrangement (Gulf of Thailand)
40	2005	China Philippines Vietnam	Joint Marine Seismic Surveys	South China Sea	14 March 2005 (No longer in force)	2005 China-Vietnam- Philippines Provisional Arrangement (South China Sea)

SOUTHEAST ASIAN APPROACHES TO IMPLICATIONS OF SLR ON BASELINES, MARITIME ZONES AND MARITIME BOUNDARIES

Southeast Asia is one of the world's fastest growing regions, and the GHG emissions of Southeast Asian states are projected to increase in the years leading up to 2030.¹⁰⁵

At the same time, Southeast Asia is one of the most vulnerable regions to the impacts of climate change including SLR due to high levels of economic activity on coasts, with an estimated 77 % of the region's populations living in coastal areas.¹⁰⁶ Southeast Asian states face different levels of SLR within varying time frames and with different consequences depending on the particular social, economic and geographic circumstances of the state.¹⁰⁷ Vietnam has the highest coastal population, followed by Thailand and Malaysia.¹⁰⁸ Vietnam and Thailand are projected to be below average annual coastal flood levels by 2050.¹⁰⁹ Cambodia (with a relatively smaller littoral zone in the Gulf of Thailand) and Singapore (hemmed in by calmer straits) have a small total coastal area exposure,¹¹⁰ but both are low-lying, with projected SLR in Singapore to be 1 m by 2050.¹¹¹ SLR will also have significant consequences for the archipelagic states, Indonesia and the Philippines. For example, Indonesia is projected to lose approximately 1950 hectares in their coastal area and at least 115 of Indonesia's islands may be underwater by 2100 because of SLR and land subsistence.¹¹² Similarly, an estimated 16.9 % of the Philippines' islands are projected to become submerged under extreme scenarios of SLR (6 m).¹¹³ The following sections first outline current developments in various fora on the legal effect of SLR on baselines, maritime zones and maritime boundaries, followed by an examination of the approach of Southeast Asian states to these issues.



CURRENT DEVELOPMENTS ON THE LEGAL EFFECT OF SLR ON BASELINES, MARITIME ZONES AND MARITIME BOUNDARIES

UNCLOS was negotiated at a time when SLR and its effects was not perceived as an issue that needed to be addressed.¹¹⁴ Consequently, a critical question has been to what extent UNCLOS addresses consequences to baselines, outer limits of maritime zones and maritime boundaries in the event of changing coastal geography caused by anthropogenic SLR. There are two main arguments that have been canvassed in the scholarly literature.¹¹⁵

First, the *ambulatory* interpretation of UNCLOS posits that when there is geographical change including changes caused by SLR, states have an *obligation* to adjust normal baselines and its outer limits to reflect the physical realities of the coast.¹¹⁶ This applies equally to maritime boundaries effected by agreement or established through third-party dispute settlement, which are “constructed from the most appropriate points on the coasts of the two states concerned, with particular attention being paid to those protuberant coastal points situated nearest to the area to be delimited.”¹¹⁷

Second, the counterargument is that baselines, outer limits of maritime zones and maritime boundaries can be *preserved* by the coastal state under UNCLOS regardless of geographical change wrought by sea level rise. Where a state “has established lawful and effective maritime limits, the coastal state is not legally required to redraw them in response to subsequent geographical change or revision of existing charts to record such change”, although it may *elect* to do so depending on a range of considerations (except outer continental shelf limits deposited in accordance with Article 76 [9]).¹¹⁸ Similarly, maritime boundaries, unless there are specific terms in them, are permanent and “neither the prospect of climate change, nor its possible effects can jeopardise the large number of settled maritime boundaries throughout the world.”¹¹⁹

There are numerous initiatives that are considering this issue, including efforts by the ILA Committee on Sea Level Rise (ILA SLR Committee)¹²⁰ and the ILC’s Study Group on Sea Level Rise (ILC SLR Study Group), although they have different mandates and functions.¹²¹ It is particularly relevant that the ILC SLR Study Group, pursuant to its mandate, invited information and other submissions from UN member states on their legislative and other practices on these issues and has “played a central role in facilitating a global forum for the exchange of views of States: the UNGA Sixth Committee.”¹²² Given the extensive literature and discussion on the legal effect of SLR on a range of law of the sea issues,¹²³ including extensive legal analysis carried out by both above-mentioned initiatives,¹²⁴ this section will only briefly highlight the most recent developments.

First, both the ILA SLR Committee and the ILC SLR Study Group have emphasised that UNCLOS does not prevent the preservation of baselines, maritime zones outer limits, and maritime boundaries by states even if there is geographical change to the coasts as a result of SLR. The ILA Sea Level Rise Committee in 2018 proposed that:

*States should accept that, once the baseline and the outer limits of the maritime zones of a coastal or an archipelagic State have been properly determined in accordance with the detailed requirements of [UNCLOS], that also reflect customary international law, these baselines and limits should not be required to be readjusted should sea level change affect the geographical reality of the coastline.*¹²⁵

The ILC SLR Study Group in its First Issues Paper in 2020 observed that UNCLOS does not “prohibit *expressis verbis* such preservation” of baselines and outer limits and that “nothing

prevents Member States from depositing notifications, in accordance with the Convention, regarding the baselines and outer limits of maritime zones measured from the baselines and, after the negative effects of sea level rise occur, to stop updating these notifications in order to preserve their entitlements.”¹²⁶ Moreover, both the ILA SLR Committee and the ILC SLR Study Group have endorsed the position that in order to preserve legal stability, security, certainty and predictability, existing maritime delimitation (either effected by agreement or by adjudication) should be preserved notwithstanding coastal changes produced by sea level rise.¹²⁷ The ILC SLR Study Group also noted that based on a survey of maritime delimitation treaties done by the UN Office of Codification, the majority of them did not include provisions on amendments; many had express provisions on the permanent character of delimitation; and none provided for adjustment as a consequence of SLR.¹²⁸

Second, the views of states reflected in submissions made to the ILC SLR Study Group, statements made in the UN Sixth Committee, and “collective positions as expressed in various international and regional declarations”¹²⁹ demonstrate an increasing convergence on the analysis put forth by the ILC SLR Study Group. The views of states have been extensively analysed by the ILC SLR Study Group and the ILA SLR Committee and will not be repeated here in detail.¹³⁰ However, the practice of certain groups of states is relevant for the present purposes and will be briefly highlighted.

The 2021 Pacific Island Forum (PIF) Declaration represents the most comprehensive statement on the legal effect of SLR on baselines, outer limits of maritime zones and maritime delimitation for a regional grouping that is particularly impacted by SLR. The Declaration, *inter alia*, affirms UNCLOS as the legal framework within which all activities in the oceans and seas must be carried out, and states: that the relationship between climate change-related sea level rise and maritime zones was not contemplated by the drafters of UNCLOS; that the principles of legal stability, security, certainty and predictability that underpin UNCLOS are relevant to its interpretation and application in the context of SLR and climate change; that UNCLOS imposes no affirmative obligation to keep baselines and outer limits of maritime zones under review nor to update charts or lists of geographical coordinates once deposited with the UN SG; and that maritime zones established and notified to the UN SG in accordance with UNCLOS shall continue to apply without reduction, notwithstanding any physical changes connected to climate change-related sea level rise.¹³¹ The 2021 Declaration is a culmination of both individual and regional efforts by Pacific Island states to preserve their baselines, limits and maritime boundaries to ensure that their maritime entitlements would not be impacted by climate change-induced SLR,¹³² including encouraging PIF members to conclude all outstanding maritime boundaries.¹³³ This is very much a deliberate and concerted effort to concretise a “regional strategy to safeguard [PIF] Members maritime zones and related interests in the face of sea level rise.”¹³⁴

Apart from the Pacific Island states, several other states (including Southeast Asian ones) submitted examples of state practice as well as statements in the Sixth Committee, which reflect an increasing convergence on the need to interpret UNCLOS in a manner that responds to SLR by preserving baselines, maritime zone outer limits and maritime boundaries lawfully established pursuant to UNCLOS.¹³⁵ In particular, the Declaration by the Alliance of Small Island States (AOSIS) warrants mention as it is a grouping that includes not only Pacific Ocean members (14 out of the 18 members of the PIF), but also states from other regions: Africa (3), Indian Ocean (4), the Caribbean (16), and Southeast Asia (2). The 2021 AOSIS Declaration said:

Affirm[ed] that there is no obligation under [UNCLOS] to keep baselines and outer limits of maritime zones under review nor to update charts or lists of geographical coordinates once deposited with the Secretary-General of the United Nations, and that such maritime zones and the rights and entitlements that flow from them shall continue to apply without reduction, notwithstanding any physical changes connected to climate change-related sea level rise.¹³⁶

The 2021 PIF Declaration was endorsed by the Climate Vulnerable Forum¹³⁷ and the Organization of Caribbean and Pacific States.¹³⁸

A final development that warrants note relates to the possible legal options that have been suggested to establish clarity on the legal effect of SLR on baselines, maritime boundaries and outer limits.¹³⁹ This includes the amendment of UNCLOS or a negotiation of a new treaty,¹⁴⁰ the development of new customary international law through consistent, widespread and uniform state practice and *opinio juris*;¹⁴¹ and utilising treaty interpretation principles under the Vienna Convention on the Law of Treaties (VCLT) to interpret UNCLOS either through “any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions,” or “any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation.”¹⁴² Based on the most recent statements of states in their submissions to the ILC SLR Study Group and in the Sixth Committee, there is strong support for interpreting UNCLOS in a way that recognises that UNCLOS does not prohibit the preservation of baselines, maritime zones and boundaries in the face of SLR.¹⁴³

APPROACHES OF SOUTHEAST ASIAN STATES TO THE EFFECT OF SLR ON BASELINES, MARITIME ZONES AND MARITIME BOUNDARIES

Based on the existing practice of Southeast Asian states and the statements made in the context of the ILC SLR Study Group processes, the following preliminary observations can be made on the approaches of Southeast Asian states on the effect of SLR on baselines, maritime zones and boundaries.

SOUTHEAST ASIAN STATES HAVE NOT ACTED COLLECTIVELY IN RESPONSE TO SLR

Southeast Asian states have not acted collectively (as the Pacific Island states have done) in declaring and publicising their baselines, limits and boundaries or stating that they would not be changed due to climate change-induced SLR. While ASEAN, as the pre-eminent regional organisation for collective action between Southeast Asian States, has recognised SLR as a major climate change impact on the region, it has not been a forum for Southeast Asian states to collectively articulate their position on baselines, outer limits and maritime boundaries.¹⁴⁴ However, five of the ten Southeast Asian states affected (Indonesia, Malaysia, the Philippines, Singapore, Thailand) have made statements articulating their positions on SLR which, as elaborated on below, reflect some convergence.¹⁴⁵ It is also relevant that some Southeast Asian states are part of other regional forums that have endorsed the position of the PIF states set out in the 2021 PIF Declaration. For example, Singapore and Timor-Leste are part of AOSIS and the Philippines, Timor-Leste and Vietnam are part of the Climate Vulnerable Forum.¹⁴⁶

EXISTING PRACTICE OF SOUTHEAST ASIAN STATES ON THE LEGAL EFFECT OF SLR ON BASELINES, MARITIME ZONE OUTER LIMITS AND MARITIME BOUNDARIES

None of the legislation / statements / proclamations reviewed explicitly mentioned updating baselines / basepoints in response to geographical change. The Philippines noted in its submission to the ILC SLR Study Group that while its archipelagic baselines law did not contain specific provisions on updates, it does not preclude their possibility (such as in the cases of coastal accretion, formation of new features or developments in international law). Indeed, the Philippines stated that it updates its charts due to coastal changes as soon as possible for navigational safety and coastal zone management.¹⁴⁷ Certain Southeast Asian states (Cambodia, Indonesia,

Malaysia, Myanmar, Thailand, the Philippines and Vietnam) have used geographical coordinates and charts to depict their straight and archipelagic baselines; this has been interpreted as indicating a *spatial* dimension of stability.¹⁴⁸

With regard to Southeast Asian states' maritime boundaries, several of them expressly mention the *permanent* nature of the boundaries established.¹⁴⁹ All of them use geographic coordinates to identify the boundary and none of the delimitation agreements has explicit provisions on the adjustment of the delimitation line as a result of SLR; however, some of them contemplate adjustment of the agreed line in certain circumstances, including geographical changes. For example, the 1973 Indonesia – Australia (Papua New Guinea) Delimitation (Arafura Sea) provides that the boundary between Papua New Guinea and Indonesia on the island of New Guinea shall be more precisely demarcated at the thalweg of the Fly River and stipulates that photography of Fly River is to be arranged periodically at intervals to be agreed upon.¹⁵⁰ Similarly, the 1997 Australia-Indonesia Delimitation (Timor Sea) provides that “any islands within the meaning of Article 121 (1) of the 1982 Convention which emerges after the entry into force of this Treaty shall be the subject of consultations between the Parties with a view to determining its status.”¹⁵¹ Other than these specific examples, there is nothing to suggest that Southeast Asian states intended their maritime boundary agreements to be ambulatory or updated due to geographical change caused by SLR.

SOUTHEAST ASIAN STATES HAVE EMPHASISED THE IMPORTANCE OF UNCLOS

Southeast Asian states have maintained that any legal solution to the effect of SLR on baselines, outer limits and boundaries must be consistent with and/or not undermine the legal framework established under UNCLOS. Indonesia recommended that the topic be “approached with caution because of its sensitivity, particularly in relation to the issues of borders and delimitation” and “deliberations [within the Commission] must not undermine the existing regime on the law of the sea under [UNCLOS]”.¹⁵² Indonesia noted that there was no specific legal framework at the international level on sea level rise and no “clear-cut legal solution or common understanding has been reached” on consequences of changes from coasts or disappearance of features caused by SLR.¹⁵³ Malaysia also called for a cautious framework so as not to modify existing international law, in particular UNCLOS,¹⁵⁴ while the Philippines reiterated its universal and unified character and cautioned against any interpretation that would undermine it.¹⁵⁵ Vietnam stated that any approaches to address sea level rise should not involve the question of amending and/or supplementing UNCLOS.¹⁵⁶

SOUTHEAST ASIAN STATES' APPROACHES TO ARTIFICIAL CONSERVATION OR EXTENSION OF BASELINES

States confronting the recession of their coast due to SLR can use measures to artificially conserve the baseline through coastal protective works or extend it through land reclamation, which is permitted under UNCLOS and international law.¹⁵⁷ Similarly, physical measures to maintain the *existing* status and entitlements of maritime features affected by SLR such as low-tide elevations (above water at low tide) or islands (above water at high tide) are also allowed under UNCLOS.¹⁵⁸

It has been observed that Southeast Asian states have not pursued policies to legally fix baselines or national laws on maritime zones set out in accordance with UNCLOS, but “[have] favour[ed] geoengineering or land reclamation work to consolidate their fixed basepoints and maintain baselines and maritime zones in accordance with the Convention.”¹⁵⁹ For example, Singapore, in the context of state submissions to the ILC Study Group, noted in 2019 that “as a small, low-lying island State, [it] is particularly vulnerable to the threat of rising sea levels” and that sea level rise was an existential issue as well as “a challenge of the global commons that requires a multilateral approach.”¹⁶⁰ Singapore was also developing long-term strategies to protect its coasts from rising sea levels through measures including “engineered solutions such as building sea walls and dykes [...] complemented by nature-based solutions such as active mangrove restoration,” which could cost up to \$100 billion or more over the next 50 to 100 years.¹⁶¹ Indonesia has physically reinforced a small island used as a basepoint in its archipelagic baselines to elevate it above sea level, even though it had been reduced due to sand mining activities rather than climate change-induced SLR.¹⁶² Vietnam has also stated that it would focus on developing protection measures for its coastline through hard infrastructure.¹⁶³ Thailand is investing in hard structures along coastlines or shorelines to protect against SLR¹⁶⁴ and observed that states may adopt different coastal protection measures depending on their specific coastal conditions.¹⁶⁵

Malaysia, on the other hand, has expressed its concern about land reclamation. It stated that “although both sea level rise and reclamation activities pose possibly similar effects on a State’s maritime space, both activities should be carefully distinguished so as to avoid any State from taking advantage by enlarging its maritime space under the pretext of sea level rise.”¹⁶⁶

SOUTHEAST ASIAN STATES' INCREASING SUPPORT FOR PRESERVATION OF BASELINES, MARITIME ZONES OUTER LIMITS AND MARITIME BOUNDARIES

Some Southeast Asian states have either explicitly or implicitly supported the view that baselines, outer limits of maritime zones, and/or maritime boundaries can be preserved regardless of geographical change wrought by sea level rise.

- Indonesia affirmed that the principles of certainty, security and predictability and the preservation of rights and obligations should be maintained, and that “charts or lists of geographical coordinates of baselines that have been deposited with the Secretary-General pursuant to Article 16 (9) and 47 (9) of UNCLOS shall continue to be relevant.”¹⁶⁷
- Malaysia shared the view with the majority of states that “maritime baselines, limits and boundaries should be fixed in perpetuity regardless of sea level rise.”¹⁶⁸
- The Philippines cautioned against endorsement of ambulatory baselines without state practice and *opinio juris*.¹⁶⁹ It also expressed the view that the various issues related to SLR, including the preservation of the affected states’ rights for maritime areas, must be approached on the basis of “legal stability, security, certainty and predictability in international law” and that an analogous principle to the principle of *uti possidetis juris* could be considered in favour of permanent baselines.¹⁷⁰ Notably, it also stated that “any adjustment of the baselines should result in expansion rather than diminution of our maritime zones” and that “erosion of coastlines and inundation of features as a result of SLR, for example, should not affect the baselines that the State has established”. Additionally, it stated that in accordance with Article 7 (2) of UNCLOS, there is no need to change the baselines if the regression of the coastline would already result in a reduction of maritime zone areas.¹⁷¹
- Thailand stated that “in order to maintain peace, stability and friendly relations among States, their rights in relation to maritime zones and boundaries as guaranteed by UNCLOS must be protected.”¹⁷² It also affirmed that maritime boundaries already established shall be final and not affected by SLR.¹⁷³
- Vietnam stated that any approaches to address the implications of SLR “should ensure the stability and security in international relations, including the legal stability, security, certainty and predictability, without involving the question of amending and/or supplementing [UNCLOS].”¹⁷⁴ It also emphasised the importance of ensuring the stability of maritime borders.¹⁷⁵

- While Singapore and Timor-Leste did not make any explicit statement on permanent baselines and outer limits of maritime zones, both countries are part of AOSIS, which explicitly stated in 2021 that there is no obligation to review or update charts or lists of geographical coordinates once deposited with the UN, and that maritime zones, rights, and entitlements shall continue to apply.¹⁷⁶ Singapore also said that maritime boundary delimitation treaties and decisions of international courts or tribunals should not be easily reopened but that each treaty needs to be interpreted in their context.¹⁷⁷

The use of the terms *stability*, *certainty* and *security* in the submissions of states to the Sixth Committee has been described as open to different interpretations and should not automatically translate to support for the preservation of baselines, outer limits and maritime boundaries in the face of SLR.¹⁷⁸ However, it was also observed that the statements in the Sixth Committee by states affected by SLR suggested that by “stability” they meant the need to preserve the baselines and the limits of maritime zones.¹⁷⁹

THE ROLE OF EQUITY

Both the Philippines and Singapore referred to the importance of equity in shaping solutions to the issue of SLR. The Philippines observed that “[e]cological equity as a principle is key: no state should suffer disproportionately from effects of climate change affecting all.”¹⁸⁰ Singapore observed:

A workable way forward for the international community could be to take into account the different equities that may apply in varying circumstances and ensure that the balance of rights and obligations under the Convention is preserved. We think that the principle of equity could be particularly relevant when considering the impact of climate change-induced sea level rise on the development needs of Small Island Developing States. In addition, these considerations may operate differently depending on the types of maritime zones and the rights exercisable within them, the types of baselines involved, whether the areas in question involve overlapping entitlements, and the extent to which the interests of third States and the freedom of navigation are engaged.¹⁸¹

As observed by the ILC SLR Study Group, equity alludes to both the idea of justice or fairness and consequently “flexibility to ensure justice where strict rules application of rules may produce inequitable results.”¹⁸² The Philippines and Singapore’s statements highlight the inequity on ambulatory interpretations of UNCLOS on small island developing states and low-lying coastal developing states. Singapore’s statement in particular emphasises the merits of a contextual approach to determining whether the preservation of baselines and outer limits is warranted in the face of climate change-induced SLR.



IMPLICATIONS OF SLR FOR MARITIME SECURITY OF SOUTHEAST ASIAN STATES

As argued in the Introduction, maritime security includes an interstate dimension concerned with overlapping claims and entitlements to maritime space.

The absence of jurisdictional clarity impedes effective utilisation of maritime resources, increases tension between states and their respective naval or law enforcement authorities, and undermines efforts to address traditional maritime security threats including piracy and armed robbery at sea, terrorism, illegal, unreported and unlicensed (IUU) fishing, and other maritime crime. For Southeast Asian states, there is increasing convergence on the idea of maritime security as “a comprehensive concept that encompasses all risks to the prosperity of the state and nation at sea”, including “state, non-state and environment threats,”¹⁸³ as well as interstate disputes relating to maritime entitlement and delimitation.¹⁸⁴

SLR will inevitably result in physical changes to the coastlines of Southeast Asian states, although they arguably do not face the same degree of existential threats that Pacific Island and small island developing states do with the complete inundation of territory and potential loss of statehood. Analysis of the implications of SLR for maritime jurisdictional clarity of Southeast Asian states (and consequent implications for maritime security) will largely depend on whether an ambulatory interpretation of UNCLOS is adopted, or whether it is accepted that UNCLOS allows the preservation of unilateral limits and maritime boundaries regardless of the geographical change wrought by climate change-induced SLR.

IMPLICATIONS OF AMBULATORY INTERPRETATIONS OF UNCLOS

As highlighted above, there are strong indications that there is little support from the ILA SLR Committee, the ILC SLR Study Group and states alike for the ambulatory interpretation of UNCLOS. For Southeast Asian states, like other states vulnerable to SLR, there are distinct disadvantages to ambulatory interpretations of UNCLOS. First, and particularly pertinent where no maritime boundaries with neighbouring states have been established, is the possibility that baselines and outer limits will shift landward. For example, for coastal states that have used normal baselines (i.e., Singapore, Brunei and Timor-Leste), an ambulatory interpretation would mean that a permanent inundation of coastlines and/or change to the configuration of the coast would result in normal baselines moving landward.¹⁸⁵ For coastal states that have used straight baselines such as Cambodia, Myanmar, Malaysia, Thailand and Vietnam (albeit in a manner inconsistent with UNCLOS), when base points used to construct straight baselines pursuant to Article 7 are submerged, these baselines will also have to be “recalibrated” and new ones established on the basis of “still valid exposed baselines points.”¹⁸⁶

For archipelagic states like the Philippines and Indonesia, the ambulatory interpretation of UNCLOS may also have implications for its archipelagic status. Both Indonesia and the Philippines use low-lying islands and reefs (though not low-tide elevations) in the construction of their archipelagic baselines.¹⁸⁷ To the extent that reefs are used, there are “doubts over whether coral reef structures



employed as basepoints for archipelagic baseline claims can continue growing and keep up with sea level rise, especially in the context of an increasingly warm, acidic and deoxygenating ocean.¹⁸⁸ Similarly, low-lying islands that are submerged because of SLR would also not be able to be used as a basepoint. Indonesia and the Philippines may have to redraw their baselines such that they move landwards. An even more extreme scenario is that Indonesia and the Philippines may not be able to maintain their archipelagic status if they cannot meet the distance / percentage requirements for archipelagic baselines in Article 47 (2) of UNCLOS, or if the water to the area of land ratio exceeds 9:1 under Article 47 (1).¹⁸⁹

Second, the landward shift of baselines will have consequent shifts in the outer limits of the territorial sea, contiguous zone, EEZ, and continental shelf, with the exception of continental shelf limits that have been established permanently in accordance with Article 76 (9) of UNCLOS. To date, only the Philippines has permanently described the outer limits of its extended continental shelf in Benham Rise. If maritime zones move landwards, this could further exacerbate the lack of jurisdictional clarity in certain pockets of Southeast Asian waters, threaten the security interests of Southeast Asian states in what they previously considered internal waters, territorial seas or archipelagic waters, undermine their ability to exploit resources in areas that have previously been considered territorial seas, EEZs and continental shelves, and compromise their authority to regulate navigation and other activities of third states in maritime zones in which they previously had rights.¹⁹⁰

Third, ambulatory interpretations of UNCLOS may create “perverse incentives to artificially preserve baselines.”¹⁹¹ Singapore, Indonesia, Thailand and Vietnam have stated they have considered and/or are considering physically

maintaining their baselines through coastal protection work or other infrastructure. While this is permitted under UNCLOS, it comes at a high cost not available to all Southeast Asian states.¹⁹² It also risks exacerbating existing tensions over land reclamation activities, either because such activities are perceived as encroaching into another state’s maritime zones or because they may result in transboundary harm to the marine environment.¹⁹³ In this regard, UNCLOS courts and tribunals have consistently affirmed that while physical or artificial conservation / maintenance of the coast or offshore features are permitted, any such activities are subject to the robust marine environmental obligations under Part XII of UNCLOS.¹⁹⁴ These include the duty to cooperate, the duty to exchange information on activities that may have a transboundary impact, and the obligation to conduct environmental impact assessments.¹⁹⁵

Fourth, if ambulatory interpretations of maritime boundaries that have not been explicitly described as “permanent” are endorsed (which admittedly seems unlikely), the certainty and stability resulting from such boundaries (many of which are the result of decades of negotiations) in Southeast Asia may be impacted.¹⁹⁶ Ambulatory interpretations of maritime boundaries raise the possibility that if the physical configuration of the coasts changes, one party may seek to redraw an established boundary, which would exacerbate tensions and jurisdictional uncertainty. Ambulatory interpretations may also introduce complex factors in the negotiations of maritime boundary agreements as states may seek to maximise claims by arguing that the coast or the basepoints of other states will be impacted by SLR, and this should be taken into account.¹⁹⁷

IMPLICATIONS OF THE PRESERVATION OF UNILATERAL LIMITS AND BOUNDARIES

Given the above potential implications of ambulatory baselines, limits, and boundaries, it is unsurprising that at least seven out of the ten Southeast Asian states that will be impacted by SLR have expressed some form of support (albeit cautiously) for an interpretation of UNCLOS that favours the preservation of baselines, outer limits and maritime boundaries. *Prima facie*, the adoption of this interpretation will strengthen jurisdictional certainty in Southeast Asian maritime spaces. However, the ability of Southeast Asian states to preserve baselines and outer limits in the face of geographical change caused by climate change-induced SLR is not straightforward, due to the complex coastal geography and overlapping claims that characterise certain areas of Southeast Asian waters.

Taking the common elements of the statements of the Pacific Island states, AOSIS, the ILA and the ILC Study Group, it appears that there are two minimum elements that must be satisfied before states can rely on the permanency of baselines and outer limits: (1) they must be established in accordance with UNCLOS and (2) they must be established and notified to the UN SG in accordance with UNCLOS.

Southeast Asian states that rely on normal baselines (Brunei, Singapore and Timor-Leste) have currently no obligations to notify the UN SG under UNCLOS: will they now be obliged to notify the UN SG by depositing charts or coordinates in order to preserve baselines and outer limits?

For Southeast Asian states whose baselines have been the subject of objections and protests from other states, the preservation of baselines and outer limits raises even more complex questions on what it means for those “to

be made in accordance with UNCLOS.” Southeast Asian states whose straight baselines have been protested by other states due to noncompliance with Article 7 of UNCLOS may not be able to preserve them. Any attempts to do so would certainly continue to be opposed by other states and can also be challenged under UNCLOS Part XV dispute settlement mechanisms.¹⁹⁸ This raises another issue: what if baselines and outer limits comply with UNCLOS requirements but are still subject to protests and objections from other states because they overlap with their maritime claim (the basis of Timor-Leste’s objection to Indonesia’s archipelagic baselines), or because the baselines were drawn around features that were subject to a sovereignty dispute (the basis of China’s objection to the Philippines’ archipelagic baselines)? How would such objections impact an assessment of whether these baselines and outer limits were made lawfully in accordance with UNCLOS? Equally as important is the question of *who* makes an assessment of whether baselines and outer limits are made in accordance with UNCLOS, especially given that the UN SG presently does not review their deposit to determine this compliance.¹⁹⁹ Underlying these concerns is the need to devise rules that mitigate the potential for excessive claims that disproportionately impact other states or the interests of the international community.

These issues (which will certainly be considered in any future developments on the effect of SLR on baselines and outer limits) highlights the importance of *maritime boundaries* for Southeast Asian states. Southeast Asian states can avoid the thorny issues raised by baseline and outer limit claims by focusing on the conclusion of maritime boundaries in presently undelimited areas, where basepoints are a subject of bilateral or trilateral negotiations and can be ignored or taken into consideration, as the case may be.

CONCLUSION

The potential effect of SLR on baselines, unilateral limits and boundaries can undermine the stability and security of all states that have a coast and depend on the oceans for their security and economic survival. Pacific Island states and small island developing states (SIDS) have been the driving force in pushing the legal developments on this issue, and the initial responses of the international community have been inevitably shaped by the particular vulnerabilities of these regional groupings. Indeed, the seriousness of the existential threat to Pacific Island states and SIDS, the dependence of their populations on the oceans for their livelihoods, and the fact that they are the least responsible for GHG emissions that cause SLR have rightly galvanised states to give increasing support to legal positions that facilitate an equitable outcome.

Southeast Asian states are also seriously impacted by SLR, albeit not in the existential way that Pacific Island states and SIDS are. They do face the potential reduction in maritime entitlement from their mainland coasts and significant impacts on their security and economic interests. SLR has the potential to exacerbate the existing lack of jurisdictional clarity in certain areas, and it would accordingly be in the interest of Southeast Asian states to mitigate this by preserving unilateral limits and maritime boundaries in response to geographical changes caused by SLR. To this end, Southeast Asian states may wish to consider ensuring that their baselines are in conformity with UNCLOS, to minimise any objections that non-UNCLOS compliant baselines may raise. In addition, the prospect of SLR and the consequent changes to the physical coast also means that there is an added urgency for Southeast Asian states to conclude their maritime

boundaries in undelimited areas. It would be beneficial if new boundary agreements expressly stated the intention to be permanent even if there are physical changes to the coast due to climate change-induced SLR, and also specified the exact geographical coordinates and geodetic datum to be used.

This is easier said than done and challenges remain. The existence of non-UNCLOS compliant baselines, overlapping claims and undelimited areas (some of which are the products of intractable disputes) means that being able to legally preserve their unilateral limits and maritime boundaries is not a straightforward solution as it is for the Pacific Island states and SIDS. While there is increasing convergence between certain Southeast Asian states in their support for the preservation of unilateral limits and maritime boundaries, there are also nuances in their respective stated positions, which underscore the different national interests that Southeast Asian states have. While it has also been suggested that Southeast Asia and the Pacific Islands “unite to advocate for fixed maritime boundaries as sea level rise,”²⁰⁰ there are presently no indications that Southeast Asian states will act collectively as the Pacific Island States have done. The overlapping claims between Southeast Asian states and the prospect of objections to the preservation of unilateral limits, along with divergent national interests may hinder cooperation on this issue. Nonetheless, it is imperative that Southeast Asian states at least begin discussing the issues raised by SLR with each other given the collective risk that SLR poses to this region that is exceptionally dependent on the oceans for its economic success and security.

Endnotes

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- 5 Victor Prescott and Clive Schofield, *The Maritime Political Boundaries of the World*, 2nd Edition (Leiden: Martinus Nijhoff, 2005), 217.
- 6 ASEAN Leaders’ Statement on the Application of Timor-Leste for ASEAN Membership, 40th and 41st ASEAN Summits and Related Summits, Kingdom of Cambodia (2022). The ten ASEAN member states are Brunei, Cambodia, Laos, Malaysia, Myanmar, Indonesia, the Philippines, Singapore, Thailand and Vietnam.
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- 8 Johnston and Valencia, “Pacific Ocean Boundary Problems,” 66.
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- 12 PCC Sixth Assessment Report (AR6), Synthesis Report, Summary for Policymakers, 19.
- 13 Indra Overland, *Impact of Climate Change on ASEAN International Affairs: Risks and Opportunity Multiplier*, Norwegian Institute of International Affairs and Myanmar Institute of International and Strategic Studies, November 2017, 2; Ben Horton, “Southeast Asia is at the frontline of the climate emergency. It is not too late to act,” *Today*, 18 August 2021, <https://www.todayonline.com/commentary/southeast-asia-frontline-climate-emergency-it-not-too-late-act>; <https://www.straitstimes.com/singapore/south-east-asian-coastal-cities-sinking-fastest-could-worsen-impacts-of-sea-level-rise-study>; ASEAN Secretariat, *ASEAN State of Climate Change Report*, October 2021, 37.
- 14 Cheryl Tan, “Southeast Asian coastal cities sinking the fastest, could worsen impacts of sea level rise: Study,” *The Straits Times*, 20 September 2022, <https://www.straitstimes.com/singapore/south-east-asian-coastal-cities-sinking-fastest-could-worsen-impacts-of-sea-level-rise-study>.
- 15 See generally IPCC, 2019, “Summary for Policymakers”, in *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* (Cambridge University Press, 2019), 3–35.
- 16 The connection between SLR and security is being increasingly recognized in international forums: see, for example, “BOE Declaration on Regional Security”, 5 September 2018, <https://www.forumsec.org/2018/09/05/boe-declaration-on-regional-security/>; “Open Debate on Sea-Level Rise and Its Implications for International Peace and Security,” <https://www.securitycouncilreport.org/whatsinblue/2023/02/open-debate-on-sea-level-rise-and-its-implications-for-international-peace-and-security.php>; Letter dated 2 February 2023 from the Permanent Representative of Malta to the United Nations addressed to the Secretary-General, 2 February 2023, S/2023/79.
- 17 Snjolaug Arnadóttir, *Climate Change and Maritime Boundaries: Legal Consequences of Sea Level Rise* (Cambridge University Press, 2022), 11. The exception is UNCLOS, art. 7 (2), International Law Commission (ILC), *Sea-level rise in relation to international law*, First Issues Paper by Bogdan Aurescu and Nilufer Oral, Co-Chairs of the Study Group on sea-level rise in relation to international law, 28 February 2020, A/CN.4/740, para. 104 (a) (ILC Study Group FIP); Nilufer Oral, “UNCLOS and Sea Level Rise,” *Marine Policy* 149 (2023): 1, 4.
- 18 Rebecca Strating and Joanne Wallis, “Maritime Sovereignty and Territorialisation: Comparing the Pacific Islands and the South China Sea,” *Marine Policy* 141 (July 2022) 105110; Davor Vidas and David Freestone, “Legal Certainty and Stability in the Face of Sea Level Rise: Trends in the Development of State Practice and International Law Scholarship on Maritime Limits and Boundaries,” *International Journal of Marine and Coastal Law* 37 (2022): 673.
- 19 The implications of SLR on baselines, maritime zones and boundaries under UNCLOS is one of the many issues related to SLR that the International Law Association (ILA) and the ILC are studying. For ILA, see https://www.ila-hq.org/en_GB/committees/international-law-and-sea-level-rise; for ILC, see https://legal.un.org/ilc/guide/8_9.shtml.
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- 21 Lea Brilmayer and Natalie Klein, “Land and Sea: Two Sovereignty Regimes in Search of a Common Denominator,” *New York University Journal of International Law and Politics* 33 (2000–2001): 703.
- 22 For an overview of 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,” *German Yearbook of International Law* 57 (2014): 1.
- 23 1909 *Grisbadarna Case* found that maritime territory constituted “an inseparable appurtenance of the land territory, which automatically forms part of ceded territory.” *Grisbadarna Case* (Norway v Sweden), Arbitral Award of 23 October 1909, RIAA XI, 155, 159. The 1951 *Anglo-Norwegian Fisheries* similarly recognized that “it is the land which confers upon the coastal State a right to the waters off its coasts.” *Fisheries Case* (United Kingdom v. Norway), Judgment of 18 December 1951, ICJ Rep 1951, 116, 133.
- 24 1969 *North Sea Continental Shelf Cases* (Federal Republic of Germany/Denmark; Federal Republic of Germany/Netherlands), Judgment of 20 February 1969, ICJ Rep 1969, 3, para. 96; *Aegean Sea Continental Shelf* (Greece v. Turkey), Jurisdiction, Judgment of 19 December 1978, ICJ Rep 1978, 3, para. 86.
- 25 Cases subsequent to the adoption of the 1982 UNCLOS affirmed that the sole basis of a coastal state’s entitlement to the continental shelf exists because of sovereignty over land territory: See *Maritime Delimitation and Territorial Questions between Qatar and Bahrain* (Qatar v. Bahrain), Judgment of 16 March 2001, ICJ Rep 2001, 40, para. 185; *Maritime Delimitation in the Black Sea* (Romania v. Ukraine), Judgment of 3 February 2009, ICJ Reports 2009, 61, para. 77; *Delimitation of the Maritime Boundary in the Bay of Bengal* (Bangladesh v. Myanmar), Judgment ITLOS Rep 2012, 4, para. 409.
- 26 UNCLOS, art. 14.
- 27 UNCLOS, Part II.
- 28 UNCLOS, Part IV.
- 29 UNCLOS, arts. 55, 56, 76, 77.
- 30 UNCLOS, art. 121.
- 31 See generally Tara Davenport, “Southeast Asian Approaches to Maritime Boundaries,” *Asian Journal of International Law* 4 (2014): 309.
- 32 UNCLOS, art. 6.
- 33 UNCLOS, art. 9.
- 34 UNCLOS, art. 13. (1) A low-tide elevation is a naturally formed area of land which is surrounded by and above water at low tide but submerged at high tide. Where a low-tide elevation is situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the mainland or an island, the low-water line on that elevation may be used as the baseline for measuring the breadth of the territorial sea.
- 35 *South China Sea Arbitration* (Philippines v China) (Award) PCA Case No. 2013–19, 16 July 2016, para. 311.
- 36 Arnadóttir, “Climate Change and Maritime Boundaries,” 25.
- 37 IHO Manual on Technical Aspects of the United Nations Convention on the Law of the sea – 1982, Special Publication No. 51 (5th edition, 2014); Francis Anggadi, “What States Say and Do About Legal Stability,” *International Comparative and Law Quarterly* 71 (October 2022) 767, 792–793.
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- 39 Trümpler, "Article 5," 55, 59.
- 40 Brunei's Territorial Waters Act, 15 July 2002, sections 2 and 3. Brunei noted that its baselines conform to UNCLOS, Part II, Section 2 in its preliminary information to the Commission on the Limits of the Continental Shelf (CLCS): Brunei's Preliminary Submission Concerning the Outer Limits of its Continental Shelf, 12 May 2009, 3.
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- 43 UNCLOS, art. 11; ILA, "Baselines under the International Law of the Sea," Sofia Conference 2012 (ILA Baselines Report 2012), 28.
- 44 Clive Schofield and Andi Arsana, 'Indonesia-Singapore' Report No. 5-11 (3), in Coalter Lathrop (ed), *International Maritime Boundaries* (Brill 2016), 4827.
- 45 See, for example, Shannon Teoh, "Singapore reiterates that extension of Johor Bahru port limits encroaches into Singapore territorial waters," *Straits Times*, 5 December 2018.
- 46 Maritime Borders of the Territory of the Democratic Republic of Timor-Leste, National Parliament Law No. 7/2002, 20 May 2002, art. 3.
- 47 Timor-Leste's Maritime Borders Law, art. 1 (g).
- 48 *Alleged Violations of Sovereign Rights and Maritime Spaces in the Caribbean Sea* (Nicaragua v. Colombia), Judgment, 21 April 2022, para. 241.
- 49 UNCLOS, art. 7 (1).
- 50 UNCLOS, art. 7 (3).
- 51 JR Victor Prescott, *The Maritime Political Boundaries of the World* (Methuen, London, 1985), 64.
- 52 *Qatar v. Bahrain*, para. 212; *Nicaragua v. Colombia*, para. 234.
- 53 Cambodia's Decree of the Council of State of 13 July 1982, art. 2.
- 54 Maritime Zone Notifications (MZN) 159 of 2 August 2022. Prior to 2022, Malaysia had not claimed straight baselines but issued a map in 1979 which suggested that it employed a system of straight baselines inconsistent with UNCLOS.
- 55 Territorial Sea and Maritime Zones Law 1977; Maritime Zone Notification 12 of 27 January 1997; Maritime Zone Notification 64 of 23 December 2008; Myanmar Territorial Sea and Maritime Zones Law, The Pyidaungsu Hluttaw Law No. 14, 2017, 17 July 2017.
- 56 Announcement of the Office of the Prime Minister, 11 June 1970; Announcement of the Office of Prime Minister concerning straight baselines and internal waters of Thailand of 2 February 1992; Announcement of the Office of the Prime Minister concerning straight baselines and internal waters of Thailand Area No. 4 of 17 August 1992.
- 57 Statement on the Territorial Sea, the Contiguous Zone, the Exclusive Economic Zone and the Continental Shelf of 12 May 1977; Statement of 12 November 1982 by the Government of the Socialist Republic of Viet Nam on the Territorial Sea Baseline; 2012 Law of the Sea of Vietnam, art. 8.
- 58 Cambodia (the United States objected to the straight baseline claim of Cambodia (J. Ashley Roach and Robert W Smith, *Excessive Maritime Claims*, 3rd Edition [Martinus Nijhoff, 2012], 75); Malaysia (Singapore lodged its objection to Malaysia's straight baselines on the basis that such baselines were not in conformity with Article 7 of UNCLOS); Myanmar (see J. Ashley Roach and Robert W Smith, *Excessive Maritime Claims*, 3rd Edition [Martinus Nijhoff, 2012], 116-117; Communication from Bangladesh, 6 July 2009 (although note that in Bangladesh/Myanmar, baselines played a minor role in the pleadings and no role in the Tribunal's decision. The Tribunal drew an equidistance line from the low-water line indicated in the British Admiralty Chart used by the parties: ILA Baselines Report 2012, 15); Thailand (Thailand's straight baseline claim meets UNCLOS Article 7 requirements in certain segments, but in several others many of the points used to establish straight baselines are situated in locations that do not meet the relevant requirements, and the claim has consequently been the subject of official protests from the United States and by Germany on behalf of the EU. See US Limits in the Sea No. 122, Straight Baseline Claim: Thailand, 8 September 2000, 3); Vietnam (Roach and Smith, *Excessive Maritime Claims*, 99; Vietnam stated in 1994 when it ratified UNCLOS that it would review its national legislation to consider necessary amendments in conformity with UNCLOS, and Article 2 of Law of the Sea of Vietnam says that if there are differences between it and an international treaty, the provisions of the international treaty shall prevail). Also see Clive Schofield and Robert van de Poll, "Claims to Straight Baselines in the Asia-Pacific: Contrary to Customary International Law?" *Asia-Pacific Journal of Ocean Law and Policy* 7 (2022): 313.
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- 60 In the 1997 Thailand-Vietnam Delimitation (Gulf of Thailand) both countries disregarded their straight baselines for purposes of delimitation of the territorial sea, EEZ, and continental shelf boundary; in the 2000 China-Vietnam Delimitation (Gulf of Tonkin), both China and Vietnam appeared to disregard them except for a small segment around Hainan Island. See Tara Davenport, "Southeast Asian Approaches to Delimitation," 321-322.
- 61 UNCLOS, arts. 16 (1), 47 (8).
- 62 UNCLOS, art. 16 (1), 47 (9).
- 63 Maritime Zone Notification 64 of 23 December 2008; MZN (Maritime Zone Notifications) 159 of 2 August 2022.
- 64 Under the Guidelines issued by the Division for Ocean Affairs and the Law of the Sea (DOALOS), the deposit of charts or lists of geographical coordinates requires an official communication addressed to the Secretary-General and the mere existence or adoption of national legislation in relation to the limits of maritime zones, the transmission of such information to the Secretariat for information without specific the intent to deposit...cannot be interpreted as an act of deposit with the Secretary-General under [UNCLOS], even if such national or international instruments should contain charts or lists of geographical coordinates of points. DOALOS, *Guidelines on deposit with the Secretary-General of charts and lists of geographical coordinates of points under UNCLOS* (United Nations: New York, 2021), para. 9 and note 4.
- 65 UNCLOS, art. 47 (4).
- 66 UNCLOS, arts. 16 (1), 47 (9).
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- 69 US Department of State Limits in the Seas No. 141, "Indonesia: Archipelagic and other Maritime Claims and Boundaries," 15 September 2014, 3; Note from the Permanent Mission of the Democratic Republic of Timor-Leste to the United Nations, NV/MIS/85/2012, 6 February 2012.
- 70 Republic Act 9522 (An Act to Amend Certain Provisions of Republic Act No. 3046, as amended by Republic Act No. 5446 to Define the Archipelagic Baseline of the Philippines and for other purposes, 10 March 2009.
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- 72 Communication from China CML/12/2009, 13 April 2009.
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- 74 UNCLOS, arts. 76 (8) and (9).
- 75 UNCLOS, art. 75, 76 (9), 84.
- 76 UNCLOS, art. 76 (8) and (9).
- 77 Brunei (1982; Exclusive Economic Zone Proclamation, S4/1994; Royal Continental Shelf Proclamation 1954 No. S.41, 30 June 1954); Cambodia (Statement issued by the Spokesman of the Ministry of Foreign Affairs of 15 January 1978; Decree of the Council of State 13 July 1982); Indonesia (Act No. 5 of 1983 on the Indonesian Exclusive Economic Zone, 18 October 1983; Act No. 6 of 8 August 1996 regarding Indonesian Waters); Malaysia (Emergency (Essential Powers) Ordinance, No. 7, 1969; Exclusive Economic Zone Act No. 31; Continental Shelf Act 1966 - Act No. 57 of 28 July 1966, as amended by Act No. 83 of 1972); Myanmar (Myanmar Territorial Sea and Maritime Zones Law, 17 July 2017); Philippines (Presidential Decree No. 1599, 11 June 1978 establishing an EEZ; Presidential Proclamation No. 370, 20 March 1968.); Singapore (Maritime and Port Authority of Singapore Port Limit Notification 2010 (s215/2010); Exclusive Economic Zone: Text of Statement of the Ministry of Foreign Affairs on the Exclusive Economic Zone, 15 September 1980, Singapore Government Press Release 09-0/80/09/15; MFA Press Statement: International Court of Justice Awards Sovereignty of Pedra Branca to Singapore, 23 May 2008); Thailand (Royal Proclamation establishing the EEZ of the Kingdom of Thailand, 23 February 1981); Timor-Leste (Maritime Borders of the Territory of the Democratic Republic of Timor-Leste, Law No. 7/2002, 23 July 2002); Vietnam (2012 Law of the Sea Vietnam, 2 July 2012).
- 78 MZN No. 52 of 9 December 2004.

- 79 Brunei submitted preliminary information to the CLCS on 12 May 2009.
- 80 Indonesia has submitted four extended continental shelf claims to the CLCS. Indonesia's submission of 16 June 2008 to the CLCS in respect of North West of Sumatra Island was subject to a final recommendation on 28 March 2011 (see CLCS/70, 11 May 2011, para. 9). Indonesia's submissions in the area of North Papua of 11 April 2019, in the area Southwest of Sumatra on 28 December 2020, and in the area of South of Java and South of Nusa Tenggara of 11 August 2022 have not been considered yet.
- 81 A recommendation on Myanmar's submission to the CLCS on 5 Dec 2008 has been deferred by the CLCS due to the presence of a land or maritime dispute (see CLCS/64, 1 October 2009, para. 40).
- 82 The Philippines' submission on 8 April 2009 in Benham Rise was subject to a CLCS recommendation (see CLCS/74, 12 April 2012, para 35).
- 83 The CLCS deferred a recommendation on the joint submission by Malaysia and Vietnam on 6 May 2009 in the southern part of the South China Sea due to the presence of a land or maritime dispute (see CLCS/64, 1 October 2009, para. 92), after objections were raised by China and the Philippines.
- 84 A recommendation on Vietnam's submission to the CLCS of 7 May 2009 in the north part of the South China Sea was deferred due to the presence of a land or maritime dispute (see CLCS/64, 1 October 2009, para. 106).
- 85 Malaysia's partial submission to the CLCS on its extended continental shelf claim in the South China Sea on 12 December 2019 has not been subject to a final recommendation yet. Both China and the Philippines also objected to this submission.
- 86 See CLCS/70, 11 May 2011, para. 9; CLCS/74, 30 April 2012.
- 87 Maritime Zone Notification 88.2012.LOS.
- 88 The submissions of Myanmar, Malaysia and Vietnam have been the subject of protests from other states.
- 89 UNCLOS, arts. 74 and 83.
- 90 *Romania v. Ukraine*, paras. 115 – 122.
- 91 Johnston and Valencia, "Pacific Ocean Boundary Problems," 66.
- 92 See UN Treaty collection at https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=en
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- 105 *ASEAN State of Climate Change Report*, Jakarta, ASEAN Secretariat, October 2021, 26.
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- 116 Purcell, *Geographical Change*, 44.
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- 118 Purcell, *Geographical Change*, 261.
- 119 *Bay of Bengal Maritime Boundary Arbitration* (Bangladesh v. India), Case No.2010-2016, Award, PCA, 7 July 2014, para. 63.
- 120 The ILA consists of a group of independent legal experts with the aim of facilitating "the study, clarification and development of international law," through the adoption of ILA reports and resolutions. For an analysis of the work of the ILA Committees on Baselines and Sea-Level Rise, see Vidas and Freestone, "Legal Certainty and Stability," 679 – 693.
- 121 The ILC was established by the UN General Assembly as one of its subsidiary organs in order to "initiate studies and make recommendations for the purpose of...encouraging the progressive development of international law and its codification." UN Charter, art. 13 (1). For a background on the work of the ILC on SLR, see https://legal.un.org/ilc/guide/8_9.shtml and Vidas and Freestone, "Legal Certainty and Stability," 693 – 698.
- 122 Vidas and Freestone, "Legal Certainty and Stability," 699 – 700.
- 123 See, for example, the Annex to the 2018 recommendation of the Working Group on the long-term programme of work, A/73/10 at https://legal.un.org/ilc/reports/2018/english/annex_B.pdf; Arnadottir, *Climate Change and Maritime Boundaries*; Purcell, *Geographical Change*.
- 124 ILA Committee on International Law and Sea Level Rise (ILA SLR Committee), *Report on International Law and Sea Level Rise* (2018), 19 (ILA SLR Report 2018); ILA SLR Committee, *Report on International Law and Sea Level Rise* (2022), (ILA SLR Report 2022); ILC Study Group FIP; ILC *Sea-level rise in relation to international law*, Additional Paper to the First Issues Paper First Issues Paper by Bogdan Aurescu and Nilufer Oral, Co-Chairs of the Study Group on sea-level rise in relation to international law, 13 February 2023, A/CN.4/761 (ILC Study Group Additional Paper 2023).
- 125 ILA SLR Committee Resolution 5/2018.
- 126 ILC Study Group FIP, paras. 104 (e) and (f).
- 127 ILA SLR Report 2018 24; ILA SLR Committee Resolution 5/2018; ILC Study Group FIP para. 141.
- 128 ILC Study Group FIP, para. 141 (e).
- 129 ILC Study Group Additional Paper 2023, para. 82.
- 130 ILA SLR Report 2022, 7 – 19; Vidas and Freestone, "Legal Certainty and Stability," 701 – 723; ILC Study Group FIP, paras. 83 – 103; ILC Study Group Additional Paper 2023, 10 – 32.
- 131 2021 PIF Declaration on Preserving Maritime Zones in the Face of Climate Change Related Sea-Level Rise, 6 August 2021 at <https://www.forumsec.org/2021/08/11/declaration-on-preserving-maritime-zones-in-the-face-of-climate-change-related-sea-level-rise/>.
- 132 Vidas and Freestone, "Legal Certainty and Stability," 702 – 705.
- 133 Communique of the 50th Pacific Island Forum (PIF) Leaders Meeting, Tuvalu, 13 – 16 August 2019, para. 25.
- 134 BOE Declaration on Regional Security, September 2018 at <https://pacificsecurity.net/wp-content/uploads/2021/02/Boe-Declaration-on-Regional-Security.pdf>
- 135 Vidas and Freestone, "Legal Certainty and Stability," 705 – 713.
- 136 Alliance of Small Island States' Leaders Declaration 2021 at <https://www.aosis.org/launch-of-the-alliance-of-small-island-states-leaders-declaration/>.

- 137 Dhaka-Glasgow Declaration of the Climate Vulnerable Forum (CVF), 2 November 2021, at <https://thecvf.org/our-voice/statements/dhaka-glasgow-declaration-of-the-cvf/>. The CVF consists of states from Africa, Asia, the Caribbean, Latin America, the Middle East and the Pacific.
- 138 Declaration of 7th Meeting of the Ministers in Charge of Fisheries and Aquaculture of the Organization of African, Caribbean and Pacific States, 8 April 2022 at https://www.oacps.org/wp-content/uploads/2022/05/Declaration_7thMMFA_EN.pdf.
- 139 See ILA SLR Report 2018, 18 – 19.
- 140 See, for example, Caron, “What makes Climate Change Worse,” 639 – 652; Clive Schofield, “Shifting Limits? Sea Level Rise and Options to Secure Maritime Jurisdictional Claims,” *Carbon and Climate Law Review* (2009) 405, 415; Purcell, *Geographical Change*, 284.
- 141 See, for example, ILC, Draft Conclusions on Identification of Customary International Law, with commentaries, A/73/10.
- 142 Vienna Convention on the Law of Treaties (VCLT), arts. 31 (3) (a) and (b).
- 143 ILC Study Group Additional Paper 2023, paras. 89 – 97.
- 144 *ASEAN State of Climate Change Report*; ASEAN Leader’s Declaration on the Blue Economy, Brunei Darussalam, 26 October 2021 where the ASEAN Leaders recognized the challenges presented by “non-traditional threats as well as other challenges, including climate change and sea-level rise.”
- 145 Indonesia’s Statement to the Sixth Committee, 5 November 2019; Malaysia’s Statement to the Sixth Committee, 5 November 2019, para. 24; Philippines’ Statement to the Sixth Committee, 5 November 2019; Singapore’s Statement to the Sixth Committee, 31 October 2019; Thailand’s Statement to the Sixth Committee, 1 November 2019, para. 11; Vietnam’s Statement to the Sixth Committee, 5 November 2019.
- 146 See discussion in 3.1 above.
- 147 Philippines’ Statement to the Sixth Committee, 18 July 2022.
- 148 Anggadi, “What States Say and Do,” 795.
- 149 Table 2 (1971 Indonesia-Australia (Papua New Guinea) Continental Shelf Delimitation (New Guinea and Arafura Sea), preamble; 1974 Indonesia-India Continental Shelf Delimitation (Andaman Sea), preamble; 1980 Indonesia-Papua New Guinea Delimitation (Pacific Ocean), preamble; 1978 India-Thailand Continental Shelf Delimitation (Andaman Sea), preamble; 1980 Myanmar-Thailand Delimitation (Andaman Sea), preamble.
- 150 Table 2 (Agreement between Australia and Indonesia Concerning certain boundaries between Papua New Guinea and Indonesia, 12 February 1973, arts. 1 and 2).
- 151 Table 2 (1997 Treaty between the Government of Australia and the Government of the Republic of Indonesia establishing an EEZ boundary and Certain Seabed Boundaries, 14 March 1997, art. 7 (1)).
- 152 Indonesia, A/C.6/72/SR.24 (2017), para. 126; Indonesia, A/C.6/73/SR.24 (2018) para. 64.
- 153 Indonesia’s Statement to the Sixth Committee, 5 November 2019; Indonesia’s Statement to the Sixth Committee, October 2021.
- 154 Malaysia’s Statement to the Sixth Committee, 29 October 2021.
- 155 Philippines’ Statement to the Sixth Committee, 1 November 2021.
- 156 Vietnam’s Statement to the Sixth Committee, 2021.
- 157 UNCLOS, art. 11; ILA Baselines Report 2012, 28.
- 158 *Philippines v. China*, para. 511.
- 159 ILC Study Group FIP, para. 99.
- 160 Singapore’s Statement to the Sixth Committee, 31 October 2019.
- 161 Singapore Note to the Office of Legal Affairs of the UN, Note No. SMUN054/2020.
- 162 Schofield and Freestone, “Archipelagic States,” 373.
- 163 Nguyen Hong Thao, “Sea-Level Rise and the Law of the Sea in the Western Pacific Region,” *Journal of East Asia and International Law*, 13 (1) (2020): 121, 125; Asian Development Bank, *Vietnam: Climate Change Risk Profile*, 17 at <https://www.adb.org/publications/climate-risk-country-profile-viet-nam>.
- 164 Thailand’s Third National Communication 2018 at <https://unfccc.int/sites/default/files/resource/Thailand%20TNC.pdf?download>
- 165 Thailand’s Statement at Sixth Committee, 1 November 2021.
- 166 Malaysia’s Statement at Sixth Committee, 28 October 2022.
- 167 Indonesia’s Statement at Sixth Committee, October 2021.
- 168 Malaysia’s Statement at Sixth Committee, 29 October 2021.
- 169 Philippines Statement at the Sixth Committee, 1 November 2021.
- 170 Philippines Statement at the Sixth Committee, 28 October 2022.
- 171 Philippines’ Inputs to the ILC’s Subtopic of Sea Level Rise in Relation to International Law, 18 July 2022.
- 172 Thailand’s Statement at the Sixth Committee, 1 November 2021.
- 173 Thailand’s Statement at the Sixth Committee, 1 November 2021; Thailand’s Statement at the Sixth Committee, 28 October 2022.
- 174 Vietnam’s Statement at the Sixth Committee, 2021.
- 175 Vietnam’s Statement at the Sixth Committee, 2022.
- 176 Section 3.1 above.
- 177 Singapore’s statement to the Sixth Committee, 28 October 2021.
- 178 2021 Annual Report of the ILC, Chapter IX, para. 266; ILC Study Group Additional Paper 2023, para. 84.
- 179 2021 Annual Report of the ILC, Chapter IX, para. 266.
- 180 Philippines Statement at the Sixth Committee, 1 November 2021.
- 181 Singapore Statement at the Sixth Committee, 28 October 2021.
- 182 ILC Study Group Additional Paper 2023, para. 183 (a).
- 183 Bradford, “Maritime Security.”
- 184 Vu Hai Dang, “Interstate Disputes as an Evolving Threat to Southeast Asia’s Maritime Security,” AMTI Update, 16 Nov 2022 at <https://amti.csis.org/interstate-disputes-as-an-evolving-threat-to-southeast-asias-maritime-security/>; Scott Edwards, “The Role of Southeast Asian States.”
- 185 ILC Study Group FIP, paras. 25 – 26; Purcell, *Geographical Change*, 44.
- 186 Arnadottir, *Climate Change and Maritime Boundaries*, 21.
- 187 Schofield and Freestone, “Archipelagic States,” 386 – 387.
- 188 Schofield and Freestone, “Archipelagic States,” 381.
- 189 ILC Study Group FIP, para. 76.
- 190 ILC Study Group FIP, paras. 76, 172 – 190; Soons, “The Effects of Sea Level Rise,” 369 – 370. ILC
- 191 ILA SLR Report 2018, 14; ILC Study Group FIP, para. 217.
- 192 ILA SLR Committee Report, 14, ILC FIP, para. 217.
- 193 See, for example, the disputes between Malaysia and Singapore on the latter’s reclamation activities, including Malaysia’s Statement at Sixth Committee, 28 October 2022, where it expressed concern about land reclamation and artificial islands.
- 194 *Case Concerning Land Reclamation by Singapore in and Around the Straits of Johor* (Malaysia v. Singapore), ITLOS Provisional Measures Order, 8 October 2003, paras. 91 – 99; *Philippines v. China* (2016), paras. 939 – 993.
- 195 *Case Concerning Land Reclamation by Singapore in and Around the Straits of Johor* (Malaysia v. Singapore), ITLOS Provisional Measures Order, 8 October 2003, paras. 91 – 99; *Philippines v. China* (2016), paras. 939 – 993.
- 196 See Section 2.5 above.
- 197 For example, in the *Bangladesh v. India* delimitation proceedings before an Annex VII arbitral tribunal, Bangladesh argued that the potential effects of SLR in the Bay of Bengal is that low-tide elevations and basepoints chosen by India may be submerged, although this argument was ultimately rejected by the tribunal on the basis that the issue was not the future impact of climate change but whether the choice of basepoints is feasible in the present case and at the present time. See *Bangladesh v. India*, paras. 213 – 215.
- 198 See generally, ILA SLR Report 2018, 15 – 16; Schofield and van de Poll, “Claims to Straight Baselines,” and *Nicaragua v. Colombia* (2022) where the ICJ affirmed that Nicaragua’s straight baseline claim was contrary to UNCLOS even though Colombia was not directly impacted by the claim. The United States has been the most prominent objector to excessive maritime claims but has recently said that “the United States will work with other countries toward the goal of lawfully establishing and maintaining baselines and maritime zone limits and will not challenge such baselines and maritime zone limits that are not subsequently updated despite sea-level rise caused by climate change.”
- 199 Note by Secretariat, *Practice of Secretary-General in respect of the deposit of charts and/or lists of geographical coordinates of points under UNCLOS*, SPLOS/30/12, 13 April 2020, para. 8.
- 200 Kate Clayton, “Shore Thing: Climate Change and Maritime Security Intrinsically Linked,” Lowy Institute, 8 April 2022, at <https://reliefweb.int/report/indonesia/shore-thing-climate-change-and-maritime-security-intrinsically-linked>.



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