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Challenges and opportunities in the delimitation of Indonesia's maritime boundaries: a legal and technical approach

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CHALLENGES AND OPPORTUNITIES IN THE DELIMITATION OF INDONESIA'S MARITIME BOUNDARIES: A LEGAL AND TECHNICAL APPROACH

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CERTIFICATION

I hereby declare that this thesis – submitted in fulfilment of the requirements for the award of the degree Doctor of Philosophy from the University of Wollongong – is wholly my own work unless otherwise referenced or acknowledged. This thesis has not been submitted for qualifications at any other academic institution.

I Made Andi Arsana,

12 May 2014.

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DEDICATION

For Asti, Lita and Indonesia

ABSTRACT

Indonesia officially recognises ten neighbours with which maritime boundaries are required. The ten neighbours are, clockwise from the north west, India, Thailand, Malaysia, Singapore, Vietnam, Philippines, Palau, Papua New Guinea, Australia and Timor-Leste (East Timor). At the time of writing, Indonesia has, either fully or partially, signed 17 maritime boundary agreements with seven neighbours and no maritime boundaries with Philippines, Palau and Timor-Leste. There are more than 20 segments of maritime boundaries to be delimited in the future.

It is evident that pending maritime boundaries between Indonesia and its neighbours have repeatedly cause issues and tensions in international relations between Indonesia and its neighbours. Incidents around maritime boundary areas have taken place from time to time and remind us that settled maritime boundaries are required. Interestingly, such incidents take place not only in areas where maritime boundaries are missing but also in areas where maritime boundaries have apparently, formally at least, been settled. This indicates that settling maritime boundaries is not the end of the story. Administration and management are essential for good ocean governance in the future for Indonesia.

The delimitation of Indonesia's maritime boundaries with its neighbours in accordance with the international law of the sea is required. This thesis provides options of maritime boundary between Indonesia and its neighbours by critically analysing three relevant case studies which are located in the Sulawesi Sea, Singapore Strait and Malacca Strait. The most recent trends in delimitation methods, which particularly the three-stage approach, were used in analysing options of delimitation. The approach consists of three steps, which is the construction of a provisional line based on equidistance, followed by adjusting the provisional line by considering relevant circumstances and lastly by conducting a disproportionality test to ensure that the delimitation does not cause inequality to parties in question. This thesis does not come up only with options of maritime boundary delimitation between Indonesia and its neighbours but also critical evaluation on the three-stage approach which may be considered as one of novel contributions of the research.

LIST OF ACRONYMS

ABLOS	Advisory Board on the Law of the Sea
AL	Angkatan Laut (Navy)
ASEAN	Association of South East Asian Nations
ASL	Archipelagic Sea Lane
BAC	British Admiralty Chart
Bakorkamla	*Badan Koordinasi Keamanan Laut* (Coordinating Agency for Maritime Security)
Bakosurtanal	*Badan Koordinasi Survey dan Pemetaan Nasional* (National Coordinating Agency for Surveys and Mapping, currently BIG)
BIG	*Badan Informasi Geospasial* (Geospatial Information Board, formerly Bakosurtanal)
BNPP	*Badan Nasional Pengelola Perbatasan* (National Agency for Border Management)
CLCS	Commission on the Limits of the Continental Shelf
CTI	Coral Triangle Initiative
Dishidros	Dinas Hidro-Oseanografi TNI Angkatan Laut (Hydro-Oceanographic Office of the Indonesian Navy)
DOALOS	Division of Ocean Affairs and the Law of the Sea
DPR	Dewan Perwakilan Rakyat (People's Representative Assembly)
ECS	Extended Continental Shelf
EEZ	Exclusive economic zone
FAO	Food and Agricultural Organisation
GNP	Gross National Product
ICJ	International Court of Justice
IHO	International Hygrographic Organization
ITLOS	International Tribunal for the Law of the Sea
IUU	Illegal Unreported Unregulated Fishing
LAT	Lowest Astronomical Tide
LOSC	Law of the Sea Convention (United Nations Convention on the Law of the Sea)
LTE	Low-tide Elevation
MFA	Ministry of Foreign Affairs
MHA	Ministry of Home Affairs
MMAF	Ministry of Marine Affairs and Fisheries
MOU	Memorandum of Understanding
PNG	Papua New Guinea
PP	*Peraturan Pemerintah* (Government Regulation)
TALOS	Technical Aspects of the United Nations Convention on the Law of the Sea
TNI	Tentara Nasional Indonesia (Indonesian Arm Force)
UN	United Nations
UNCLOS	United Nations Conference on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Agreement
US	United States
UUD	*Undang-Undang Dasar* (Constitution)

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1 INTRODUCTION

"How inappropriate to call this planet Earth when it is quite clearly Ocean"- Arthur C. Clarke[1]

1.1 Introduction

Arthur C. Clarke made a telling point concerning the proportion of water as opposed to land covering the surface of planet Earth. This thesis concerns a significant part of the world's oceans, that is, the maritime spaces associated with the world's largest archipelagic State, the Republic of Indonesia. The study provides a critical examination of the development of Indonesia's claims to maritime jurisdiction, the baselines from which its offshore claims are made, the definition of its maritime limits and opportunities and challenges relating to the delimitation of its maritime boundaries with neighbouring States, both agreed and yet to be delimited.

A particular motivation driving this study is recognition of the facts that not only are the oceans of increasing significance on a global scale in multitudinous ways but that this is especially the case for Indonesia. Indonesia is a fundamentally maritime State. Being an archipelagic State with 17,508 islands, two-thirds of Indonesia's sovereign spaces are comprised of maritime areas (see below).

Indonesia's ocean spaces are critically important to it politically, symbolically and psychologically. In particular, Indonesia's waters connect and bind together the thousands of islands that make up the Indonesian archipelago. This, in turn, can be considered as crucial to Indonesia's national identity. Indonesia's maritime spaces are, moreover, essential socio-economically as well as in terms of its national security and defence requirements. Accordingly, attaining certainty and clarity regarding the extent of Indonesia's maritime jurisdiction can be considered to be crucial and a key national priority and imperative, being essential to the realisation of the opportunities that these marine areas offer and with a view to realising optimum ocean governance.

Analogous to other coastal States, Indonesia's maritime claims overlap with its neighbours meaning that Indonesia needs to share and divide, as well as manage, its surrounding maritime areas with its neighbours. Due to its geographical location,

[1] Quoted in Lovelock, J.E. 1990. "Hands up for the Gaia Hypothesis", *Nature*, Volume 344, 100-102, at 102.

Indonesia has the potential and opportunity to establish maritime boundaries with at least ten neighbours: India, Thailand, Singapore, Malaysia, Vietnam, Palau, Papua New Guinea, Australia and Timor-Leste.[2]

While Indonesia has made significant progress in delimiting its maritime boundaries with its neighbours, much remains to be achieved and it is hoped that this thesis will help contribute to that end. Indonesia has signed 17 maritime boundary agreements with seven neighbours but more than 20 segments of maritime boundaries remain to be delimited. It is evident that pending maritime boundaries between Indonesia and its neighbours represent a root cause of uncertainties over rights and obligations regarding maritime space, as will be illustrated in this study. Such uncertainties have a proven capacity to cause diplomatic tensions with neighbours and have resulted in incidents at sea that are clearly disadvantageous to Indonesia and also its neighbours. Accordingly, the fundamental aims of the thesis are to evaluate challenges and opportunities in the delimitation of Indonesia's remaining maritime boundaries with its neighbours and to propose possible options in terms of solutions.

This introductory chapter covers the importance of oceans in general followed by the expansion of maritime claims and its implications for international maritime boundaries. The case of Indonesia will also be highlighted to provide general contextual information on Indonesia's maritime boundary issues. An outline of the thesis is also provided followed by consideration of important aspects of the research, including key aims and objectives, research approach adopted, its significance, potential contribution to the literature, scope and limitations, and concluding with a summary of the thesis structure.

1.2 The Importance of the Oceans

1.2.1 Global Context

In keeping with Arthur C. Clarke's statement, it is incontestably the case that in terms of spatial coverage the Earth is indeed essentially a planet of water.[3] The oceans, including

[2] This is Indonesia's official position that it has ten neighbours and that China is not included in this number. See for example, Oegroseno, A.H. "Indonesia's Maritime Boundaries", in Cribb, R.B. and Ford M. (eds). *Indonesia Beyond the Water's Edge: Managing an Archipelagic State*. 2009. pp. 49-58. However, there exists some uncertainty on this point and there is some possibility that Indonesia may have overlapping maritime claims, and therefore potentially require maritime boundaries, with China in the South China Sea and Federated States of Micronesia (FSM) with regards to maritime boundaries. See also subsection 1.4 of this Chapter.

inland waters such as lakes and rivers, cover approximately 72 per cent of the Earth's surface.[4] In other words, that portion of land covering the Earth's surface represents only around 30 per cent of the surface area of the globe as a whole, and it is here where the majority of human inhabitants predominantly live their lives.

The critical importance of the oceans to sustaining life, including human life and livelihoods, has been clearly recognised by the international community. For example, the United Conference on Sustainable Development (hereinafter referred to as Rio+20 Conference) asserted in 2012 through its Rio Ocean Declaration that, among other things, the "oceans are essential to supporting life on Earth and are of great economic, social, and cultural significance to all countries, including 183 coastal countries and island states."[5] This statement was one of three key statements compiled by a team of 375 ocean stakeholders from 46 countries participating at the Rio+20 Conference.

The Declaration underscored this point by stating that the oceans are "life support system of the Earth."[6] In particular, they play a critical role in maintaining the balance of gases in the atmosphere. The oceans cycle over 93 per cent of carbon dioxide (CO_2) in the atmosphere and hold more than half of all carbon that are naturally sequestered. In addition, they absorb more than 26 per cent of man-made emissions.[7] Not only do oceans absorb and neutralise emissions, they also produce oxygen for living creatures to breath. While tropical forests, for example, certainly do play a significant role in providing oxygen, it is easy to overlook the fact that the oceans are responsible for producing around 50 per cent of the world's oxygen.[8]

The oceans are also fundamental in managing the temperature of the Earth by absorbing around 80 per cent of the heat added to the global system in the last 200 years.[9] Simply put, the oceans not only perform a fundamental role in driving the global

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[3] See for example, Ann Henderson-Sellers, *Satellite Sensing of a Cloudy Atmosphere: Observing the Third Planet*, (Taylor & Francis, 1984); Stephen McCaffrey, *The Law of International Watercourses: Non- Navigational Uses*, (Oxford University Press, 2001).
[4] See, EC Hill, *Earth: The Water Planet*, (Benchmark Education Company, 2005);and Greg Roza, *Earth: The Water Planet*, (Rosen Classroom, 2006).
[5] Rio Ocean Declaration, available at, <http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SC/pdf/pdf_Rio_Ocean_Declaration_2012.pdf>, accessed on 20 July 2012.
[6] *Ibid*.
[7] *Ibid*.
[8] NOAA, *The ocean is home to the greatest diversity of major plant, animal, and microbial groups on Earth* (2012), available at <http://oceanservice.noaa.gov/facts/ocean_life.html>, accessed on 20 July 2012.
[9] Rio Ocean Declaration, See above note 5.

ocean/atmospheric system, but have made, and continue to make, a key contribution to slowing down the effects of global warming and climate change in general.

The oceans are, moreover, vital to global nutrient cycling,[10] and constitute a rich repository in terms of biodiversity, estimated to encompass around 95 per cent of the Earth's biosphere.[11] In light of the diversity and productivity of marine life in the oceans, they provide a longstanding and increasingly important source of food for human consumption. Different types of marine living resources, especially fish, have been consumed by people around the globe, including those with no direct access to the ocean. Total global fish consumption in 2010 was around 128.3 million tonnes and estimated to be around 130.8 million tonnes in 2011.[12] The oceans continue to provide a critical source of food through fisheries and aquaculture and around 540 million people are dependent on fishing industry for their livelihoods.[13] Accordingly, the oceans provide more than 4.2 billion people around the world with approximately 15 per cent of animal protein through the consumption of fisheries products. Naturally, the oceans are the place of reproduction and regeneration of living resources important to the needs of human beings. From the oceans, human beings can obtain sources of food simply by gathering what is provided by the nature. Capture fisheries, as oppose to aquaculture fisheries, for example, remain a crucially important activity to meet the need of animal protein worldwide.

The oceans, especially offshore areas are also increasingly important as a source of non-living resources, most notably seabed energy resources such as reserves of oil and gas.[14] In the context of globally rising energy demands where energy security concerns escalate and peak oil concerns arise,[15] offshore hydrocarbon resources represent a

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[10] *Ibid*.

[11] Marjo Vierros, Anne McDonald and Salvatore Arico, 'Governance of marine areas beyond national jurisdictions', (RIO+20 United Nations Conference on Sustainable Development, 14 March 2012), available from <http://ourworld.unu.edu/en/governance-of-marine-areas-beyond-national-jurisdictions/>, accessed on 20 Marc 2012.

[12] For detailed relevant statistics, see, UN Food and Agriculture Organisation (hereinafter FAO), *The State of World Fisheries and Aquaculture 2012*, available at <http://www.fao.org/docrep/016/i2727e/i2727e.pdf>, accessed on 20 May 2013.

[13] *Ibid*.

[14] Clive H. Schofield, 'Maritime Cooperation in Contested Waters: Addressing Legal Challenges in East and Southeast Asian Waters' in Clive H. Schofield (ed) *Maritime Energy Resources in Asia: Legal Regimes and Cooperation*, NBR Special Report No. 37, (Washington DC, 2012), 2.

[15] The 2013 Oil Market Report of the International Energy Agency shows that world oil demands is 90.7 million barrels per day. See, International Energy Agency (IEA), *Oil Market Report* (2013), available at <http://omrpublic.iea.org/World/Table1.xls>, accessed on 1 July 2013. See also, Nicholas A. Owen and

potential source of economic wealth for coastal States. Even though efforts to discover and utilise more renewable energy have been the focus of much recent attention, hydrocarbon resources appear certain to remain one of the keys sources of global energy supply. Indeed, rather than showing signs of decline, there are strong indications that demand is set to continue to rise.[16] Offshore hydrocarbon resources therefore remain a potential contributor to the domestic energy security of coastal States.[17] The exploration and exploitation of deeper areas, further from the coast is also likely to be made possible through the advancement of technology.[18]

The economic value of marine ecosystems is significantly high where the oceans contribute around 61 per cent of the world's total Gross National Product (GNP) in several economic sectors.[19] This is due to the fact that the transport of goods in international trading is mainly through waterways where in excess of 80 per cent of global trade is carried out by sea.[20] While enormous oceanic living and non-living resources have been discovered and utilised, it has nonetheless been suggested that the vast majority of marine species and resources remain undiscovered. Indeed, an estimated 95 per cent of the ocean remains unexplored.[21]

The advancement of technology is the key to oceanic discovery for the good of Planet Earth in the future. The advancement of science and technology enables us to explore parts of the ocean that are both deeper and further distant from shore. This provides us with a better understanding of the oceans. Such trends are likely to continue as technology improves and refines our knowledge of and capacity to access deeper waters further offshore. Indeed, it can be anticipated that 'new' marine resources will be discovered and non-traditional resource opportunities realised in the future, emphasising

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Clive H. Schofield, 'Further and Deeper: The Future of Deepwater Drilling in the Aftermath of the Deepwater Horizon Disaster' (2010) 6 (3) *International Zeitschrift*, 1-7.

[16] The 2013 Oil Market Report of the International Energy Agency shows the increase of the world oil demands from 85.4 million barrels per day in 2009 to 90.7 million barrels per day in 2013. See above note 15.

[17] For detailed quantitative analysis of relevant global and regional trends, see, International Energy Agency, *World Energy Outlook 2011.* See also, Nicholas A. Owen and Clive H. Schofield 'Disputed South China Sea Hydrocarbon Perspective' (2012), 36 *Marine Policy*, 809.

[18] Owen and Schofield, above note 15.

[19] Wold Bank, *Oceans (Vol. 1 of 2) : Issue brief (English)*. Available at <http://documents.worldbank.org/curated/en/2012/04/18010076/oceans-vol-1-2-issue-brief>.

[20] Rio Ocean Declaration provides a figure of 90 per cent while Statistics from UNCTAD reports on Review of Maritime Transport states a figure of around 80 per cent. See, Rio Ocean Declaration, above note 5, 1. See also, UNCTAD, *Review of Maritime Transport 2012* (2012), xiii, available at <http://unctad.org/en/PublicationsLibrary/rmt2012_en.pdf>, accessed on 20 June 2013.

[21] NOAA, *Ocean*, available at <http://www.noaa.gov/ocean.html>, accessed on 2 November 2012.

the value of a long-term perspective on securing national maritime spaces through the definition of maritime limits and delimitation of maritime boundaries (see below).

1.2.2 The Regional Dimension

At the regional level, the importance of ocean spaces also appears to be increasing. Intensive and increasing collaboration among States in the Asia-Pacific region in addressing ocean-related issues is an indication of this. As a pertinent example, in 2006, Indonesia proposed the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF) supported by the Philippines, Malaysia, Timor-Leste, Papua New Guinea, and Solomon Islands.[22] This accord is an indication of shared understanding on the importance of oceanic natural resources and the need to conserve them. CTI-CFF "is a multilateral partnership of six countries working together to sustain extraordinary marine and coastal resources by addressing crucial issues such as food security, climate change and marine biodiversity." It covers a triangle shaped area encompassing the aforementioned States. Even though it covers only 1.6 per cent the entire oceans, the Coral Triangle region comprises 76 per cent of all known coral species. It is also a home to 37 per cent of all known coral reef fish species and 53 per cent of the world's coral reefs. The region hosts the greatest extent of mangrove forests in the world and serves as spawning and juvenile growth areas for tuna and other globally significant commercial fish species.[23]

In the Asia-Pacific region generally the attention given to maritime space is significantly increasing, as illustrated by a growing number of maritime collaboration mechanisms in multiple forms that have been concluded among States in the region. Joint development areas (JDAs) in the Gulf of Thailand provide good examples of this type of practice.[24] For example, there are currently two JDAs in the Gulf of Thailand which are Malaysia-Thailand JDA of 1979/1990[25] and Malaysia-Vietnam JDA of

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[22] See, Coral Triangle Initiative, *About CTI-CFF*, available at <http://www.coraltriangleinitiative.org/about-us>, accessed on 20 July 2012.
[23] *Ibid.*
[24] For a comprehensive discussion on Joint Development Areas in Asia, See, Tara Davenport 'Joint Development in Asia: Lessons for Sustainable Peace in the South China Sea' (Law in a Sustainable Asia, 8th Asian Law Institute Conference, Kyushu, Japan, 26-7 May 2011), 1-40.
[25] See, 1979 MOU between Malaysia and Thailand on the Establishment of a Joint Authority for the Exploitation of the Resources of the Sea-Bed in a Defined Area; 1990 Agreement between the Government of Malaysia and the Government of the Kingdom of Thailand and Other Matters relating to the Establishment of the Malaysia-Thailand Joint Authority.

1992.[26] In addition to the two JDAs, there are also two "in principle" agreements to jointly develop hydrocarbon resources in the area, which are Cambodia-Vietnam JDA of 1982[27] and Cambodia-Thailand JDA of 2001.[28] Other JDAs are in the East China Sea including one JDA between Japan and South Korea in 1974[29] and one "in principle" consensus between China and Japan in 2008 which includes provision for joint development in the East China Sea.[30] Joint development areas in the Timor Sea are also good example of regional maritime collaboration. These include agreement on Joint Development Zones between Australia and Indonesia in 1989[31] and Joint Development Petroleum Area between Australia and Timor-Leste.[32] It should be noted, however, that all of these cooperative arrangements are temporary, interim measures pending the delimitation of maritime boundaries.

The counterpoint to this trend towards maritime cooperative mechanisms has been enhanced tensions over overlapping and conflicting maritime claims as well as access to the valuable marine resources understood or presumed to exist within such areas of disputed waters. This is also indicative of the increasing importance placed on jurisdiction over ocean spaces by coastal States. Increasing tension amongst the South China Sea claimant States represents a good example that States around the region view the importance of ocean space is now higher than ever.[33] While Indonesia is not a claimant State in the South China Sea territorial disputes, it is worth observing that this does not mean that it is free from the likely impacts of any potential conflict in the

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[26] See, 1992 Memorandum of Understanding between Malaysia and the Socialist Republic of Vietnam for the Exploration and Exploitation of Petroleum in a Defined Area of the Continental Shelf Involving the Two Countries. Available at <http://cil.nus.edu.sg/1992/1992-memorandum-of-understanding-between-malaysia-and-the-socialist-republic-of-vietnam-for-the-exploration-and-exploitation-of-petroleum-in-a-defined-area-of-the-continental-shelf-involving-the-two-c/>. Accessed on 20 November 2013.

[27] 1982 Agreement on Historic Waters of Vietnam and Kampuchea.

[28] 2001 MOU on the Area of Overlapping Maritime Claims to the Continental Shelf; See also. Davenport, above note 24, pp.11-22.

[29] 1974 Agreement Concerning Joint Development of the Southern Part of the Continental Shelf adjacent to the Two Countries.

[30] 2008 Principled Consensus on the East China Sea Issue; See also, Davenport, above note 24, pp. 22-29.

[31] Treaty between Australia and the Republic of Indonesia on the Zone of Cooperation in an Area between the Indonesian Province of East Timor and Northern Australia [Timor Gap Treaty].

[32] Timor Sea Treaty between the Government of East Timor and the Government of Australia; See also, Davenport, above note 24, pp. 29-34.

,[33] A research project on "Marine Energy and Resources in Asia" funded by the National Bureau of Asian Research, US, shows the indication of the increasing attention. For the reports, see Schofield, 2012, above note 14; Clive H. Schofield (ed.) *Maritime Energy Resources in Asia: Energy and Geopolitics*, NBR Special Report No. 35, (Washington DC, 2011); Clive H. Schofield, Ian Townsend-Gault, Hasjim Djalal, Ian Storey, M Miller, and Tim Cook *From Disputed Waters to Seas of Opportunity: Overcoming Barriers to Maritime Cooperation in East and Southeast Asia*, NBR Special Report No.35, (Washington DC, 2011).

region. Further, a map produced by the People's Republic of China at a workshop in 1993 showed China's "historic waters" overlapping with the potential EEZ of Natuna Islands.[34] This suggests that Indonesia could potentially be "drawn into the fray" so that it can, in fact, be considered a party to South China Sea disputes, albeit obliquely.[35] It has to be made clear, however, that this dispute concerns maritime jurisdiction only and does not in any way concern sovereignty. That said, there remains some prospect of Indonesian involvement in the South China Sea disputes, as illustrated by its protest note[36] relating to China's publication of the so-called nine-dashed line map.[37] Having observed Indonesia's maritime entitlement and the extent of the Chinese maritime claim in the South China Sea, there is the possible issue of maritime boundaries between the two States as discussed in Chapter 4, subsection 4.6.[38]

1.2.3 National Priorities

At the national level, Indonesia has always considered that its maritime spaces are a fundamental part of Indonesian territory and jurisdiction. Indonesia's struggle towards the recognition of archipelagic State status is an indication of how the country views its maritime spaces between its thousands of island as an integral and vital part of the State. National maritime spaces continue to be fundamental for Indonesia as an archipelagic State. This has been evident through the evolution of its national policies and legislation (see Chapter 3).

Having observed how global, regional and national levels deal with ocean affairs, it is fair to say that the ocean environment and its resources are both increasingly important to coastal States. While the need to utilise ocean resources has been higher than ever, understanding concerning the need to conserve ocean environment also needs to

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[34] Douglas Johnson, 'Drawn into the Fray: Indonesia's Natuna Islands meet China's Long Gaze South," 24 (3) *Asian Affairs*, 153.
[35] *Ibid.*
[36] Note from the Permanent Mission of Indonesian to the United Nations to the Secretary-General of the United Nations, 8 July 2010, No. 840/POL-703/VII/10, available at <http://www.un.org/Depts/los/clcs_new/submissions_files/mysvnm33_09/idn_2010re_mys_vnm_e.pdf>, accessed on 29 May 2013.
[37] Note from the Permanent Mission of the People's Republic of China to the United Nations to the Secretary-General of the United Nations, 7 May 2009, No. CML/17/2009, available at <http://www.un.org/Depts/los/clcs_new/submissions_files/mysvnm33_09/chn_2009re_mys_vnm_e.pdf>, on 20 May 2013.
[38] For a comprehensive analysis on the potential overlapping claim and boundaries between Indonesia and China, see, I M. A. Arsana and Clive H. Schofield 'Indonesia's "Invisible" Border with China' in Bruce A. Elleman, Stephen Kotkin, and Clive H. Schofield (eds) *Beijing's Power and China's Borders: Twenty Neighbors in Asia*, (M. E. Sharpe: 2013), 61-79.

improve. As noted above, the oceans are no longer utilised only for fish but also for other non-traditional resources such as hydrothermal vents, deep seabed mineral deposits, and bioprospecting.

It follows that the definition of marine limits and boundaries is also of increasing importance. Such 'lines at sea' are crucial for providing jurisdictional clarity over an increasing range of activities and resources including with respect to seabed energy resources (primarily oil and gas) and seabed minerals as well as in the context of the administration and management of fisheries activities. Such limits and boundaries can also be important from the point of view of defence and national security, immigration, customs and quarantine, with respect to infrastructure, historic wrecks, criminal law, industrial and commercial relations, marine pollution and marine environmental management, including the establishment of marine protected areas. This realisation provides the underlying rationale for the research undertaken in the preparation of the present study.

1.3 The Expansion of Maritime Claims and Implications for Maritime Boundaries

The importance of the oceans, particularly in terms of the marine resources that are present offshore and in terms of the maritime activities that can be undertaken there, have motivated (and still motivate) coastal States to claim broad maritime areas around their land territories. This, in turn, has acted as a strong driver for coastal States to delimit their maritime boundaries.

Maritime claims on the part of coastal States have expanded significantly in terms of their breadth measured from baselines seaward and thus their spatial scope. For instance, the territorial sea, which originally was generally conceived as a narrow belt of coastal space extending up to around three nautical miles offshore,[39] has quadrupled in breadth to 12 nautical miles from baselines. Beyond the territorial sea, a coastal State is now, owing to the evolutions in the law of the sea detailed in Chapter 2, entitled to an exclusive economic zone (EEZ), which may extend up to 200 nautical miles from the baselines. Not only that, under certain circumstances, continental shelf areas substantially further from shore may also be subject to the national jurisdiction of

[39] See Chapter 2, subsection 2.2 for detailed discussion on 'cannon-shot rule' that is closely related to the breadth of territorial sea a coastal claimed, which was three nautical miles.

coastal States. In certain cases, coastal States can even confirm their entitlement over continental shelf the outer limits of which can extend beyond 200 nautical miles from the baselines[40] (see Chapter 2, subsection 2.4.6).

Maritime delimitation is important for coastal States in clearly defining the extent of their sovereignty and jurisdiction. Maritime areas are part of national spaces, which are increasingly important to coastal States in many different ways. The delimitation of maritime boundaries serves to spatially define or 'bound' maritime areas under national sovereignty or sovereign rights and this brings clear and certain exclusive access to natural resources either living or non-living within such ocean spaces. In short, maritime boundaries are essential for coastal States to clarify the extent of their maritime spaces and rights and thus to fully realise the potential benefits that may be derived from 'their' marine spaces. This, in turn, is critical from the perspective of national efforts towards the management, surveillance, regulation and enforcement of activities and marine resources within such maritime zones (see below). Maritime areas are also important for navigation to move people and goods from different places nationally and internationally. For a coastal State, notably an archipelagic State such as Indonesia, with maritime spaces comprising a large proportion of its overall national space, the oceans also represent a part of the national identity.

The immediate and inevitable consequence of the expanding maritime areas coastal States can legally claim has been a substantial increase in overlapping maritime claims. When coastal States could only claim three nautical miles of territorial sea, for example, two States at a distance of more than six nautical miles did not experience overlapping claims between them.[41] Now, two States with a distance of less than 400 nautical miles are likely to have overlapping entitlements between them. While each coastal State is theoretically entitled to maritime areas with the same spatial extents or breadths, this is not the case when they are geographically proximate to each other such that there is essentially not enough maritime space between neighbouring States for every coastal State to fully enjoy the rights over maritime space as set out in the international law of the sea. Consequently, coastal States need to share or divide their surrounding maritime

[40] LOSC, Article 76.

[41] For detailed discussion on technical aspects of maritime claims, see, International Hydrographic Bureau. 'A Manual on Technical Aspects of the United Convention on the Law of the Sea' (hereinafter TALOS), Special Publication No 51, 4th edition, (Monaco, International Hydrographic Organization (IHO), 2006).

areas with their neighbours. This is most usually achieved through maritime boundary delimitation.[42]

At the time of writing, however, the majority of maritime boundaries remain undelimited (see Chapter 2, subsection 2.5.1). While in some instances shared maritime spaces have been defined, though usually on an interim basis and without prejudice to the eventual delimitation of maritime boundaries,[43] overlapping maritime claims have also given rise to maritime disputes between coastal States.

The key consequence is that there are more potential maritime boundaries to delimit. Ocean boundary-making is explored in more detail in Chapter 2 of this thesis. Maritime boundary delimitation is essentially undertaken to provide clarity on maritime jurisdiction to all coastal States to minimise conflict potentially caused by overlapping maritime jurisdiction. Meanwhile, the absence of maritime boundaries delimiting overlapping claims between States has been proven to be a challenge in the maintenance of good friendly relations between neighbouring States.[44]

1.4 The Case of Indonesia

Indonesia is the largest archipelagic state in the world with 17,504 islands[45] spreading from 95° E to 141°E (around 5,110 kilometres) and from 6° N to 11° S (around 555

[42] Maritime boundary delimitation in LOSC is governed by Article 15 for territorial sea, Article 74 for EEZ and 83 for continental shelf. See also: United Nations, *Handbook on the delimitation of maritime boundaries* (New York: UN DOALOS, 2000).

[43] Article 74 (3) and 83 (3) on the delimitation of EEZ and continental shelf respectively state that States in question shall "make every effort to enter into provisional arrangement" should final and binding agreement has yet to achieve. Joint development zone is one of the options that State in question can consider. Indonesia and Australia, for example, agreed to establish joint development zones in the Timor Sea in 1989 instead of delimiting final and binding maritime boundaries in the region. Similarly, Australia and Timor Leste also established Joint Petroleum Development Area (JPDA) in the Timor Sea in 2002. See also Chapter 2 for further discussion.

[44] There are several incidents around maritime boundary areas recorded between Indonesia and its neighbours due to boundary uncertainty. The Ambalat Case in the Sulawesi Sea (2005), Tanjung Berakit Incident (2010) and Incident in the Malacca Strait (2011) are three good example of bad impact of maritime boundary uncertainty. These three cases are discussed in detail in Chapters 6, 7 and 8 respectively.

[45] Information based on data provided by the Indonesian Ministry of Home Affairs in 2004, available at <http://www.depdagri.go.id/konten.php?nama=DataWilayah>, accessed on 2 June 2009. However, the recent island naming program in Indonesia indicates that the number of islands may be less than that was recorded. See also: *Kompas*, 'Number of islands decreasing' [*Jumlah Pulau Berkurang*], *News, Kompas.com* (Jakarta), 18 June 2008, available at <http://nasional.*Kompas*.com/read/2008/06/19/12373539/jumlah>, accessed on 2 August 2013.

kilometres), with 81,000 km of coastline.[46] Indonesia's coastline is considered the second longest in the world, after Canada's 243,000 km.[47] Geographically, Indonesia is located between two continents, Asia to the North and Australia to the South. It is also situated between two oceans: the Indian Ocean to the South/Southwest and the Pacific Ocean to the North/Northeast. In addition, Indonesia is geographically close to several archipelagos and States in the Pacific. Indonesia is also referred to as being at the 'intersection' or "crossroads of the region."[48] Being located at a so-called 'intersection', Indonesia possesses a strategic location where interaction with many States is essential.

Technical data provided by the Geospatial Information Board (BIG) (previously known as Bakosurtanal) indicates that Indonesia's total area is 8,282,446 square kilometres (2,414,774.87 square nautical miles) with land area of only 1,916,625 square kilometres (558,798.439 square nautical miles). Thus, Indonesia's maritime area is significantly larger than its land area, which accounts for 6,365,821 square kilometres (1,855,976.44 square nautical miles) consisting of territorial sea (284,211 square kilometres or 82,862.669 square nautical miles) exclusive economic zone (EEZ) (2,981,211 square kilometres or 869,182.053 square nautical miles), continental shelf (2,821,358 square kilometres or 822,576.375 square nautical miles) and archipelagic waters (3,096,191 square kilometres or 902,704.857 square nautical miles).[49]

For an archipelagic State, maritime spaces are essential to Indonesia. The ocean spaces are symbol of Indonesia's identity as a maritime nation. This is indicated, among other things, by a slogan of the Indonesian Navy (Tentara Nasional Indonesia – Angkatan Laut, TNI-AL) "*Jalesveva Jayamahe*". The slogan literarily means "in the ocean, we are glorious" in Sanskrit.[50] The maritime area has been an important part of Indonesia's political position in the international arena. Sovereignty and sovereign rights over its

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[46] Pruett, L., and J. Cimino. 'Coastal Length, Area of Continental Shelf, Territorial Sea, Claimed Exclusive Economic Zone, and Exclusive Fishing Zone' *Unpublished data derived from Global Maritime Boundaries Database,* (Fairfax VA: Veridian-MRJ Technology Solutions, 2000).

[47] Natural Resources Canada, *CoastWeb - Facts about Canada's coastline* (2007), available at <http://www.nrcan.gc.ca/earth-sciences/geography-boundary/coastal-research/about-canada-coastline/8504>, accessed on 4 August 2013.

[48] Joon Num Mak, 'Unilateralism and regionalism: working together and alone in the Malacca Straits', in Graham Gerard Ong (ed), *Piracy, maritime terrorism and securing the Malacca Straits* (Institute of SEA Studies, 2006) 142.

[49] Bakosurtanal, 'The size of Indonesia (UNCLOS 1982)' [*Luas Wilayah Indonesia (UNCLOS 1982)*], (Centre for Boundary Mapping, 2010). This is an internal publication by the Centre for Boundary Mapping of the Indonesian National Coordinating Agency for Surveys and Mapping (Bakosurtanal), which at the time of writing is known as Geospatial Information Board or *Badan Informasi Geospasial* (BIG). The author possesses the document containing the information obtained from BIG.

[50] The slogan can be found in TNI-AL's official website http://www.tnial.mil.id.

waters were the reasons, among other things, of Indonesia's firm position in multilateral fora such as the Law of the Sea Conferences.[51] Through the *Wawasan Nusantara* [Nusantara Outlook] Indonesia has asserted that its ocean spaces are integral parts of Indonesia, essential to the unity of air space, land and maritime areas of the State.[52] Consequently, Indonesia views its maritime areas as an integral part of the State. In keeping with this approach, the sustainability and protection of maritime areas has become an important agenda item for the Indonesian Government.

As previously highlighted, Indonesia shares maritime areas with ten neighbours due to its geographical location. At the time of writing, Indonesia has settled maritime boundaries, either fully or partially, with seven neighbours: India, Thailand, Malaysia, Singapore, Vietnam, Papua New Guinea, and Australia (see Chapter 4).[53] Some of the agreements remain incomplete for example because they only concern continental shelf jurisdiction and do not delimit the overlying water column (e.g. pending EEZ boundaries with Malaysia in the Malacca Strait, and with Vietnam in the South China Sea), while some others have been signed but have not yet ratified (i.e., EEZ with Australia). Meanwhile, no maritime boundary has been established with the Philippines, Palau, and Timor-Leste. Currently, a series of negotiations to settle maritime boundaries with neighbours are understood to be ongoing. Negotiations with Malaysia, for example, concerning maritime boundaries in the Sulawesi Sea have been intensively undertaken either in Malaysia or Indonesia.[54]

As noted above, in addition to the aforementioned ten neighbours, there is possibility that Indonesia needs to deal with two other States in relation to maritime boundaries. The two States are China in the South China Sea and Federated States of Micronesia (FSM) to the north of Papua. There is possibility for FSM to confirm its rights over continental shelf beyond 200 nautical miles southward, while Indonesia may also do the

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[51] Indonesia's delegation was considerably active during the negotiation of the United Nation Conferences on the Law of the Sea (UNCLOS), particularly the latest one taking place in 1973-1982. During the negotiations, Indonesia and other relevant States played an important role to convince the international community regarding the recognition of archipelagic State status. See chapter 3 for more detailed explanation.

[52] For detailed description and analysis on Wawasan Nusantara, see for example, John G. Butcher, 'Becoming an Archipelagic State: the Djuanda Declaration of 1957 and the "Struggle" to Gain International Recognition of the Archipelagic Principle', in Robert B. Cribb and Michelle Ford (eds), *Indonesia Beyond the Water's Edge: Managing an Archipelagic State* (2009), 28-48.

[53] See for example, Oegroseno, 2009, see above note 2.

[54] At the time of writing, there are more than 25 negotiations/meetings that have been conducted between Indonesia and Malaysia for maritime boundary delimitation between them. See Chapters 6, 7 and 8 for more detailed case studies.

same for the area to the north of Papua. Should their entitlement over continental shelf in the north of Papua be confirmed overlapping entitlement is likely found; continental shelf delimitation is required (see Chapter 5 subsection 4.7).

In summary, Indonesia has yet to fully settle its maritime boundaries with all of its neighbours. Significant progress has been achieved and negotiations are under way to delimit new segments of maritime boundaries. However, several remain to be resolved or finalised. A detailed discussion of the latest status of Indonesia's maritime boundaries with its neighbours will be covered in Chapter 4. Notwithstanding the number of agreements that have been achieved by Indonesia and its neighbours, several maritime boundaries remain unresolved. It can be observed that negotiations to establish multilateral boundaries are likely to take a long time to finalise.

1.5 Thesis Outline

The present research is multidisciplinary in character. This is in keeping with the fact that the international law of the sea itself deals with issues that are inevitably more than purely legal. In particular, the definition of maritime baselines, limits and boundaries necessarily involves political and geo-technical as well as international legal aspects. Two main aspects in particular will be analysed in this research: legal and geospatial considerations in relation to the definition of maritime space. Moreover, these two aspects will provide the primary approaches to analysing two different kinds of maritime limits or boundaries: maritime limits that are defined unilaterally by coastal States and maritime boundaries that are delimited multilaterally in conjunction with a neighbouring State or States. Throughout the thesis the primary focus of research is Indonesia and the delineation of its maritime limits and delimitation of its boundaries.

As alluded to above, unilaterally defined maritime 'boundaries' are commonly known as limits. Two kinds of limits are identified. The first is the kind of limits established solely by Indonesia where overlapping claims with other States do not exist, including territorial sea limits, contiguous zone limits, and EEZ limits. The second is the outer limits of continental shelf beyond 200 nautical miles (often referred to as extended continental shelf, ECS), the establishment of which requires recommendations of the United Nations Commission on the Limits of the Continental Shelf (CLCS).[55]

[55] LOSC, Article 76 (8).

Meanwhile, what can be termed bilateral or multilateral boundaries are those the establishment of which requires interaction of more than one State. However, in reality, many coastal States often start with defining their claimed maritime boundaries unilaterally. These serve as the forward position for the States concerned to negotiate with its neighbours in searching for final and binding boundaries. The delimitation of maritime boundaries is required when overlapping claims/entitlements of maritime jurisdiction occur between Indonesia and one or more of the country's neighbouring States. This thesis will particularly deal with bilateral/trilateral maritime boundary delimitation and the delineation of Indonesia's ECS.

Since Indonesia is a party to LOSC, legal aspects dealt with in this research are primarily derived from the LOSC and other national laws and regulations that were established based on the LOSC. After the entry into force of the LOSC, it has been the legal basis of Indonesia's maritime boundaries settlements, both unilateral and multilateral. That said, it is worth noting, however, that some of Indonesia's agreed maritime boundaries predate LOSC. In particular LOSC provides specific breadth limits for each maritime jurisdictional zone, provided that no overlapping entitlement exists between two or more coastal States.[56] While the definition of the outer limits of the continental shelf is more complex, distance measurements remain important alongside geological and geomorphological factors (see Chapter 2, subsection 2.4.6).[57]

With regard to Indonesia's maritime limits and the delimitation of its maritime boundaries, four key issues have been identified. They have been identified through the observation on maritime boundary-related cases since 2005 when the case of Ambalat block emerged (see Chapter 6) and through the analysis on past State practice and jurisprudence. The four are the existence, or presumed existence, of natural resources in overlapping areas that may impact on the delimitation process (either positively or negatively); the use of different types of baselines in delimitation; the potential use of different lines for seabed and water column in a same location; and the role of special geographical features such as islands in delimitation.

[56] Each maritime zone/jurisdiction is governed in specific part/articles in the LOSC. Territorial sea and contiguous zone, for example are governed in Part II, EEZ is governed in Part V and continental shelf is governed in Part VI (Article 76, to be specific).

[57] LOSC, Article 76 sets two formula (Hedberg Line and Gardiner Line) and two constraints (350 nautical miles limit and 100 nautical miles from 2500 m isobath line seaward).

1.6 Aims and Objectives

Having observed that Indonesia has yet to settle its maritime boundaries, the primary aim of this thesis is to assess the latest developments related to Indonesia's maritime jurisdiction with a view to evaluating key challenges and opportunities in the delimitation of Indonesia's maritime boundaries with its neighbours and, particularly, proposing possible options of solutions. While the author is an Indonesian national and a primary objective of the thesis is to assist in informing Indonesia's efforts to delimit its remaining maritime boundary issues and with neighbouring States, the present research is conducted from a neutral, scientific perspective. Although there is necessarily a particular focus on Indonesia's issues and concerns, nonetheless it is hoped that all relevant parties will be able to draw on thesis research findings with a view to resolving outstanding overlapping maritime claims and disputes involving Indonesia. Moreover, it is hoped and anticipated that the outcomes of this research will have broader applicability than to Indonesia alone. In particular, this thesis features the critical analysis of recent evolutions in the delimitation of maritime boundaries, especially the emergence of the International Court of Justice [ICJ] developed three-stage process (see Chapter 2, subsection 2.6.5) or approach to maritime delimitation, and seeks to test how these potentially significant developments can be applied to a number of problematic undelimited maritime boundaries involving Indonesia and its neighbours. This approach was first introduced by ICJ in its decision on maritime delimitation in the Black Sea between Romania and Ukraine (February 2009)[58] and has subsequently been applied in the Bay of Bengal Case between Bangladesh and Myanmar before the International Tribunal on the Law of the Sea [ITLOS] (January 2012)[59] and the ICJ Case between Colombia and Nicaragua (November 2012).[60] To achieve the aim, specific objectives have also been defined, which are:

1. To describe and assess the development of Indonesia's maritime claims since its independence to date.

[58] International Court of Justice, Case Concerning Maritime Delimitation in the Black Sea (Romania v. Ukraine) Judgment 3 February 2009 (hereafter: *Black Sea Case*). Available at: <http://www.icjcij.org/docket/files/132/14987.pdf>.

[59] International Tribunal for The Law of the Sea, 2012, Dispute Concerning Delimitation Of The Maritime Boundary Between Bangladesh and Myanmar in the Bay of Bengal (Bangladesh/Myanmar) (hereinafter referred to as *Bay of Bengal Case*), Judgement 14 March 2012.

[60] Territorial and Maritime Dispute (Nicaragua v. Colombia), Judgment, 251 (I.C.J. Nov. 19, 2012), available at http://www.icj-cij.org/docket/files/124/17164.pdf.

2. To systematically analyse Indonesia's settled maritime boundaries as well as Indonesia's pending maritime boundaries requiring delimitation in the future.
3. To critically analyse and provide options for the delimitation of selected maritime boundaries between Indonesia and its neighbours.
4. To test contemporary developments in ocean-boundary making through their application to a number of Indonesia's undelimited maritime boundaries. This thesis assesses the three-stage approach that has been recently demonstrated in maritime boundary delimitation by the ICJ or the International Tribunal for the Law of the Sea (ITLOS). The purpose is to analyse the advantages of the approach and how the approach can be implemented in practice.

To achieve the aforementioned aims and objectives, this thesis analyses three case studies in particular, in order to better address the third question outlined above. This approach of selecting case studies was deemed necessary in light of the fact that Indonesia possesses more than 20 segments of outstanding undelimited maritime boundaries with its neighbours. While a comprehensive and systematic assessment is provided of both Indonesia's agreed (Chapter 4) and undelimited (Chapter 5) maritime boundaries, the inclusion of key case studies allows for a greater depth of analysis while potentially yielding research findings and lessons applicable to Indonesia's other yet to be delimitated maritime boundary situations.

The three case studies selected are: maritime delimitation in the Sulawesi Sea, maritime delimitation in the Singapore Strait, and maritime delimitation in the Malacca Strait. These three case studies are chosen to represent four identified issues as previously discussed including the existence of natural resources in overlapping areas and how it affects delimitation process; the use of different types of baselines in delimitation; possibility and complexity of the use of non-single line for seabed and water column boundaries; and the role of special geographical features in delimitation (see section 1.5 and 1.7).

The overarching, key research question to address in this thesis is "what are the delimitation options in settling Indonesia's maritime boundaries with its neighbours by considering relevant legal and technical aspects for political solution?" Furthermore, this research seeks to investigate the advantages and disadvantages of different options for maritime delimitation in three different locations representing three case studies.

The options for maritime delimitation explored take into account contemporary evolutions in ocean boundary-making, notably the advent of the three-stage approach to maritime delimitation alluded to above, and are designed to demonstrate how recent developments in the law of the sea affect dispute resolution between Indonesia and its neighbours through maritime boundary delimitation. It is worth noting, however, that the aim of this research is to highlight key considerations likely to arise in maritime boundary delimitation between Indonesia and it neighbours and not to deliver actual boundary resolutions. It is acknowledged that, fundamentally, such maritime boundaries can only be resolved by the political authorities of the governments involved. Nonetheless, it is hoped that the present research will help to inform the delimitation process.

1.7 Research Approach

To address the aforementioned research questions, the current research combined the following methodological approaches and strategies:

Review and synthesis of existing studies on legal and technical aspects of maritime boundary delimitation with a view to critiquing competing perspectives and articulating an integrated view. This approach is to be supplemented by reference to recent developments drawn from State practice and international jurisprudence on maritime boundary delimitation.

Adoption of a novel case study-based 'geolegal' analysis of maritime boundary delimitation between Indonesia and its neighbours. The term 'geolegal' denotes an integrated geospatial/technical and legal approach to the analysis of issues related to claims to maritime jurisdiction and maritime boundary delimitation. Case studies are empirical enquiries to investigate a phenomenon "within real life context", particularly "when the boundaries between phenomenon and context are not clearly evident".[61] The method is appropriate when examining contemporary social and political phenomena, exploring the actions of actors in the policy process, the role of institutions, and contributing to a broader understanding of issues that cross jurisdictions and scales.[62] It is contended that this approach is entirely appropriate to the present study. The case

[61] Robert K. Yin, *Case Study Research: Design and Methods 4th Edition*, (London Sage Publications, 2009).
[62] A. W. Peachment, 'Policy Education and the Case Study Method', 63-70 in A. W. Peachment and J Perth (eds), *Case Studies in Public Policy*, (Public Sector Research Unit, Curtin University, 1993).

studies included here involve collection and analysis of relevant international law and policy instruments and legislation were backed with geospatial appraisal of charts, maps, aerial photography and satellite imagery.

Multiple visits were undertaken to Indonesia to gather relevant information.[63] Interviews with key stakeholders and policy makers in Indonesia and overseas (using the Australian National centre for Ocean Resources and Security [ANCORS] extensive network of oceans contacts, as well as the author's own excellent network in Indonesia) were unstructured using open-ended questions allowing for a greater breadth of data than structured interviews (i.e. questionnaires). Where structured interviewing seeks to collect data of a codable nature, unstructured interviewing seeks to gain insights about complex behaviour "without imposing any a prior categorisation that may limit field of inquiry."[64] For this purpose, field work researches were carried out in Indonesia at relevant institutions to collect geospatial data and other relevant information. Unstructured interviews were conducted with officials of government institutions related to maritime boundary issues in Indonesia such as BIG, Ministry of Foreign Affairs (MFA), Ministry of Home Affairs (MHA), Ministry of Marine Affairs and Fisheries (MMAF), Indonesian Naval Hydro-Oceanographic Office (Dishidros), and educational institutions.

Consultations with key stakeholders and technical experts within Indonesia, Australia and overseas were also undertaken. Through this approach, neutral perspective from, ideally, unbiased academic community have been obtained to balance or complement views and perspectives provided by aforementioned government agencies.

Detailed case studies[65] of maritime delimitation technically assisted by geographic information system (using CARIS LOTS software)[66] and geospatial data such as British

[63] Visits to Indonesia: 1) 16-28 November 2008 for a discussion with several academics in conjunction with a seminar on boundary issues at the Universitas Pembangunan Nasional in Yogyakarta; 2) 1-26 August 2009 for conferences and discussion with officials at Bakosurtanal (now, BIG), Ministry of Foreign Affairs, Ministry of Defence, and Dishidros; 3) 11-31 May 2010 for an interview with Dr. Nur Hassan Wirajuda, Indonesia's former Ministry of Foreign Affairs and discussion with officials at the Coordinating Ministry for Political Legal And Security Affairs; 4) 4 December 2010-1 February 2011 for a seminar at Gadjah Mada University, Yogyakarta, discussion with Prof. Hasjim Djalal, a respected law of the sea expert from Indonesia, discussion with technical people at Bakosurtanal (Dr. Khafid, and Ms. Tripatmasari) and Yogyakarta, discussion with the then Director for Political, Security and Territorial Affairs (Mr. Rachmat Budiman).

[64] A. Fontana and A. H. Prokos, *The Interview: From Formal to Postmodern*, 40 (Left Coast Press: 2007).

[65] See above note 61 and 62.

Admiralty Charts[67] and World Vector Shoreline[68]. With respect to the use of British Admiralty Charts, their use can be regarded as in keeping with previous practice in the region, including on the part of Indonesia, as a number of past boundary agreements have referred to such charts in support of the definition of an agreed maritime boundary line.[69] These maritime boundary delimitation cases address four issues related to Indonesia's maritime boundaries mentioned previously. As noted above, the three case studies are examined in this research, which are maritime delimitation in the Sulawesi Sea, the Singapore Strait and the Malacca Strait. These are selected for two reasons in particular. Firstly, pending maritime boundaries in the aforementioned regions are evident to cause more tensions between Indonesia and its neighbours compared to other regions. Secondly, the cases represent four maritime boundaries issues dealt with in this thesis, which are existence of natural resources in overlapping areas that hamper delimitation process; the use of different types of baselines in delimitation; different lines for seabed and water column in a same location; and the role of special geographical features in delimitation.

The case of Sulawesi Sea was chosen because of the existence of hydrocarbon resources that often complicate delimitation and also because of the absence of maritime boundaries in the area. At the same time, the existence of the small islands of Sipadan and Ligitan[70] can be seen as a contributing factor to the complexity. It is also worth noting that Indonesia has yet to agree on any maritime boundaries with Malaysia in the Sulawesi Sea. Maritime delimitation in the Sulawesi Sea also involves multiple zones, that is, territorial sea, continental shelf and EEZ.[71] The cases in the Singapore Strait

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[66] Caris LOTS is software produced by CARIS, a company based in Canada. Caris LOTS has been widely used by geoscientists to perform tasks related to geodetic aspects of the law of the sea, particularly maritime limits and boundaries. The official website of Caris LOTS is www.caris.com.

[67] British Admiralty Chart (BAC) is produced by the United Kingdom Hydrographic Office (UKHO) that has been widely used in maritime boundary delimitation. For more information, see http://www.ukho.gov.uk/ProductsandServices/Pages/Home.aspx.

[68] The original World Vector Shoreline (WVS) was a digital data file containing the shorelines, international boundaries, and country names of the world that was provided by the National Geospatial Agency (NGA). See, http://shoreline.noaa.gov/data/datasheets/wvs.html.

[69] Indonesia has agreed 17 maritime boundaries with its neighbours. The agreements are discussed in Chapter 4 of this thesis.

[70] Sipadan and Ligitan were once disputed by Indonesia and Malaysia. Through a decision made by ICJ, the sovereignty over the two islands was awarded to Malaysia. For a complete documentation on this sovereignty case, see, *Case concerning Sovereignty over Pulau Ligitan and Pulau Sipadan* (Indonesia/Malaysia), (hereinafter referred to as Sipadan and Ligitan Case) Judgement of 17 December 2002, available at <http://www.icj-cij.org/ docket/files/102/7714.pdf> , accessed on 20 May 2012.

[71] An analysis of maritime boundary delimitation in multizonal context is addressed in Irini Papanicolopulu 'A Note on Maritime Delimitation in a Multizonal Context: The Case of the Mediterranean' (2007) 38 (4) *Ocean Development & International Law*, 381-398.

involving Indonesia, Malaysia and Singapore highlight the issues related to baseline and datum concerns in particular,[72] as well as the existence of special geographical features: Pedra Branca (Batu Puteh), Middle Rocks in the context, primarily, of the delimitation of the territorial sea.[73] Delimitation in the Malacca Strait represents a delimitation of the water column where seabed boundaries have been long established. This case fits the need to analyse potential complexity as the consequence of different maritime boundaries for the seabed and water column.

It can also be remarked that all three of the selected case studies involve Indonesia and Malaysia (as well as Singapore in the context of the Singapore Strait). The three case studies were however, as noted, selected primarily in order to allow for an assessment of the issues outlined above. The three studies, as outlined above, are also diverse in character in that they include delimitation issues with respect to the territorial sea in particular (Singapore Strait), to water column jurisdiction where the continental shelf boundary has already been delimited (Malacca Strait) and concerning territorial sea, continental shelf and EEZ delimitation where no maritime has been agreed (Sulawesi Sea) (see Chapter 1, section 1.7 below).

While not directly selected with a view to analysing multiple maritime boundary delimitation scenarios between Indonesia and Malaysia in particular, nonetheless this commonality does provide the opportunity for a comparative perspective to be included in the analysis. In this context it can be observed that maritime boundary issues and overlapping claims have repeatedly led to incidents, disputes and tensions between Indonesia and Malaysia in recent years. The three case studies included in Chapters 6, 7 and 8 of this thesis therefore also arguably address the most problematic maritime boundary issues faced by Indonesia that accordingly require the most urgent attention. In addition, analysing the indicated cases of Indonesia's maritime delimitation scenarios involving Malaysia allows this research to cover a comprehensive case involving different location, different maritime zones, and different relevant factors. This will eventually allow the exploration of one complete package of maritime delimitation and

[72] Hasanuddin Z. Abidin, Sobar Sutisna, Tri Padmasari, Klaas J. Villanueva and Joenil Kahar, 'Geodetic Datum of Indonesian Maritime Boundaries: Status and Problems' (2005) 28(4) *Marine Geodesy*, 291-304.

[73] The sovereignty of Pedra Branca, Middle Rock and South Ledge has been partially decided by the International Court of Justice. For a complete documentation on the decision, see, *Case Concerning Sovereignty Over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge* (Malaysia/Singapore), (hereinafter referred to as Pedra Branca Case) Judgment of 23 May 2008, available at <http://www.icjcij.org/docket/files/130/14492.pdf>, accessed on 27 May 2008.

the analysis of the current approach of Indonesia's maritime boundary delimitation, which is based on the principle of "nothing agreed until everything is agreed". Additionally, this research investigates how this approach might be revised by considering the recent dynamic development and attitude of public/laymen regarding maritime boundary issues in Indonesia.

The completion of this research, and in particular the approach adopted in the case studies outlined above, is based on and informed by the latest developments in the international law of the sea regarding maritime boundary delimitation, notably the three-stage approach. This is a further development of the previous two-stage approach. Details of this three-stage approach and the development of maritime boundary development approach in general is provided in Chapter 2 of this thesis. This thesis breaks new ground in that it will attempt to apply the three-stage process in the analysis of case studies of certain Indonesian maritime boundaries, as outlined above. The lessons learned from this study are potentially applicable to the delimitation of other undelimited maritime boundaries and are therefore hopefully of wider relevance than to Indonesia alone. It is, however, recognised that this notable development in international ocean boundary-making has occurred with respect to the delimitation of continental shelf and EEZ boundaries. Nonetheless, the presence of potentially special circumstances, for instance the existence of small islands and other features in the area to be delimited, may analogously lead to the adjustment of potential equidistance line-based options for territorial sea delimitation such as in the Singapore Strait (see Chapter 7).

Literature resources were provided adequately by the University of Wollongong through its library or inter-library loans. Other literature resources that were not available through the University of Wollongong's library networks were obtained from external sources through other institutions such as the Division for Oceans Affairs and the Law of the Sea (DOALOS) of the United Nations; Max Planck Institute for Comparative Public Law and International Law in Heidelberg, Germany; and the Netherlands Institute of the Law of the Sea (NILOS) in Utrecht, the Netherlands.

Financially, this research was supported by the Australian Agency for International Development through a scholarship scheme: Australian Leadership Awards. The scholarship provided tuition fees, living allowance and study enrichment allowance

(SEA) for a period of four years that can also be utilised to conduct field research and seminar participation.

1.8 Significance of the Research

As previously noted, Indonesia is a large archipelagic State which, officially at least, has ten neighbouring States with which maritime boundaries need to be settled. Despite concluding several boundary agreements, most of these boundaries have yet to be completely established. Hence, the Indonesian government is still faced with a considerable task regarding maritime boundary delimitation with its neighbours. This research is designed to contribute a critical study of maritime boundary delimitation options that may be utilised in negotiations between Indonesia and its neighbours on maritime boundaries yet to be completed. The thesis provides detailed descriptions of the latest status of Indonesia's maritime boundaries. It also thoroughly analyses and examines existing maritime boundaries in order to propose suitable approach in the completion of pending maritime boundaries. All of the aforementioned will be expected to serve as a starting point or at least a comparative view that State delegates may consider in their ongoing negotiations. This kind of study is important as it seeks to provide rational scientific justification for proposals and avoids proposing emotional and biased claims. Analysis on three case studies of maritime boundaries in the Sulawesi Sea, the Singapore Strait and the Malacca Strait will provide reasonably comprehensive understanding on Indonesia's maritime boundaries in general.

Several previous studies regarding Indonesia's maritime boundaries between Indonesia and its neighbours have been conducted.[74] This current research supplements and builds on these existing studies with significant consideration on the latest developments. As previously mentioned, this research adopts the three-stage approach in maritime delimitation as examined in Chapter 2 of this thesis. The implementation of a rigorous integrated approach considering legal and geospatial approach will provide more comprehensive and up-to-date results than the previous studies. In-depth appraisal of particular undelimited maritime boundaries is also provided, including the testing of potentially significant recent alterations in international approaches to ocean boundary-

[74] See for example, Vivian L. Forbes, *Indonesia's Maritime Boundaries, A Malaysian Institute of Maritime Affairs Monograph*, (Kuala Lumpur: MIMA, 1995); Arsana, IMA, 2007, Critical Study on The Technical Aspects of The Maritime Boundary Delimitations: A Case Study of The Maritime Boundary Delimitation between The Republic of Indonesia and the Democratic Republic of Timor Leste, Unpublished Master Thesis at the University of New South Wales.

making – something which arguably represents a novel aspect of this study. This current research also includes the latest development of Indonesia's maritime boundaries with its ten neighbours and the delineation of Indonesia's extended continental shelf, which is expected to fill the gap in the literature reviews of the previous studies.

1.9 Contribution to the Literature

Maritime boundary delimitation has been intensively discussed and analysed in a growing body of scholarly publications. The details of relevant analysis have been well-cited in relevant chapter/sections of this thesis. The following section highlights the relevant literature and identifies three scholarly contributions made by this thesis.

A substantial literature on the delimitation of international maritime boundaries has developed across legal, political and geotechnical disciplines in particular. This sub-section highlights just a few notable contributions. The six-volume series of *International Maritime Boundaries*[75] are considered as a key scholarly publication of maritime boundary issues. They contain essays on the development of international maritime boundary practices by analysing agreed maritime boundaries from different parts of the world. Several relevant agreements involving Indonesia and its neighbours are also analysed in the publications. Several volumes of the monograph series *Maritime Briefings*[76] are also relevant to analyse not only agreed but also pending maritime boundaries. This publication also addresses pending maritime boundaries between Indonesia and its neighbours and provides general options of delimitation. Another publication is *The Maritime Political Boundaries of the World*[77] which

[75] For comprehensive and detailed discussion and analysis on maritime boundary agreements around the world, see Jonathan Charney and Lewis Alexander (eds) *International Maritime Boundaries,*Volume I and II (1993), Volume III (1998); Jonathan Charney, Robert W. Smith (eds) *International Maritime Boundaries,* Volume IV (2002); David Colson and Robert W. Smith (eds) *International Maritime Boundaries,* Volume V (2005); David A. Colson and Robert W. Smith (eds) *International Maritime Boundaries,* Volume VI.

[76] Maritime Briefing is published by the International Boundary Research Unit (IBRU) in Durham, UK. For relevant description and analysis on technical aspects of maritime boundary delimitation, see for example, Chris Carleton and Clive H. Schofield, 'Development in the Technical Determination of Maritime Space: Charts, Datum, Baselines and Maritime Zones'(2001) 3 (3) *Maritime Briefing*, International Boundary Research Unit, Durham, United Kingdom; Chris Carleton and Clive H. Schofield, 'Developments in the Technical Determination of Maritime Space: Delimitation, Dispute Resolution, Geographical Information Systems and the Role of the Technical Expert' (2002) 3 (4) *Maritime Briefing*, International Boundaries Research Unit, Durham, United Kingdom; John R. V. Prescott, and Grant Boyes 'Undelimited maritime boundaries in the Pacific Ocean excluding the Asian Rim' (2000) *Maritime Briefing*, International Boundaries Research Unit, Durham, United Kingdom.

[77] John R. V. Prescott and Clive H. Schofield, *The Maritime Political Boundaries of the World Second Edition*, (Martinus Nijhoff Publishers, 2005).

systematically discusses the political geography of delimited and undelimited maritime boundaries in different parts of the world, including the case of Indonesia. A number of publications in the form of edited books have also been published by several authors such as *Maritime Delimitation*[78] containing essays aimed at providing insight and guidance to the complicated process of maritime delimitation. Other scholarly volumes of note devoted to ocean boundary-making include the works of Nuno Antunes on the conceptualisation of maritime boundary delimitation,[79] Y. Tanaka on the predictability and flexibility in the law of the same,[80] and P. Weil on a reflection on the law of maritime delimitation.[81]

In the Indonesian context, several publications specifically dealing with Indonesia and the law of the sea as well as the delimitation of its maritime boundaries by prominent figures such as Professor Hasjim Djalal can be considered as a key source of literature.[82] A book published to commemorate his 75th birthday *Towards a Maritime State* (in Bahasa Indonesia)[83] contains several of his works regarding Indonesian ocean affairs and the law of the sea including maritime boundary issues. A book published in relation to a regular seminar *Indonesia Update* entitled "Indonesia beyond the Water's Edge: Managing an Archipelagic State" may be considered as one of the most up-to-date English publications that comprehensively discusses Indonesia's ocean affairs and the law of the sea.[84] However, maritime boundary delimitation is not the main topic of the book so that it does not contain specific analysis on the matter. The only internationally published monograph regarding Indonesia's maritime boundaries is a work by Vivian L. Forbes published by Malaysian Institute of Maritime Affairs (MIMA).[85] This

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[78] Rainer Lagoni and Daniel Vignes (eds), *Maritime Delimitation* (Martinus Nijhoff Publishers, 2006).
[79] Nuno S.M. Antunes, *Towards the Conceptualisation of Maritime Delimitation: Legal and Technical Aspects of a Political Process*, (Leiden, Martinus Nijhoff Publisher, 2003).
[80] Yoshifumi Tanaka, *Predictability and flexibility in the law of maritime delimitation Vol. 8* (Hart: 2006).
[81] Prosper Weil, *The Law of Maritime Delimitation-Reflections*, (Cambridge: Grotius Publications Ltd, 1989).
[82] See for example, Djalal, H. *Perjuangan Indonesia di bidang hukum laut*. Badan Pembinaan Hukum Nasional, Departemen Kehakiman, 1979; Djalal, H. *Indonesia and the Law of the Sea*. Jakarta: Centre for Strategic and International Studies, 1995.
[83] Chandra Motik Yusuf (ed) *Archipealic State towards Maritime State: 75 years of Prof. Dr. Hasjim Djalal, MA* [trans *Negara kepulauan menuju negara maritim: 75 tahun Prof. Dr. Hasjim Djalal, MA*], (Lembaga Laut Indonesia, Jakarta, 2010).
[84] The author also contributed a chapter to this publication. See, I M. A. Arsana and Clive H. Schofield, 'Extending Indonesia? Opportunities and Challenges Related to the Definition of Indonesia's Extended Continental Shelf Rights' in Robert B. Cribb and Michelle Ford (eds), *Indonesia Beyond the Water's Edge: Managing an Archipelagic State* (2009), 70-93.
[85] Vivian L. Forbes, *Indonesia's Maritime Boundaries, A Malaysian Institute of Maritime Affairs Monograph*, (Kuala Lumpur: MIMA, 1995).

publication is an important source for this thesis for it comprehensively describes and assesses agreed maritime boundaries between Indonesia and its neighbours. However, this publication covers only agreements concluded prior to 1995.

Having completed an extensive literature review and case study analysis, this thesis makes three key contributions to the existing literature. Firstly, this thesis provides a systematic appraisal of Indonesia's existing maritime jurisdictional practice, including its delimited and pending international maritime boundaries and seeks to rigorously examine issues and problems raised in every particular agreement/segment. The assessment is to be used as a basis from which proposals on maritime delimitation in the future can be developed. This is considered as an important contribution since it is among the first to comprehensively discuss every agreement of Indonesia's maritime boundaries in one single publication. In comparison to the work of Forbes[86] or the series of *International Maritime Boundaries*,[87] for example, this thesis contains description and analysis of a more up-to-date as well as systematic and comprehensive list of Indonesia's maritime boundary agreements.

Secondly, this thesis analyses detailed options of Indonesia's maritime delimitation with its neighbours by considering legal and technical aspects. This thesis is a unique combination of legal and geospatial approaches to ensure that the options of Indonesia's maritime boundaries offered accommodate both comprehensive legal considerations and robust geospatial/technical procedure. The use of geographic information system tools to examine maritime boundary options made it possible to result in accurate location of maritime boundaries which at the same time comply with relevant provisions in LOSC. In addition, the options provided in this thesis were produced with adequate consideration of relevant and latest international legal developments.

Thirdly, and potentially significantly, the present study provides a first attempt to apply recent developments in international ocean boundary-making to particular undelimited maritime boundaries involving Indonesia. This testing of the three-stage process in particular is novel and, it is suggested, represents a notable contribution to the literature devoted to international maritime boundaries. By implementing the three-stage approach to the case of maritime delimitation between Indonesia and its neighbours, this research is expected to contribute comprehensive evaluation to the approach. The

[86] See above note 85.
[87] See above note 75.

research critically assesses what approaches have contributed to the development of maritime boundary delimitation. In addition, the thesis analyses potential issues/concerns in relation to the implementation of the three-stage approach in maritime boundary delimitation in the future.

1.10 Scope and Limitations

This research focuses on the completion of defining Indonesia's maritime boundaries with its potentially ten (or possibly more) neighbours. Prior to discussing Indonesia's maritime limits and boundaries, this thesis also highlights the importance of ocean and maritime boundaries in a global and regional arena to put national (Indonesian) issues into their proper context.

The discussion starts with the importance of ocean space and maritime boundaries in global, regional and national context, followed by the case of Indonesia. In order to achieve the main objective to provide options of Indonesia's maritime boundary delimitation, three case studies were analysed in particular. These three case studies are chosen primarily because they represent key current issues facing Indonesia with regard to maritime boundary delimitation, as discussed in section 1.5. As noted above, the three case studies chosen are arguably the most complex, problematic and require the most urgent attention. The fact that they involve the same two States, Indonesia and Malaysia, also allows for comparison between the cases.

From the outset it is recognised that it was beyond the scope of the present research to deliver definitive future maritime boundaries involving Indonesia and neighbouring States. Therefore, it is worth noting that this thesis is not to settle Indonesia's maritime boundaries with its neighbours. It is acknowledged that such maritime boundaries can only be resolved by the political authorities of the governments involved. The objective, rather, has been to provide legal and geo-technical analysis of Indonesia's undelimited maritime boundaries, informed by the three-stage approach alluded to above, with a view to highlighting key issues and factors that are likely to arise in discussions and negotiations on these issues. It is hoped that the analysis and options contained herein will prove to be of use in the efforts of duly constituted national authorities endeavouring to achieve agreement on maritime boundaries involving Indonesia in the future.

The main obstacle encountered in this research was access to official information on the latest development of maritime boundary negotiation between Indonesia and its neighbours. Information obtained from public media most of the time does not comprehensively represent the actual situation in negotiations. However, this is understandable since maritime boundary negotiations are generally confidential in nature and the public is not informed of the results until after an agreement is achieved. To overcome this issue, formal and informal interactions have been carried out with relevant government officials to obtain information. It has been agreed upon, however, that only certain information of a non-confidential nature is to be included in this thesis. Nonetheless, direct contact with relevant government officials and also academics in the area has to an extent overcome the difficulties in obtaining official information regarding the aforementioned issue.

1.11 Thesis Structure

This thesis is comprised of nine chapters. Chapter 1, the current chapter, provides an introduction to the importance of the ocean in global, regional and national (Indonesian) context. Research approach, scope and thesis outline are also covered in Chapter 1. The evolution of the law of the sea, especially with respect to the expansion of maritime jurisdictional claims over time coupled with the principles of maritime boundary delimitation are explored in Chapter 2. This chapter also discusses legal and technical dimensions in maritime boundary delimitation. Chapter 3 deals with the evolution of Indonesia's maritime claims starting from the pre-independence period to the current date and their roles in the development of the international law of the sea. Chapter 4 discusses Indonesia's agreed maritime boundaries while Chapter 5 addresses Indonesia's pending maritime boundary delimitations. Chapters 6, 7 and 8 analyse options of Indonesia's maritime boundary delimitation with its neighbours by discussing the cases of Sulawesi Sea, the Singapore Strait and the Malacca Strait respectively. The thesis concludes with Chapter 9 which includes a review of the findings contained in the previous chapters together with an overall discussion and suggestions for future research.

CHAPTER 2 THE DEVELOPMENT OF CLAIMS TO MARITIME JURISDICTION AND THE DELIMITATION OF INTERNATIONAL MARITIME BOUNDARIES

"Land dominates the sea" - Principle under the international law of the sea

2.1 Introduction

In general terms, the development of human civilisation coupled with rising populations has led to increasing demand for resources, notably to meet basic needs, such as the provision of adequate food supplies and in terms of meeting transportation needs for example. These pressures triggered and drove seemingly ever more expansive maritime claims on the part of coastal States, at least up to the advent of the United Nations Convention on the Law of the Sea (LOSC). These expansive maritime claims have, in consequence, generated broad areas of overlapping maritime claims between coastal States which, in turn, has created the need for the delimitation of maritime boundaries.

This chapter provides an overview and analysis of the evolution of international maritime boundary-making, including reference to delimitation principles and methods of delimitation, with a particular emphasis on geospatial or technical aspects of maritime boundary delimitation. Prior to discussing maritime delimitation, however, the scene is set through a discussion of the development of maritime claims offshore and their codification in the international law of the sea over time. In particular, key issues such as the baselines along the coast from which maritime zones are measured are addressed, together with an assessment of the evolution of the claims to maritime zones that coastal States may make or are entitled to.

To an extent this assessment can be viewed as contextual in character. However, this can be considered as essential background, providing the backdrop and basis for subsequent discussion and critical analysis of the maritime claims, boundaries and potential delimitation options of Indonesia and its neighbouring States. The present chapter essentially traces the development and codification of the international law of the sea with a particular emphasis on the evolution and significant extension of coastal State claims to maritime jurisdiction offshore, the overlaps that have resulted and thus the requirement for the delimitation of maritime boundaries between neighbouring States. Discussion consciously includes coverage of geotechnical as well as legal

dimensions of maritime boundary delimitation – something considered to be essential to a fully-rounded approach to the research questions and aims outlined in the previous chapter.

In the Indonesian context, the discussion on the aforementioned issues can be considered to be a crucial precursor prior to embarking on the systematic analysis of Indonesia's agreed and pending maritime boundaries as well as in-depth treatment of particular case studies of maritime delimitation with its neighbours. Discussion on baselines, for example, is essential for Indonesia since it has designated almost every kind of baselines permitted by LOSC, which are normal,[88] straight,[89] and archipelagic baselines.[90] River[91] and bay[92] closing lines that are used for baselines are also applicable to Indonesia. The baselines of Indonesia's neighbours are also, of course, relevant to the discussion of particular maritime boundary situations shared with Indonesia. In addition, as an archipelagic State, Indonesia is entitled to all types of maritime jurisdictions including internal waters,[93] archipelagic waters,[94] territorial sea,[95] contiguous zones,[96] EEZ,[97] and continental shelf.[98] Due to its geographical location and particularly its proximity and geographical relationship relative to its neighbours Indonesia needs to settle maritime boundaries for territorial sea, EEZ and continental shelf.[99] Put simply, the case of Indonesia represents a detailed discussion of international maritime jurisdictional issues and maritime boundaries in particular. Accordingly, comprehensive discussion with respect to the development of these issues and concerning the principles and practice of international maritime boundaries is essential before analysing Indonesia's maritime boundaries with its neighbours.

2.2 Expanding Maritime Claims

As outlined in Chapter 1, the Earth is predominantly a planet of water, dominated by the oceans. These extensive maritime spaces have, over time, increasingly become subject

[88] LOSC, Article 5.
[89] LOSC, Article 7.
[90] LOSC, Article 47.
[91] LOSC, Article 9.
[92] LOSC, Article 10.
[93] LOSC, Article 8.
[94] LOSC, Part IV.
[95] LOSC, Part II.
[96] LOSC, Part II.
[97] LOSC, Part V.
[98] LOSC, Part VI.
[99] See for example Oegroseno, 2009, see above note 2, pp. 49-58.

to the sovereignty and jurisdiction of coastal States (see section 2.2). In general terms this can be traced to the development of human civilisation, which has led to increasing demands for resources, notably to meet basic needs, such as food and seabed hydrocarbons (oil and gas), in addition to long-standing reliance on the oceans for transportation.[100] This drive to meet seemingly ever increasing resource needs, coupled with technological advances allowing for the exploration for and exploitation of resources in progressively deeper water and further offshore, has triggered and driven increasingly expansive maritime claims on the part of coastal States.

Arguably, the first division of the ocean in the modern age was introduced in the 15th century through the *Inter Caterea*, or Papal Bull, of 4 May 1493 by the Pope Alexander VI.[101] This document defined a line drawn from pole to pole at a distance of 100 leagues[102] to the west of Azores and Cape Verde. On this basis, sovereignty over all the lands to the west the defined line was allotted to Spain, while those located to the east were reserved for Portugal, provided that those islands and mainlands were not in the possession of another Christian king or prince as at Christmas Day in 1492.[103]

In June 1494 the *Treaty of Tordesillas* was agreed upon between Portugal and Spain, drawing a line at a distance of 370 leagues to the west of Cape Verde passing Brazil. The line assigned the oceans to the east of the line as Portuguese and those to the west remained Spanish.[104] The rationale for this substantial shift in the dividing line between Spanish and Portuguese possessions in the "New World" relates to dissatisfaction on the Portuguese side over their share of the newly "discovered" territories which under the Papal Bull had been confined to the easternmost tip of South America. Subsequently, through a treaty signed in Zaragoza on 22 April 1529, Spain transferred the Moluccas Islands to Portugal. Consequently, a line was drawn in the eastern part of the globe in

[100] Statistics from UNCTAD reports on Review of Maritime Transport states that around 80 per cent of global trade is carried out by sea. See: UNCTAD, 2012. Review of Maritime Transport 2012, p. xiii.
[101] An English translation of the bull published in *European Treaties bearing on the History of the United States and its Dependencies to 1648*, Frances Gardiner Davenport, editor, Carnegie Institution of Washington, 1917, Washington, D.C., at pp. 75-78. An online version is obtained from <http://www.nativeweb.org/pages/legal/indig-inter-caetera.html>, accessed on 20 February 2009.
[102] 1 league = 3 miles = 5.556 kilometres.
[103] Francalanci, G. and Scovazzi, T. 1994 (eds) Lines in the Sea, Dordrecht: Martinus Nijhoff, p. 2.
[104] Carleton, C. and Schofield, C. H. 2001, see above note 76, p. 1. See also: Francalanci, G. and Scovazzi, T. 1994, above note 103.

order to delimit the respective possession.[105] Figure 2.1 illustrates ocean division between Portugal and Spain based on the aforementioned treaties.

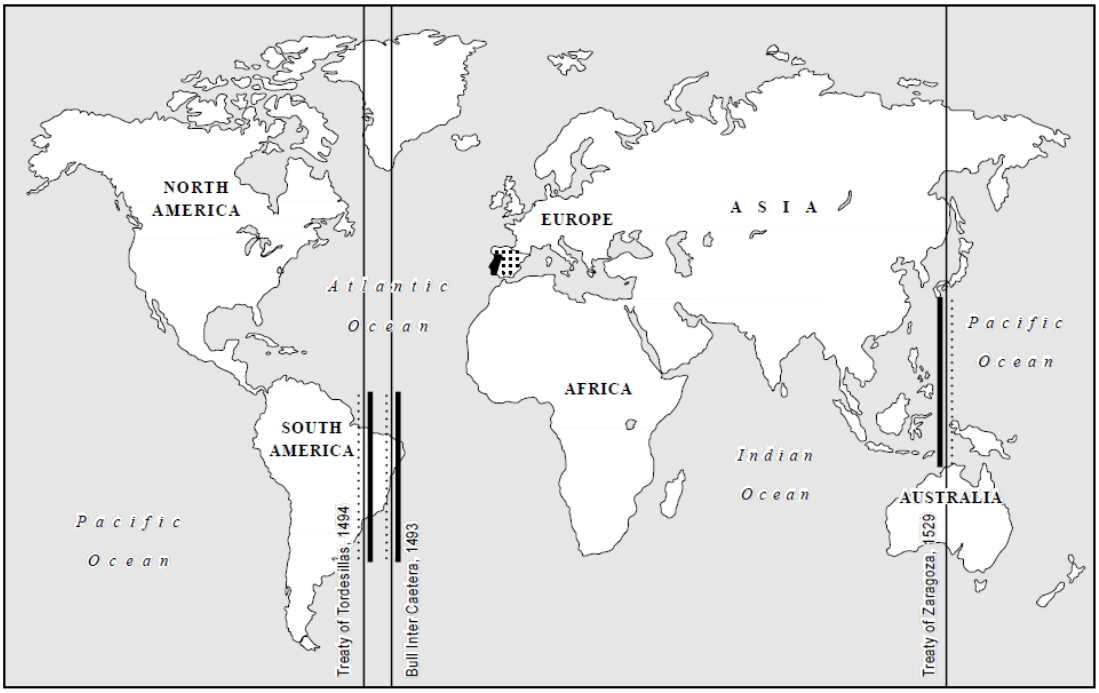

Figure 2.1 The Division of the Oceans between Portugal and Spain[106]

Notwithstanding the fact that maritime division of the world between Spain and Portugal was an important historical development with implications for ocean rights, it is notable that it was by no means universally accepted. Other European powers objected to the division of these "new" overseas (that is, non-European) territories among the Iberian neighbours. Moreover, the division enacted through the Papal Bull and subsequent agreements between Portugal and Spain was inevitably viewed negatively by people or States in the regions divided, conquered and colonised.

The lines in the sea defined through these early treaties were followed by more concerted efforts to assert national sovereignty over maritime areas. In particular, James I of England proclaiming the "King's Chambers" on 1 March 1604.[107] This defined the coastal waters of England landward of a line connecting 27 headlands as illustrated in Figure 2.2. While sovereignty over the waters so enclosed was not claimed overtly, within these chambers, any hostile acts were forbidden, indicating a degree of jurisdiction was being claimed and imposed within them. The growth of maritime trade

[105] Francalanci, G. and Scovazzi, T. 1994, see above note 103, p. 4
[106] Carleton, C. and Schofield, C. H. 2001, see above note 76, p. 2
[107] Francalanci, G. and Scovazzi, T. 1994, see above note 103, p. 6.

and commerce on a global scale gave rise to two contending motivations – the desire to allow maritime commerce to flourish through freedom of navigation and the imperative to control access to maritime spaces close to the coasts of States, driven in particular by security concerns. Accordingly, in the seventeenth century, two different concepts emerged: *Mare Liberum* (free sea) pioneered by Hugo de Groot (Grotius)[108] in 1604[109] and *Mare Clausum* (closed sea) proposed by John Seldon in 1635 in direct response to the work of Grotius.[110] While, on one side of the debate, Grotius contended that "no ocean can be the property of a nation because it is impossible for any nation to take it into possession by occupation" and that for a State to attempt to do so would be contrary to the laws of nature, in contrast, Seldon argued in favour of "closed seas" subject to the jurisdiction of the coastal State. The "freedom of the sea" concept from was written mainly for two main reasons.[111] Firstly, it was to provide a justification to The Netherlands' trading activities in the Indian Ocean. Secondly, the concept was aimed at resolving disputes and conflicts between States over trade routes and fishing activities in the region.

It is notable that both authors' views reflected national interests – Grotius in support of the position of his client, the Dutch East India Company; while Seldon had been charged with defending the interests of the British Crown over the seas surrounding the British Isles.[112] Nonetheless, these texts consequently introduced two "key principles in the law of the sea – state sovereignty over the territorial sea or 'small sea' close inshore and freedom of navigation on the 'high seas'."[113]

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[108] "Hugo Grotius" is the commonly used anglicised version of the Dutch "Huig de Groot".

[109] Grotius, H., *The Freedom of the Seas Or The Right Which Belongs to the Dutch to Take Part in the East Indian Trade*, translated with a revision of the Latin text of 1633 by Van Deman Magoffin, R. Division of International Law, Carnegie Endowment for International Peace (reprinted Union, New Jersey: The Lawbook Exchange, 2001). First published as Chapter 12 of *De Indis* [The Indies], available at, <http://oll.libertyfund.org/index.php?option=com_staticxt&staticfile=show.php%3Fperson=3775&Itemid=28>.

[110] First published in Latin as Seldon, J. "Mare Clausum seu De Domino Maris", republished as "Of the Dominion, or, Ownership of the Sea", translated into English and set forth with som [sic] additional evidences and discourses by Marchmont Nedham (London: William Du-Gard, by appointment of the Council of State, 1652) (reprinted Clark, New Jersey: Lawbook Exchange, 2004).

[111] Garry R. Russa, Dirk C. Zellerb, 2003. "From Mare Liberum to Mare Reservarum", Marine Policy Volume 27 p. 76.

[112] Churchill, R.R. and Lowe, A.V., *The Law of the Sea*, 3rd Edition (Manchester: Manchester University Press, 1999), p. 4.

[113] Carleton, C. and Schofield, C. H. 2001, see above note 76, p.1

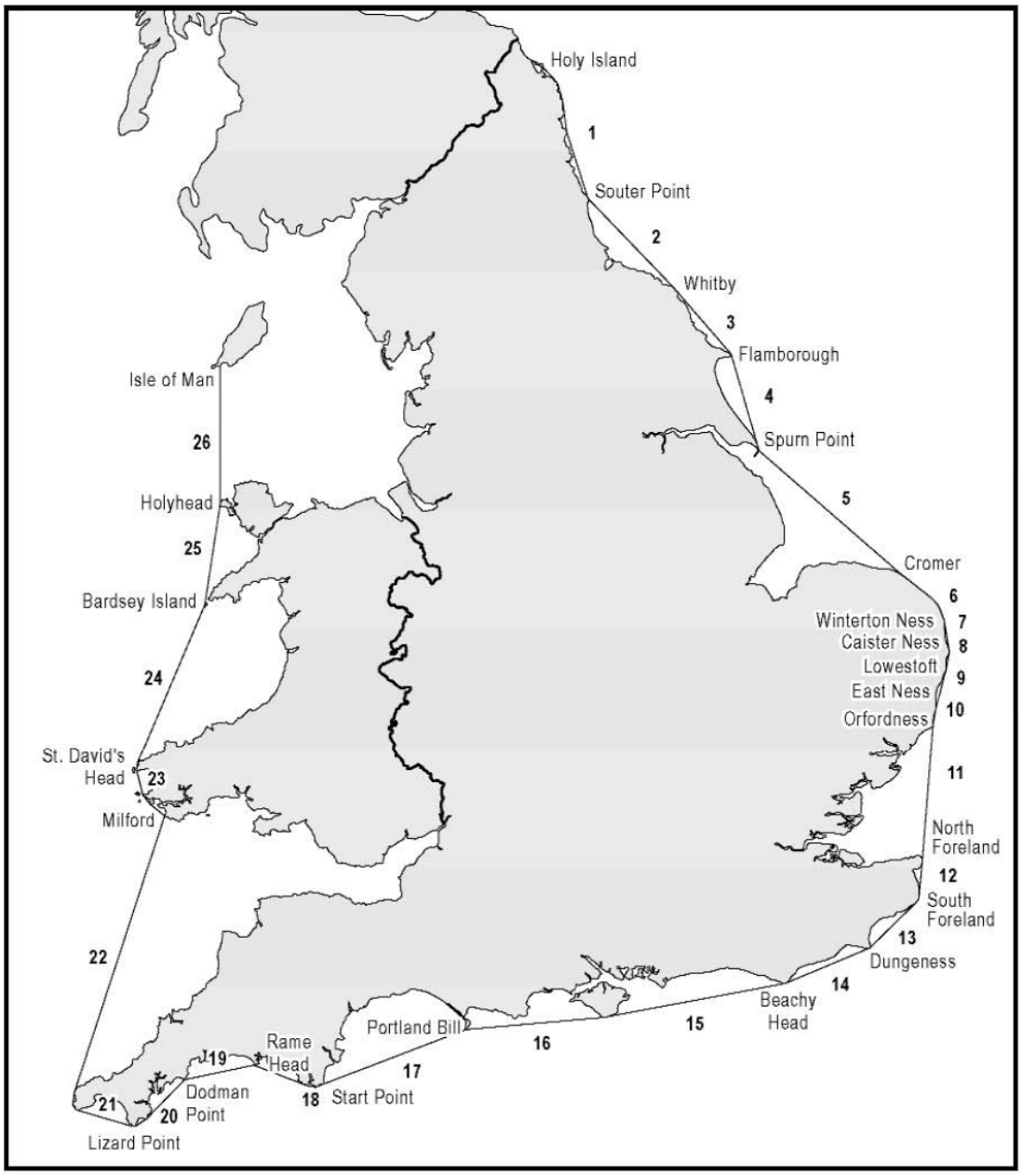

Figure 2.2 The King's Chamber Map

Initially, coastal States tended to claim a narrow maritime zone or area, termed the territorial sea, generally within a distance of around three nautical miles from the coast. This is often termed the 'cannon-shot rule' which emerged in the 17th and 18th century. Cannons were stationed along the coast of neutral States in order to protect them against being drawn into feuds between warring Powers by discouraging actions that potentially lead to war.[114] The general rule that developed, though was not subject to formal agreement and codification, was based on the idea that cannons had a range of around

[114] For a comprehensive discussion of the 'cannon-shot rule', see: Kent, H. S. K. 1945. The Historical Origins of the Three-Mile Limit, The American Journal of International Law, Vol. 48, No. 4 (Oct., 1954), pp. 537-553.

three miles, with no allowances being made for variations in their calibre and therefore range.[115] In the eighteenth century, the 'cannon-shot rule' was widely accepted in Europe that Coastal States might exercise sovereignty over their territorial seas as far as projectiles could be fired from a cannon based on the neutral shore.[116] Not until the end of World War II, did States start to claim more extensive zones of maritime jurisdiction which led to the emergence of claims to areas of the continental shelf (see below).[117] In addition, the concept of an exclusive economic zone (EEZ) was introduced only in the 1970s/1980s, and was codified through the United Nations Convention on the Law of the Sea (see below).

The desire by coastal States to exercise sovereign rights over the seabed beyond the limits of the territorial sea, was largely motivated by the desires and requirements of coastal States to gain access to offshore natural resources, in particular seabed energy resources. Advances in technology significantly enhanced the ability of coastal States to conduct offshore exploration, particularly for oil and gas. The existence of these and other natural resources, coupled with enhanced capability to develop them, therefore dramatically increased the importance, socio-economically and politically, of the legal status of maritime spaces seawards of traditionally narrow territorial seas, especially the broad and potentially oil-rich and accessible continental shelf.[118]

A Presidential Proclamation by the United States (US) President Harry S. Truman, which became generally known simply as "the Truman Proclamation", can be considered as one of the key catalysts of the birth of the continental shelf concept.[119] This declaration had a significant influence on the development of the continental shelf jurisdiction, as it was among the first formal documents asserting a claim beyond the

[115] Kent, H. S. K. 1945, see above note 114, pp. 537-538.
[116] See also: The United Nations Convention on the Law of the Sea (A historical perspective). Accessed from <http://www.un.org/Depts/los/convention_agreements/convention_historical_perspective.htm#Historical%20Perspective>, on 24 May 2013.
[117] Churchill, R.R. and Lowe, A.V., 1999, see above note 112, p. 494.
[118] *Ibid*.
[119] See, Presidential Proclamation No. 2667, "Policy of the United States With Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf", 28 September 1945, Federal Register 12303; 59 US Stat.884; ; 3 C.F.R. 1943-1948 Comp., p. 67; XIII Bulletin, Department of State, No. 327, September 30, 1945, p. 485. Copy included in Volume II of Brown, E.D., *The International Law of the Sea*, (Aldershot: Dartmouth, 1994), at 113. See also, <http://www.oceanlaw.net/texts/truman1.htm>, accessed on 4 May 2007 (hereafter "Truman Proclamation").

territorial sea.[120] The Truman Proclamation was made on 28 September 1945 to conserve the US jurisdiction over parts of the adjacent continental shelf. It states that:

> […] having concern for the urgency of conserving and prudently utilizing its natural resources, the Government of the United States regards the natural resources of the subsoil and sea-bed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control.[121]

The Truman Proclamation was a response in part to pressure from domestic oil interests, unilaterally extending United States jurisdiction over all natural resources on that nation's continental shelf, for example, oil, gas, minerals and so forth. The proclamation was considered the first major modern challenge to the freedom-of-the-seas doctrine.[122] The Truman Proclamation was especially influential in large part because it was the United States that was extending its jurisdictional claims beyond the territorial sea.

In addition to what is generally termed the Truman Proclamation in respect of continental shelf rights, a further Presidential Proclamation was also issued concerning fisheries. It stated:

> In view of the pressing need for conservation and protection of fishery resources, the Government of the United States regards it as proper to establish conservation zones in those areas of the high seas contiguous to the coasts of the United States wherein fishing activities have been or in the future may be developed and maintained on a substantial scale. […][123]

The Truman Proclamation to a substantial extent reflected a growing creeping coastal State jurisdiction as coastal States increasingly advanced claims offshore in that era.

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[120] Nandan, S. N. 1987. The Exclusive Economic Zone: A Historical Perspective *in* Essays in memory of Jean Carroz, Rome. Accessed from <http://www.fao.org/docrep/s5280T/s5280t0p.htm>, on 20 June 2007. While it has been suggested that the Truman Proclamation was the first such document, it is worth noting that Argentina made a claim to the "epicontinental sea" through legislation enacted a year prior to the Truman Proclamation. See, Decree No.1, 385 Concerning Mineral Reserves, January 24, 1944, Boletin Oficial de la Republica Argentina, Vol.52, no.14, 853 (17 March 1944) in United Nations, *Laws and Regulations on the Regime of the High Seas*, United Nations Document St/LEG/SER.B/1, (New York, United Nations, 1951).

[121] See: The Truman Proclamation, see above note 119.

[122] See also: The United Nations Convention on the Law of the Sea (A historical perspective). Accessed from <http://www.un.org/Depts/los/convention_agreements/convention_historical_perspective.htm#Historical%20Perspective>, on 24 May 2013.

[123] Woolley, J. and Peters, G. 2009. Proclamation 2668--Policy of the United States with respect to coastal fisheries in certain areas of the high seas, The American Presidency Project. Accessed from <http://www.presidency.ucsb.edu/ws/index.php>?pid=58816> on 2 April 2009.

The proclamation by the US was then readily followed by other States. Other States did, however, claim additional rights over and above those claimed by the US. Indeed, a number of coastal States, including a number of South American States, simply extended their territorial sea claims out to 200M. For example, Mexico followed with a declaration similar to the American Truman Proclamation.[124] Argentina then followed to claim its continental shelf and the water column superjacent to the seabed.[125] Similarly, Chile[126], Peru[127] and Ecuador, asserted sovereign rights over a 200 nautical miles zone which encompassed both seabed and the water column.[128] The primary intention of the assertion by those Latin American States were to limit the access of distant-water fishing fleets and to control the depletion of fish stocks in their adjacent seas.[129] These claims provoked resistance by other States including the US. The US protested against these claims – especially those to sovereignty over areas beyond the traditionally narrow belt of territorial sea rights.[130] Notwithstanding the fact that the extensive claims sparked protests, they are considered as key staging posts in the law of the sea, particularly towards the emergence of the continental shelf and EEZ concepts.[131] These developments reveal that the fundamental reasons underlying growing assertions of expanded maritime jurisdictional claims were resources oriented, either to secure resources on behalf of the coastal State or to prevent others from exploiting them.

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[124] Mexican Presidential Declaration on 29 October 1945. See: Richard Young, 1948. Recent Developments with Respect to the Continental Shelf , The American Journal of International Law, Vol. 42, No. 4 (Oct., 1948), p. 851.

[125] Decree No. 14,708/46, Boletin Oficial de la Republica Argentina, Dec. 5, 1946. For English translation see: Argentina: Declaration Proclaiming Sovereignty Over the Epicontinental Sea and the Continental Shelf, The American Journal of International Law, Vol. 41, No. 1, Supplement: Official Documents (January, 1947), pp. 11-12.

[126] Presidential declaration dated June 23, 1947 announcing the confirmation and proclamation of the Government of Chile on the national sovereignty "over the continental shelf and the epicontinental sea adjacent to its coast". See: Richard Young, 1948, see above note 125, p. 853.

[127] Decree No. 781, El Peruano-Diario Oficial, Aug. 11, 1947. See Richard Young, 1948, see above note 124, p. 854

[128] The United Nations Convention on the Law of the Sea (A historical perspective), see above note 122.

[129] The United Nations Convention on the Law of the Sea (A historical perspective), see above note 122.

[130] For a period of 1948-1990, the United States protested more than 140 what it terms as "excessive claims". For a comprehensive analysis on these different types of protest during the period, see: J. Ashley Roach, 1990, Excessive Maritime Claims , Proceedings of the Annual Meeting (American Society of International Law), Vol. 84(March, 28-31), pp. 288-295

[131] Heidar, T, H. 2004. Legal Aspects of the continental Shelf Limits, pp. 20-21 *in* Legal and Scientific Aspects if Continental Shelf Limits, p. 467, edited by Nordquist nautical miles. H., More, J. H., and Heidar, T. H., Martinus Nijhoff Publishers, The Netherlands.

In addition, rapid advances in technology enabled coastal States to have greater control over and access to marine resources located beyond their territorial sea.[132] The invention of sophisticated vessels, submarine vessels, drilling equipment and positioning technology provide significant progress in terms of marine resource exploration and exploitation. In 1975, Shell Oil Company recorded a deepwater discovery, the depth of which was in excess of 1,000 feet (304.8 metres).[133] One decade later, Shell made a significant progress by recording MENSA field, which was located in depths of more than 5,000 feet. The field was competed in 1986 which then became a threshold of ultra-deepwater.[134] To find new resources, drillers continued to go further and further offshore. In 2009, for example, equipment were deployed in the Gulf of Mexico, capable of operating in underwater with a depth of up to 12,000 feet (3,657.6 metres).[135] In the same year, British Petroleum (BP) announced that the company managed to drill a well located in Keathley Canyon block 102, approximately 400 kilometres south east of Houston, in the Gulf of Mexico.[136] The total depth of the well was approximately 10,685 metres, which was at that time "one of the deepest wells ever drilled by the oil and gas industry".[137] At the time of writing, Transocean holds the world record for drilling in the deepest waters. Its ultra-deepwater drillship, Dhirubhai Deepwater KG1, booked the world water depth drilling record in 10,385 feet off the eastern coast of India in February 2013 working for ONGC.[138] With the help of these technologies and equipment people can reach deeper to the seabed and farther beyond the territorial sea.

The unilateral and sporadic claims described above, to an extent, stimulated conflicts and disputes among neighbouring States. The emergence of new States also contributed to the complexity of maritime claims. The number and length of potential maritime boundaries increased significantly and, inevitably, the scope for overlapping claims and maritime boundary disputes was similarly increased, given the significant extension in the spatial scope of maritime claims coupled with their enthusiastic adoption by coastal

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[132] See above note 122.
[133] A Brief History of Offshore Oil Drilling, Staff Working Paper No. 1, National Commission on the BP Deepwater Horizon Oil Spill
and Offshore Drilling, p. 7
[134] A Brief History of Offshore Oil Drilling, see above note 133, p. 8
[135] A Brief History of Offshore Oil Drilling, see above note 133, p. 12
[136] British Petroleum, 2009. BP Announces Giant Oil Discovery in the Gulf of Mexico. Available at <http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=7055818>
[137] See above note 136.
[138] Transocean, 2013. Firs & Records. Available at <http://www.deepwater.com/fw/main/Firsts-and-Records-4.html>, on 20 July 2013.

States. In order to accommodate claims by coastal States as well as to prevent excessive claims over large maritime areas, a clear concept and law concerning maritime jurisdiction was inevitably required.

In the post-World War II period, there have been three major efforts towards the codification of international law concerning maritime jurisdiction and other ocean affairs. The first was made through the first UN Conference on the Law of the Sea (UNCLOS) held in Geneva in 1958. The conference produced four conventions,[139] namely the Convention on the Territorial Sea and the Contiguous Zone;[140] the Convention on the High Seas;[141] the Convention on Fishing and Conservation of the Living Resources of the High Seas;[142] and, the Convention on the Continental Shelf.[143] The last convention can be considered as the most popular and successful, with 53 States ratifying it.[144] Through the 1958 Convention on the Continental Shelf, States were able to explore and exploit the non-living resources of their sea beds from the early 1960s with confidence. However, the 1958 Convention on the Continental Shelf did not manage to settle the definitive breadth of the territorial sea.

UNCLOS II was held in 1960, which was intended to solve the problems left in UNCLOS I and in particular the outstanding question of the breadth of the territorial sea. Although a proposal for a six nautical miles of territorial sea with a six nautical miles of fishing zone seaward of that came extremely close to being adopted (falling one vote short of the two-thirds majority required), UNCLOS II may be considered as a failure since there was no convention agreed.[145] Following the failure of UNCLOS II, UNCLOS III was convened, started in 1973 in New York, the United States of America. After a nine-year debate, the conference finally reached conclusion with agreement on

[139] Collectively these Conventions are often termed the "Geneva Conventions" or the "1958 Conventions". Hereinafter they are referred to as the "1958 Conventions".
[140] Convention on the Territorial Sea and Contiguous Zone, opened for signature 29 April 1958, 516 UNTS 205 (entered into force 10 September 1964).
[141] Convention on the High Seas, opened for signature 29 April 1958, 450 UNTS 11 (entered into force 30 September 1962)
[142] Convention on Fishing and Conservation of the Living Resources of the High Sea, opened for signature 29 April 1958, 559 UNTS 285 (entered into force 20 March 1966).
[143] Convention on the Continental Shelf, opened for signature 29 April 1958, 499 UNTS 311 (entered into force 10 June 1964). The Convention is also called the Geneva Convention on the Continental Shelf, 1958 or in short, the 1958 Convention.
[144] TALOS, 2006, see above note 41, Chapter 1- 4.
[145] Ademuni-Odeke, 1998. Bareboat Charter (ship) Registration, Kluwer Law International, Boston

the text of the United Nations Convention on the Law of the Sea (LOSC), which was opened for signature on 10 December 1982.[146]

2.3 Baselines

In LOSC, the term baseline appears for the first time in Article 3 regarding the breath the territorial sea. Baselines are often termed as territorial sea baselines[147] but they are in fact the reference of all maritime zone of jurisdiction, not only territorial sea. The use of term "territorial sea baselines" arguably arises from the phrase "from the baselines from which the breadth of the territorial sea is measured" which is almost always used in LOSC when defining breath of maritime jurisdiction other than territorial sea.[148] Baselines have been defined as "the line from which the outer limits of a State's territorial sea and certain other outer limits of coastal State jurisdiction are measured."[149] In the case of straight baselines and bay closing lines, for example, baselines also represent a separation between internal waters, which lie landward of the baseline and territorial sea, the breadth of which starts from baselines and is measured seaward.[150] Not only are baselines important for the purpose of defining the outer limits of maritime jurisdiction, they are also critical in maritime boundary delimitation. This is essentially because baselines are required in order to construct maritime boundaries, especially when equidistance method is applied (see below).

This section discusses types of baselines provided for by LOSC. These include normal baselines, straight baselines, archipelagic baselines, baselines closing mouth of a river, baselines closing bays, and the role of low-tide elevations (LTEs) in baselines definition. As noted above, all of these baselines provisions are relevant to Indonesia and its neighbours and, by extension, to the delimitation of their maritime boundaries.

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[146] United Nations, *United Nations Convention on the Law of the Sea*, Publication no.E97.V10, (United Nations, New York, 1983). See 1833 UNTS 396, opened for signature 10 December 1982, Montego Bay, Jamaica (entered into force 16 November 1994). Also available at: <http://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm>. Hereinafter Law of the Sea Convention, LOSC. There are several abbreviations used to refer to the LOSC. For a comprehensive discussion about this, see: Edeson W. R. 2000. Law of the Sea Convention: Confusion over the Use of ``UNCLOS", and References to other Recent Agreements, *The International Journal of Marine and Coastal Law,* Vol 15, Number 3.

[147] Geosciences Australia, for example, uses the term of "territorial sea baselines" at <http://www.ga.gov.au/marine/jurisdiction/maritime-boundary-definitions.html>. See also, Willheim, E. "Australia-Indonesia Sea-Bed Boundary Negotiations: Proposals for a Joint Development Zone in the Timor Gap", *Natural Resources Journal* Vol 29 (1989) pp. 821-842.

[148] See for example, LOSC Article 33 (2) for contiguous zone, LOSC Article 57 for EEZ, and LOSC 76 (1) for continental shelf.

[149] TALOS, 2006, see above note 41, Appendix 1-7.

[150] Carleton, C. and Schofield, C. H. 2001, see above note 76, p. 17.

2.3.1 Normal Baselines

Normal baselines, as defined in Article 5 of LOSC, consist of "the low-water line along the coast as marked on large-scale charts officially recognized by the coastal state".[151] As a general definition, the normal baseline can be considered the low-water line along the continental shore and around islands. This definition includes the outer limits of permanent harbour works during low tide,[152] the low-water line along certain low-tide elevations (LTE),[153] and the seaward low-water line of atoll reefs and fringing reefs around islands.[154]

Technically, there are some options and uncertainties related to the definition of the low-water lines that also comprise normal baselines, depending upon, among other things, the length of tidal observations/surveys. In general, the longer the period of observation the wider the range of possibilities in terms of the location of the low-water line, which means the possibility of identifying a lower low-water line and therefore a correspondingly lower normal baselines. Unsurprisingly, coastal States tend to favour the use of the lowest low-water line possible since the lower the low-water line chosen, the further seaward the location of normal baselines will be, which, in turn, can cause maritime limits to be 'pushed' or advanced further seaward.[155] That said, it should also be recognised that the primary purpose of nautical charts is as an aid to safety of navigations, rather than with a view to assisting in the definition of maritime claims and boundaries. Opting for the lowest low-water line as the line shown on the chart clearly has the objective of illustrating and highlighting potential hazards to navigation on the chart.[156]

A commonly adopted option by coastal States for representing the low-water line is the lowest astronomical tide (LAT). This vertical datum is considered as the lowest possible low water line in any astronomical circumstances and average meteorological conditions. In order to properly ascertain LAT a observations over a 18.6 year period are required. This is essentially to take into account astronomical variations over time, specifically, "identified as the relative rotation of the lunar and solar orbits or regression

[151] LOSC, Article 5.
[152] LOSC, Article 11.
[153] LOSC, Article 13.
[154] TALOS, 2006, see above note 41, Appendix 1-7; LOSC, Article 6
[155] Schofield and Arsana, 2010, ABLOS 2010
[156] Schofield, C.H. (2009) 'Shifting Limits?: Sea Level Rise and Options to Secure Maritime Jurisdictional Claims', *Carbon and Climate Law Review*, Vol.4 (2009): 405-416, at 408.

of the lunar nodes".[157] Since LAT is the lowest possibility during a period of almost 19 years, the somewhat counter-intuitive reality is that the low-water line represented by LAT, that in keeping with Article 5 of LOSC defines the interface between land territory and maritime space, is almost always submerged.

In their designation, normal baselines do not require coastal States to make any active claim or publication, in contrast to other types of baselines, for instance, straight or archipelagic baselines, which need to be actively claimed, defined and publicised.[158] In addition, if a State does not publish any other type of baselines, then it employs normal baselines since these are, in effect, "a coastal State's default baselines."[159] Since normal baselines are coincident with the low water line, sea level is an important issue in the definition of normal baselines. Even for other types of baselines such as straight and archipelagic baselines (see below), the location of the normal baseline and therefore sea level is also essential since such baselines defined by straight lines need to be anchored at turning points where sea and land intersect during low water line. For example, with respect to straight baselines, Article 7(1) of LOSC provides that such baselines may be defined under certain circumstances but that they need to join "appropriate points" along the coast.[160] Such appropriate points, it can be confidently presumed, should be located on the low water line along the coast.

Among the technical issues arising regarding the use of the low water lines is that there is no fixed definition in LOSC concerning types of low water line to be used. The use of chart datum, that is vertical reference for nautical chart, will affect the location of baselines. The 'rule of thumb' is that the higher the chart datum is, the closer landward the location of baselines will be.[161] The height difference between two chart datum, for example, can, however, have variable impacts in terms of the horizontal location of baselines. The same difference of two vertical datums can have different horizontal impacts on different coastal areas possessing different gradient. The steeper the morphology of the coastal area, the less the impact will be in the horizontal plane. A

[157] Sobey, R. J., (2005), Extreme low and high water levels, Coastal Engineering, Vol. 52 p. 65
[158] LOSC, Articles 16 and 47.
[159] Beckman, R., and Schofield, C., (2009), Moving Beyond Disputes Over Island Sovereignty: ICJ Decision Sets Stage for Maritime Boundary Delimitation in the Singapore Strait, Ocean Development & International Law Vol. 40:1, p. 5.
[160] LOSC, Article 7(1).
[161] Schofield, C. and Arsana, IMA. (2012), Climate change and the limits of maritime jurisdiction, in Warner R. and Schofield, C., Climate Change and the Oceans: Gauging the Legal and Policy Currents in the Asia Pacific and Beyond (Edward Elgar Publishers, Cheltenham UK, 2012).

very flat foreshore gradient, for example 5 per cent or less (around 3° measured from horizontal line), will be affected by around 20 metres of horizontal distance on the location of the normal baseline as a result of 1 metre difference in vertical datum. For the same difference in vertical datum, a steep foreshore gradient, for example 173 per cent or more (around 60° measured from horizontal line), can be affected only by 0.5 metres of horizontal distance. The flatter the foreshore gradient is, the greater the impact of difference in vertical datum can be (see Figure 2.3). In the same manner, error in defining vertical datum can also have variable impacts on the location of baselines horizontally, depending primarily on the gradient of foreshore.[162]

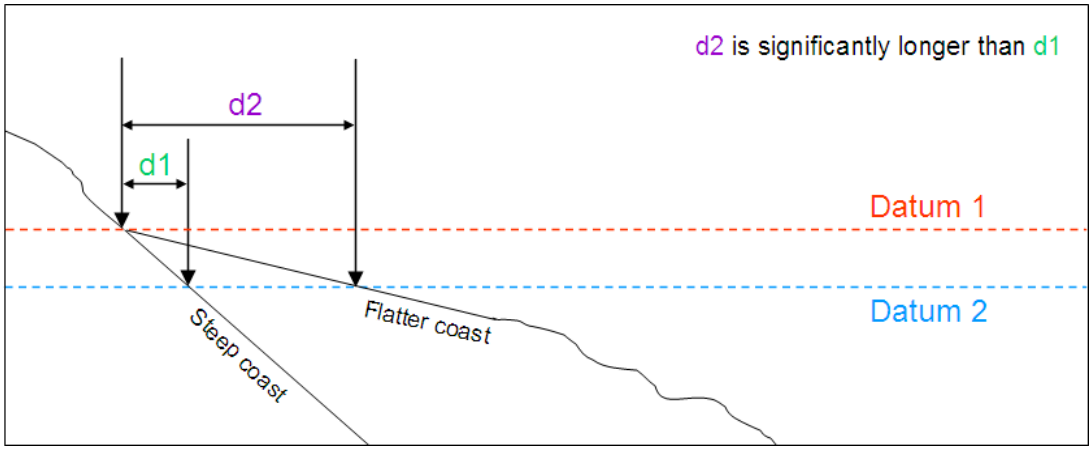

Figure 2.3 The Use of Different Vertical Datums in Relation to Different Gradients of Coast[163]

Another issue affecting normal baselines is sea level rise due to climate change, frequently termed global warming.[164] With relatively rapid sea level rise, the location of the low water line will be highly likely to change relatively quickly, which will, in turn, necessarily alter the location of normal baselines. For instance, even though a coastal State consistently uses LAT as a basis for its charting and therefore also in the definition of its normal baselines, new surveys conducted subsequent to sea level rise will likely result in a different position of the LAT derived low water line compared to a survey concluded twenty years ago. Consequently, there is a need for change in the

[162] Leahy, F.J., Murphy, B. A., Collier, P. A., and Mitchell, D. J., (2001) Uncertainty Issues in the Geodetic Delimitation of Maritime Boundaries, Proceeding of the 2001 ABLOS Conference. Available at <http:// www.gmat.unsw.edu.au/ablos/ABLOS01Folder/LEAHY.PDF>
[163] Illustration by the author.
[164] Debate on climate change and global warming can go on without single agreement even though there have been mounting evidence that it is a reality. Anthony A. Leiserowitz for example discussed five distinct reasons why people doubted the reality of global climate change. See: Anthony A. Leiserowitz, 2005, American Risk Perceptions: Is Climate Change Dangerous? Risk Analysis, Vol. 25, No. 6.

location of normal baselines and this can have 'knock on' impacts on the location of the outer limits of the unilaterally-defined outer limits to maritime zones of jurisdiction measured from and therefore dependent upon such baselines. In other words, movements in the location of baselines will consequently shift maritime limits.

It is worth noting that even though location of baselines will certainly define the extent of the outer limits of maritime zones, in reality, such outer maritime limits are dependant only on particular basepoints. Maritime limits are generally delineated using the 'envelope of arc' approach where the outer most parts of a series of arcs defined at the appropriate breadth from relevant basepoints is taken to represent the outer limit of a particular maritime zone.[165] In most cases, relevant basepoints represent only a small portion of the overall baseline. In other words, in defining the outer limits of maritime claims, the major part of baselines is often ignored because it does not contribute to the outer limit of the maritime zone since it is not used in constructing the envelope of arcs (see Figure 2.4). This suggests that the discussion on relevant baselines in defining maritime limits is actually a discussion on basepoints which form only a small portion of coastlines as a whole.

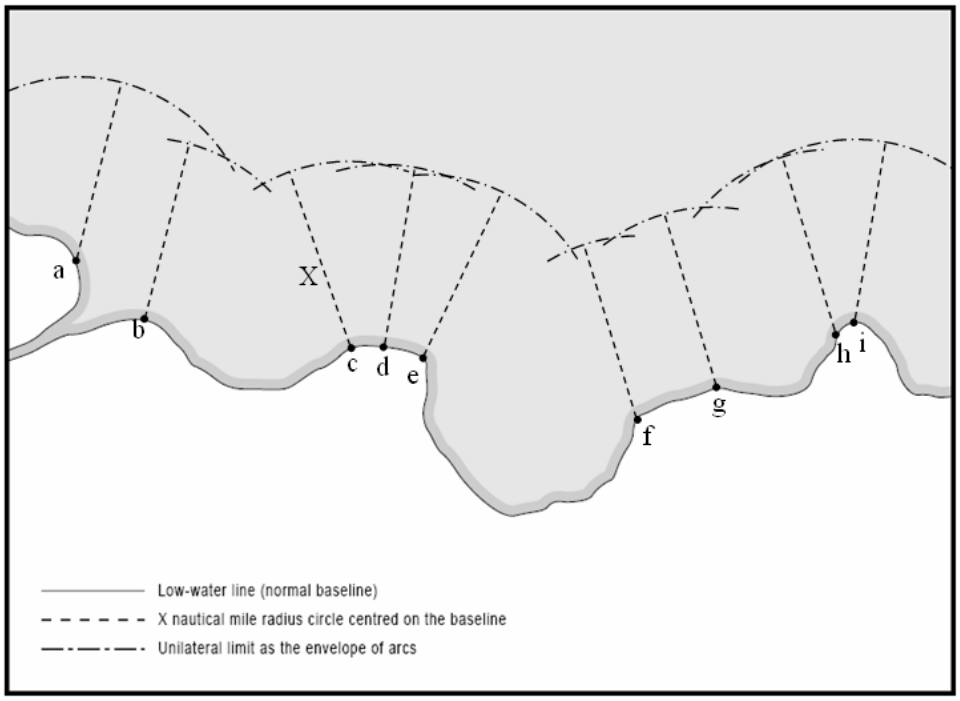

Figure 2.4 Envelope of Arc and Irrelevant Basepoints[166]

[165] Carleton, C. and Schofield, C. H. 2001, see above note 76, p.62.
[166] After Carleton, C. and Schofield, C. H. 2001, see above note 76, p.62.

Ambulatory baselines due to coastal instability are, in fact, not a new concern. It has long been understood that coastal areas are dynamic so normal baselines can change easily overtime or "ambulate".[167] Beyond the fact that coastal areas are dynamic, there is tension between the need to update nautical charts in order to address safety concerns and the need to have fixed position of coastlines and maritime limits from a management and regulatory perspective. The first objective will require regular hydrographic surveys to be conducted, something that will result in updated charts showing different location of baselines, which in turn can generate different maritime limits. On the other hand, as far as the second need is concerned, dynamic and changing location of baselines and maritime limits may be problematic for good and sustainable management of maritime spaces and represent an unwelcome challenge from the perspective of maritime surveillance and enforcement services charged with the task of policing such ocean spaces.

2.3.2 Straight Baselines

LOSC states that straight baselines (for the territorial sea) may be applied if "the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity".[168] A straight baseline is one that contains straight segments joining "appropriate points".[169] LOSC further says that a straight baseline may be defined because of the existence of a delta, which is unstable, but the coastline must also be deeply indented, or cut into, or a fringe of islands must exist as well.[170]

Unfortunately, LOSC does not provide precise definitions for the terms such as "deeply indented and cut into", "fringe of islands", "immediate vicinity" and so on, which allow the establishment of straight baselines.[171] Carleton and Schofield further assert that this uncertainty is one of the reasons "why these provisions have been so widely interpreted in state practice during the last 30 years".[172] As a result of these uncertainties and ambiguities it has been suggested that, "the imprecise language [of Article 7] would allow any coastal country, anywhere in the world, to draw straight baselines along its

[167] Reed, M. (2000), Shore and Sea Boundaries: *the development of international maritime boundary principles through United States practice*, Volume III, (Washington D.C.: US Department of Commerce, US Government Printing Office, 2000) , p. 185.
[168] LOSC, Article 7
[169] LOSC, Article 7(1). See also, TALOS, 2006, see above note 41, Appendix 1-7
[170] LOSC, Article 7
[171] Carleton, C. and Schofield, C. H. 2001, see above note 76, p. 27
[172] *Ibid.*

coast."[173] It is perhaps not surprising that many States tend to interpret Article 7 of LOSC in a markedly liberal manner, in their own favour and according to self-interest.

Figure 2.6 shows Norway's straight baseline construction in accordance with Article 7 of LOSC. Norway is one of the earliest claimants to straight baselines and provides something of a 'classic case' of their application. In the *Anglo-Norwegian Fisheries Case*, the Court found that Norway's straight baselines were not in contrary to the international law.[174] Norway's straight baseline claims arise because of the irregularity of its coastline, especially in the northwest of the country, which is both deeply indented and cut into, and featuring a fringe of islands relatively close to the mainland coast.

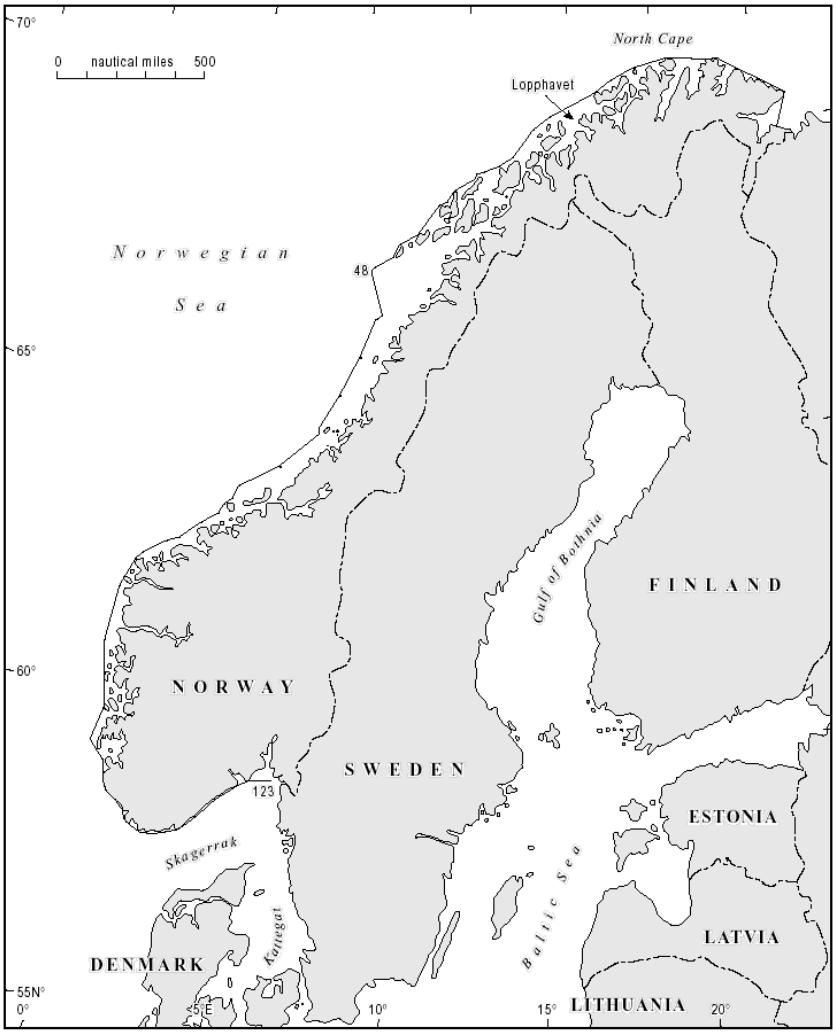

Figure 2.5 Straight Baseline[175]

[173] Prescott, JRV. *The Maritime Political Boundaries of the World* (Methuen, London, 1985), p. 64.
[174] The Anglo-Norwegian Fisheries Case, 1951, (I.C.J. Reports 1951, p. 116)
[175] Carleton, C. and Schofield, C. H. 2001, see above note 76, p. 30

One of the consequences of the use of straight baselines is the emergence of internal waters located to the landward of the straight line segments. In keeping with the terms of Article 7 of LOSC, the designation of the straight baselines "must not depart to any appreciable extent from the general direction of the coast".[176] This implies that the shape or configuration of the straight baselines should be in accordance with the general geographical shape or configuration of the particular coastal State. Generally speaking, straight baselines should not be drawn from or to low tide elevations (LTEs) unless such LTEs have permanent installation such as lighthouses on them which always appears above sea tide in any condition.[177] Alternatively, straight baselines can be drawn to or from LTEs if such designation has received "general international recognition".[178] It remains unclear quite how such "general international recognition" can be ascertained. One other important provision regarding straight baselines is that the baselines "may not be applied by a State in such a manner as to cut off the territorial sea of another State from the high seas or an exclusive economic zone."[179] For the case of Indonesia, straight baselines may not be required in term of defining the reference for measuring the breadth of territorial sea, contiguous zone, EEZ and continental shelf as Indonesia is an archipelagic State and therefore has defined archipelagic baselines. However, Indonesia may designate straight baselines to distinguish internal waters from archipelagic waters, for instance within Indonesia's archipelagic baselines.[180]

2.3.3 Archipelagic Baselines

An archipelagic State, that is one composed wholly of islands or parts of islands,[181] like Indonesia is entitled to designate archipelagic baselines, the segments of which connect the outermost points of the outermost islands and drying reefs of the archipelago, provided that it meets a criterion of a water to land ratio of between 1:1 and 9:1.[182] In other words, a State is entitled to be recognised as an archipelagic if waters enclosed within the baselines system is at least the same size with or larger than, up to nine times

[176] LOSC, Article 7(3)
[177] LOSC, Article 7(4)
[178] See above note 177.
[179] LOSC, Article 7(6).
[180] At the time of writing, this designation has yet to take place. However, this option has been under discussion. A joint research by Dishidros of the Indonesian Navy and the Department of Geodetic Engineering of Universitas Gadjah Mada was conducted to pave the way towards this designation. The author was informally involved in supervising a Universitas Gadjah Mada' student in conducting this research.
[181] LOSC, Article 46.
[182] LOSC, Article 47(1).

of its land size. Indonesia fulfils the criteria for, has claimed this status and, moreover, has been recognised as an archipelagic State so it is entitled to designating archipelagic baselines.

According to LOSC there are nine criteria to be met when an archipelagic State is designating its archipelagic baselines. As previously highlighted, the first one is the proportion of water to land area. Secondly, the length of each segment of the archipelagic baselines shall not exceed 100 nautical miles. However, LOSC also provides that the only exception is that up to "3 per cent of the total number of baselines enclosing any archipelago may exceed that length, up to a maximum length of 125 nautical miles."[183] Thirdly, the entire baselines system shall maintain the shape/configuration of the archipelago and the designation "shall not depart to any appreciable extent from the general configuration of the archipelago."[184] Similar to the rules applicable to straight baselines, the fourth criterion is that archipelagic baselines should not draw such baselines from or to LTEs. However, two exceptions for this are if lighthouses of similar installation are built on the LTE that always appear above sea tide or if such LTEs are wholly or partially located within territorial sea measured from the nearest island.[185] Even though the designation of archipelagic baselines is the rights of archipelagic States, such baselines shalt not "cut off from the high seas or the exclusive economic zone the territorial sea of another State."[186]

Furthermore, LOSC governs that existing rights and all other legitimate interests of a neighbouring State shall continue and be respected if a part of the archipelagic waters of an archipelagic State lies between two parts of that neighbouring State, provided that the neighbouring State has traditionally exercised such rights and legitimate interest in the waters.[187] With regards to computing the ratio of water to land area, LOSC states that land area "may include waters lying within the fringing reefs of islands and atolls, including that part of a steep-sided oceanic plateau which is enclosed or nearly enclosed by a chain of limestone islands and drying reefs lying on the perimeter of the plateau."[188] For purpose of depiction, archipelagic baseline shall be shown on a chart, the scale of which is adequate to show the location of such baselines. Alternatively, the

[183] LOSC 47(1).
[184] LOSC 67(3).
[185] LOSC, Article 47(4).
[186] LOSC, Article 47(5).
[187] LOSC, Article 47(6).
[188] LOSC, Article 47(7).

archipelagic State may issue a list of coordinates of basepoints with specific geodetic datum.[189] The chart or list of coordinates depicting the archipelagic baselines shall be given due publicity and a copy of each shall be deposited to the UN Secretary General.[190]

Indonesia finally completed the designation of its archipelagic baselines and deposited the list of coordinates of its basepoints to the United Nations on 11 March 2009.[191] Indonesia started its efforts to be recognised as an archipelagic State since 1957 when the Prime Minister Djeoanda declared that waters between islands of Indonesia belong to Indonesia through what was known as Djoeanda Declaration.[192] Indonesia's proposal was not accepted on the first attempt by the international community until the conclusion of the Third United Nation Conference on the Law of the Sea (UNCLOS III) that produced the 1982 LOSC. With archipelagic baselines, waters enclosed by the baselines now belong to Indonesia and is called archipelagic waters. Instead of from the coastline of each island, maritime zones such as territorial sea, contiguous zone, EEZ and continental shelf, are now measured from archipelagic baselines.

2.3.4 The Case of Mouth of Rivers

In defining baselines, mouth of rivers also need to be considered. The mouth of a river can be closed in such a way so the line can serve as part of baselines. This is usually done where there is a river directly flowing into the ocean. In such a case, a straight line can serve as the baseline connecting the points on low water across the mouth of the river. LOSC does not specifically govern the length of the line that can be used to close the mouth of a river. This implies that the line can be as long as it takes to close the mouth of a river, so long as it connect relevant entrance points during low water. Similarly, there is no mention about the type of low water line to be used for this

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[189] LOSC, Article 47(8).
[190] LOSC, Article 47(9).
[191] For maritime zone notification and a complete list of the coordinates, see: <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/IDN.htm>, accessed on 24 March 2009.
[192] Issued by and named after Indonesian Prime Minister, Ir. H Djuanda Kartawidjaja. See Andi Hamzah, 'Laut, Teritorial dan Perairan Indonesia: Himpunan Ordonansi, Undang-Undang dan Peraturan Lainnya, Akademika Presindo' [Sea, Territory and Waters of Indonesia: Compilation of Ordinances, Acts, and other Regulations]. (1984), Jakarta, pp. 129-130. An English version of the declaration can be obtained from Djalal, DP, 1990, 'Geopolitical Concept and Maritime Territorial Behavior in Indonesian Foreign Policy' (MA Thesis, University of Simon Fraser University, Canada). Accessed from Simon Fraser University Institutional Repository, at <http://ir.lib.sfu.ca/bitstream/1892/6274/1/b14497426.pdf> on 20 January 2009, 228.

purpose. This leaves space for interpretation and it is not surprising if coastal State tend to interpret this provision in such a way to maximise the length of the closing line.

It is worth noting that the provision regarding mouth of river closing line applies only to rivers that directly flow into the ocean. This implies that it is not applicable to rivers flowing into estuaries forming a bay-like shape. In the later case, the closing line shall follow the provision of bay closing line as set out in LOSC.[193] In addition, sometimes it may be difficult to precisely locate the points forming the mouths of rivers as the possibilities can be endless, especially where the coastline is smooth. However, it is generally understood that a coastal State has discretion to choose appropriate points to draw the closing line, LOSC does not include a specific limit for the permitted length of a river closing line.

2.3.5 The Case of Bays

A bay is a “well-marked indentation whose penetration is in such proportion to the width of its mouth as to contain land-locked waters and constitute more than a mere curvature of the coast”.[194] A bay may also be closed with a line segment to serve as part of baselines. To define a bay closing line, four criteria are to consider: shape of the bay, the area, the length of the closing line and the historic value of the bay to the states in question. In terms of size and shape, Article 10(2) of LOSC clearly states that a bay is “more than a mere curvature of the coast”. This phrase would appear to be potentially open to varied interpretation. However, the area of a bay must also be larger than that of the semi-circle whose diameter is the line crossing its mouth.[195] Furthermore, the straight baseline drawn to close a bay must not exceed 24 nautical miles in length. If the mouth of the bay is wider than 24 nautical miles, a line can be drawn where the bay narrows to 24 nautical miles, provided the semi-circle test is satisfied.[196] The aforementioned provisions do not apply, however, to so-called "historic" bays. Unfortunately, this provision leaves uncertainty since there is not specific definition of what is called an “historic” bay. Figure 2.6 illustrate the definition of bay and how a closing line is designated.

[193] LOSC, Article 10.
[194] LOCS, Article 10(2).
[195] LOSC, Article 10(2).
[196] LOSC, Article 10(5).

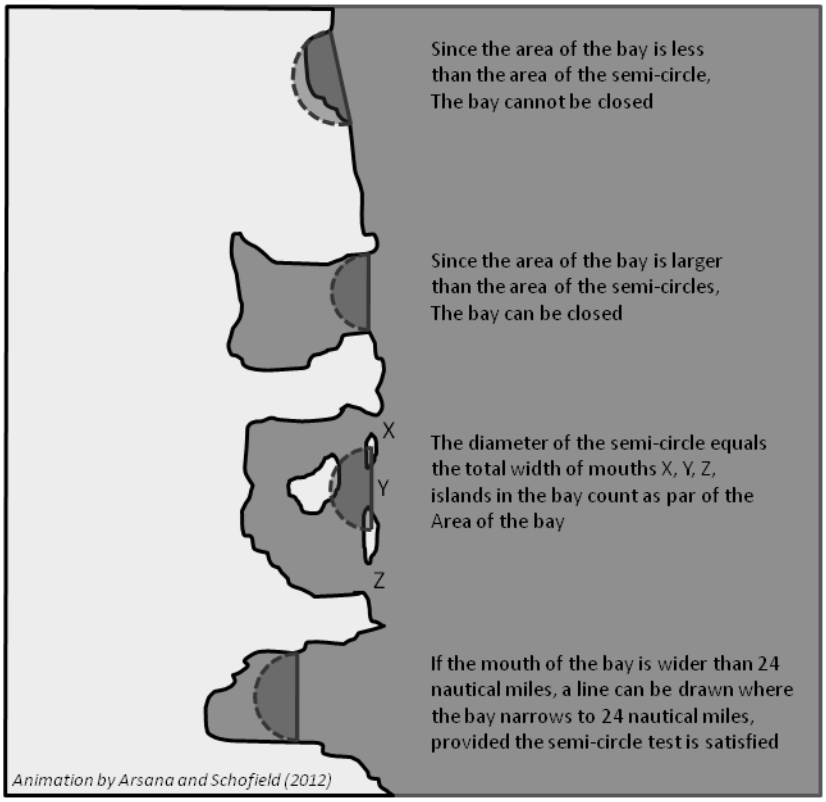

Figure 2.6 Illustration of Different Bay Closing Lines[197]

2.3.6 The Role of Low-tide Elevations

Low-tide elevations of LTEs, as defined by LOSC are areas of land which are naturally formed and is surrounded by waters.[198] An LTE is an object that is submerged during high tide but appears during low tide.[199] In terms of baselines definition, it is stated that an LTE can serve as baselines if it satisfies either one of the following three reasons. Firstly, such LTE is wholly or partly located within the territorial sea measured from a nearest mainland or island.[200] Secondly, such LTE has a structure built on it, such as a lighthouse, which permanently appears above sea level, even though its location is not wholly or partially within territorial sea measured from a nearest mainland or island. Thirdly, an LTE can be used to draw straight baselines if such designation of baselines has received "general international recognition".[201] This implies that an LTE can be used to define baselines even though it does not have structure built on it not it is located within territorial sea measured from a nearest mainland or islands as long as the

[197] Illustration by the author.
[198] LOSC, Article 13(1)
[199] *Ibid.*
[200] *Ibid.*
[201] LOSC, Article 7(4).

designation of such baselines using the LTE is recognised by the international community.

Figure 2.7 illustrates the role of different LTEs in defining baselines. LTE 1 and LTE 2 are located wholly or partially within territorial sea measured from the nearest mainland or island so that the two LTEs can be used as baselines. LTE 3 and 4 on the other hand are located outside the territorial sea measured from the mainland or island so they cannot serve as baselines to contribute to the definition of the outer limit of the territorial sea. LTE 3 and 4 can, however, be used in the designation of straight baselines if they have lighthouse on them or the designation of baselines through them has received general international recognition. It is clear from Figure 2.7 that the size of territorial sea a State may secure may be significantly enhanced because of the existence of LTE around its mainland or islands. Hence, LTEs are potentially important, not necessarily because of their intrinsic value which is often negligible, but as a potential basepoint to advance maritime claims.

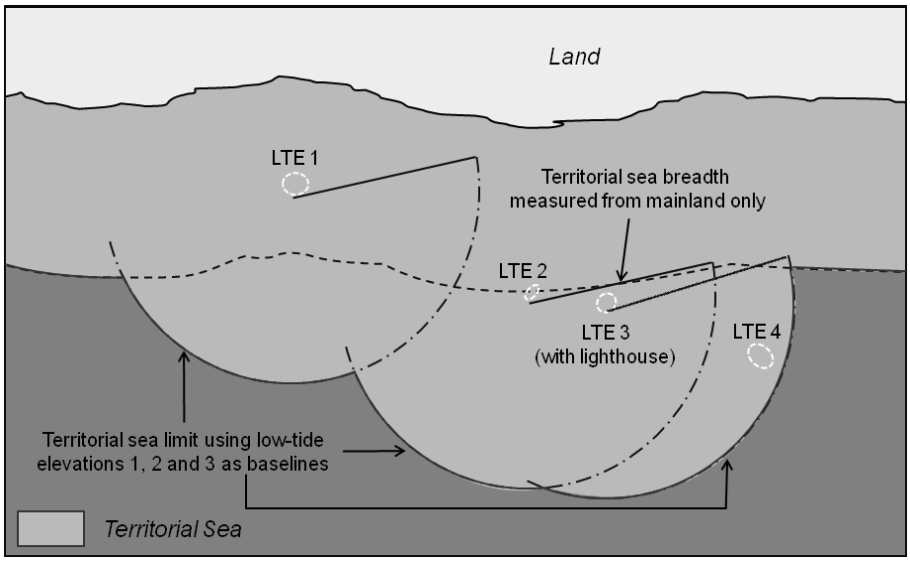

Figure 2.7 The Role of LTE in Baselines Definition[202]

2.4 Maritime Zones of Jurisdiction

Efforts to secure maritime areas by States are of longstanding and, naturally enough, predate and provided a key catalyst for the codification of the law of the sea. After the entry into force of LOSC 1982, there has been general consensus on the types and, critically, spatial scope of the maritime zones of jurisdiction that a coastal State is

[202] The illustration was prepared by the author as part of his contribution to the update of TALOS Manual 5th edition.

entitled to. The maritime zones claimable by coastal States are internal waters, territorial sea, contiguous zone, EEZ and continental shelf, the breadth of which is generally measured from baselines.. The exception to this general rule is the continental shelf. The outer limit of continental shelf is defined using several criteria and constraints beyond merely distance from baselines.[203] Figure 2.8 illustrates different maritime zone of jurisdiction based on LOSC 1982.

This subsection discusses each maritime zone of jurisdiction with properties associated to every one of them. It includes the breadth of each zone, prominent/important property in relation to sovereignty and sovereign rights, and relevant rights and duties of coastal and third States in it. Indonesia, as well as its maritime neighbours claim the maritime zones outlined here so this represents appropriate material supporting the analysis of the issues addressed in this thesis. In particular where overlaps between such zones exist, maritime boundary delimitation is required.

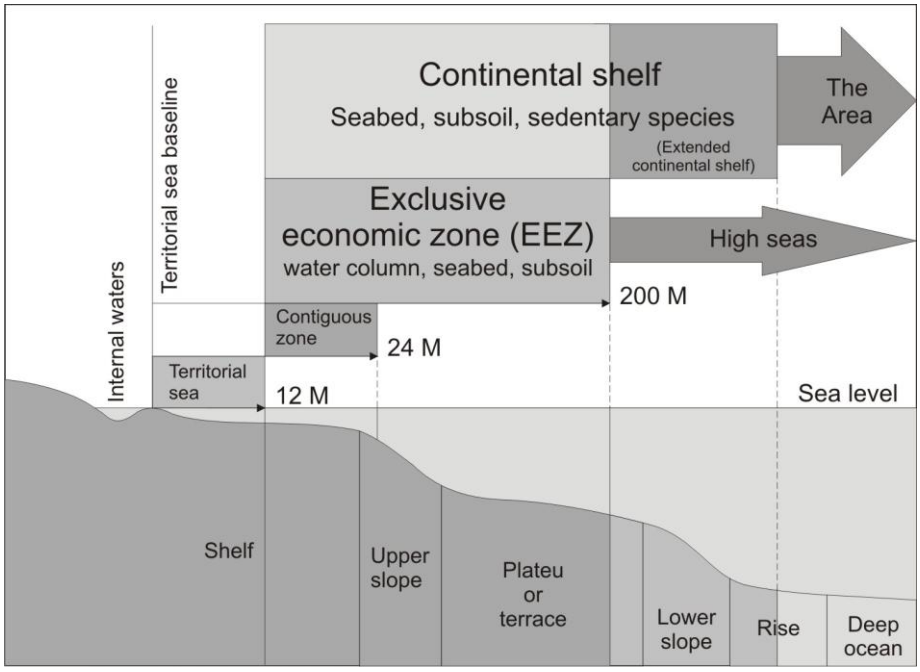

Figure 2.8 Baselines and Maritime Zones Based on LOSC[204]

2.4.1 Internal Waters

Internal waters can be claimed or created if "baselines other than low-water mark are used". LOSC defines that internal waters are the waters landward of the baseline from

[203] The outer limits of continental shelf are defined using certain criteria and constraints as governed by Article 76 of the LOSC.
[204] The figure is adapted from Geoscience Australia. 2006. Maritime boundary definitions. Accessed from <http://www.ga.gov.au/oceans/mc_amb-bndrs.jsp> on 7 September 2009.

which maritime zones are measured.[205] Internal waters only exist when a coastal State designates straight baselines such as a bay closing line (see subsection 2.3.5) or straight baselines as governed by Article 7 of LOSC (see subsection 2.3.2). However, straight baselines segments forming archipelagic baselines do not create internal waters but archipelagic waters, instead (see subsection 2.4.2). For the case of archipelagic States like Indonesia, it is possible to define internal waters within its archipelagic waters by implementing mouth of river closing line,[206] bay closing line to relevant bays,[207] and ports[208] pursuant to LOSC (See also Figure 2.9).[209]

In its internal waters, a coastal State exercises full sovereignty as it is applied to territorial sea and archipelagic waters. However, right of innocent passage does exist in such internal waters if a designation of straight baselines pursuant to Article 7 of LOSC "has the effect of enclosing as internal waters areas which had not previously been considered as such."[210] Since internal waters fall within a full sovereignty of a coastal State, it is its right whether or not to open its port or bay to foreign vessels. Should it decides to open its port of bay, foreign vessels entering such state's internal waters put themselves within the jurisdiction of the coastal state, where the coastal State can enforce its national law.

For the case of Indonesia as an archipelagic State, internal waters within its archipelagic waters have yet to be defined. Having considered the geographic shape of its individual islands, such as Celebes, Kalimantan, Papua, among others, it is quite conceivable that Indonesia could and arguably should define internal waters within its archipelagic waters by designating relevant baselines to individual islands within the archipelago. Without such designation, all waters within the belt of archipelagic water are considered as archipelagic waters, the properties of which are different from that of internal waters.[211]

[205] LOSC, Article 8(1). See also Churchill, R.R. and Lowe, A.V., 1999, see above note 112, p. 60.
[206] LOSC, Article 9.
[207] LOSC Article 10.
[208] LOSC Article 11.
[209] LOSC Article 50.
[210] LOSC, Article 8(2).
[211] At the time of writing of this thesis, a group of researchers in Indonesia are conducting research on the definition of internal waters within Indonesia's archipelagic waters.

2.4.2 Archipelagic Waters

Archipelagic waters are all waters enclosed within an archipelagic baselines system connecting the outermost points of outer islands on an archipelagic State. This is a special maritime zone that can only be claimed by an archipelagic State. LOSC defines archipelagic waters as those waters enclosed by archipelagic baselines regardless of their depth or distance from the coast.[212] An archipelagic State has sovereignty within archipelagic waters, the air space over them, the seabed, the subsoil and all resources therein.[213] Even though archipelagic States exercise sovereignty over archipelagic waters, the rights of passage by foreign vessels prevail, which is called archipelagic sea lanes passage (ASLP). However, the existence of ASLP shall not affect the status archipelagic waters. The exercise of sovereignty by the archipelagic State over such waters and their air space, seabed and it substratum, and the resources contained therein shall be respected and maintained.[214] Figure 2.9 illustrates archipelagic baselines, waters and other zones, including ASL (dashed lines) that an archipelagic State may designate within its archipelagic waters.

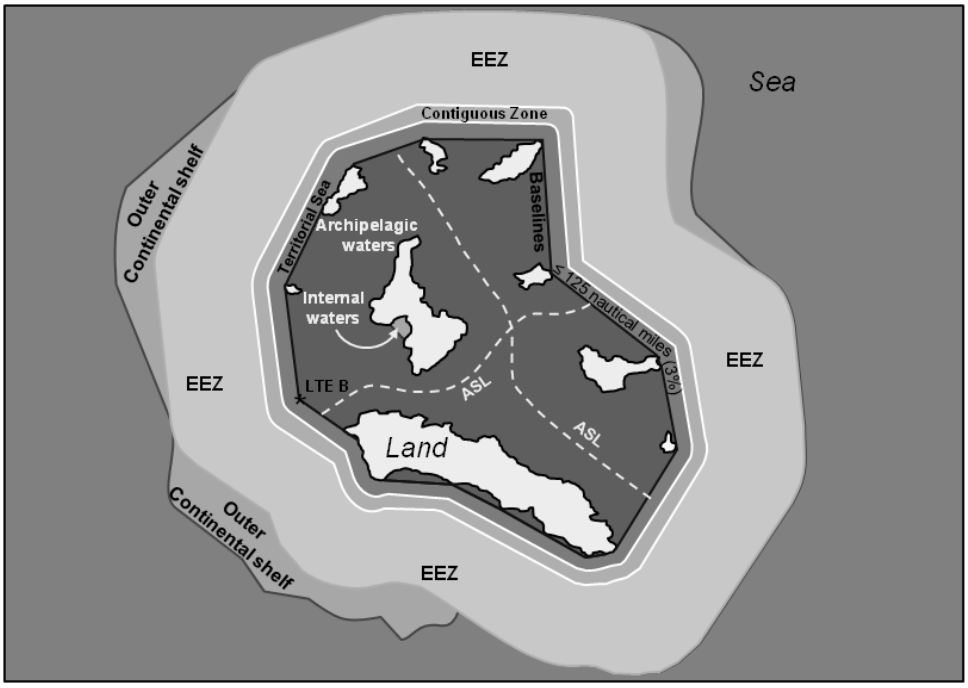

Figure 2.9 Archipelagic Waters and Other Zones Based on LOSC 1982[215]

[212] LOSC, Article 49(1).
[213] LOSC, Article 49(2).
[214] LOSC, Article 49(4).
[215] Illustration by the author.

It is worth noting that the archipelagic State concept is one that has been accepted by the international community only relatively recently, specifically, since 1982 when LOSC was concluded. Before that, an archipelago, like Indonesia, in keeping with the prevailing international law of the sea at the time at least, could not claim waters between its islands beyond its territorial sea. This led to the unwelcome scenario, from the archipelagic State's perspective, of high seas lying between islands constituting part of the archipelagic State is the distance between them was more than twice the breadth of the territorial sea. With the advent of archipelagic State status there are no longer high seas between relatively widely separated islands such as, in Indonesia's case, Java and Kalimantan, for example, since the waters are now regarded as archipelagic waters. In other words, maritime areas, which were previously part of high seas, are now under Indonesian sovereignty as part of its archipelagic waters. On the other hand, other States that have previously enjoyed freedom of navigation in the waters concerned, which formed part of the high seas, demanded that they should still be allowed to navigate in the areas. This is one of the reasons why archipelagic sea lanes (ASL) need to be designated by archipelagic States like Indonesia. From this perspective, ASLs may be seen as compensation that a State should give for it is being recognised as an archipelagic State and for its sovereignty over archipelagic waters. In other words, this is a compromise between coastal States with growing maritime jurisdiction over maritime area adjacent to them and other maritime States insisting on retaining their historical freedom of the seas.[216]

The designation of ASLs is governed by article 53 of UNCLOS which consists of 12 paragraphs. The article in fact does not oblige an archipelagic State to designate ASL[217] but if it does, the designation shall include all normal passage routes used for international navigation.[218] The article also states that the passage regime applicable to ASL is archipelagic sea lane passage (ASLP), which permits transiting vessels to operate in their "normal mode" for the purpose of continuous, expeditious and unobstructed transit between one part of the high seas or an EEZ and another part of the

[216] Penny Campbell, Indonesian archipelagic Sea Lanes, Australian Maritime Issues 2005, Papers in Australian Maritime Affairs No.16. pp. 115-119. Accessed from <http://www.navy.gov.au/sites/default/files/documents/PIAMA16.pdf> on 25 April 2013.
[217] Article 53 (1) of UNCLOS states that "[a]n archipelagic State may designate sea lanes and air routes thereabove, [...]"
[218] UNCLOS, Article 53 (4).

high seas or an EEZ.[219] One important provision regarding the designation of ASL is that if a coastal State chose not to designate its ASLs, then the right of ASLP "may be exercised through the routes normally used for international navigation."[220] This apparently requires further clarification regarding the definition "routes normally used for international navigation". Unfortunately, UNCLOS does provide a clear and specific provision on how to define such routes, leaving considerable scope for interpretation. It should not come to one's surprise if such uncertainly may lead to confusion or debate in its practical implementation since each State, whether archipelagic or a third State seeking to navigate through archipelagic waters, might well interpret this provision according to its own interests and to its own advantage.

Indonesia's effort to implement ASLP in its archipelago was initiated following its ratification of LOSC in 1985 through Act Number 17 of 1985.[221] This endeavour culminated in a National Working Group meeting in Cisarua in early 1995. The meeting managed to agree on the designation of three north/south ASLs, which had been proposed during the Indonesian Navy Strategic Forum in 1991.[222] As Puspitawati (2005) neatly summarises this the proposal was submitted to the IMO[223] in 1996 during the 67th meeting of Maritime Safety Commission (MSC-67). Three related institutions and 22 States provided their responses and the majority commented on the lack of east/west ASLs. To address these comments, the proposal was reconsidered. Nonetheless, Indonesia has yet did not come up with a proposal that includes east/west ASLs. In its proposal to MSC-69 delivered to the IMO in London, Indonesia maintained its suggestion of only three north/south ASLs, something which was eventually approved by IMO on 19 May 1998. However, Indonesia's ASLs were considered as "partially designated" since the designation does not include what many States considered to be

[219] UNCLOS, Article 53 (3).
[220] UNCLOS, Article 53 (12).
[221] Indonesia is recorded to ratify the LOSC on (3 February 1986. See, Chronological lists of ratifications of LOSC, see above note 221.
[222] NP Ello, 'Results of IMO's Assembly and IHO's Consultative Meeting on the Indonesian ASL for the Implementation of UNCLOS 1982' [in Bahasa Indonesia] in Puspitawati, D. 2005, The East/West Archipelagic Sea Lanes Passage Through the Indonesian Archipelago, Maritime Studies, Vol. 140, January-February 2005, p. 3.
[223] IMO is considered as the "competent international organization" as governed by UNCLOS, Article 53 (9) for the purpose of the designation of ASLs. There are views however, that question the legitimacy of IMO to be considered as "competent international organization" in this matter. For an argument on this, see for example, Forward, Chris, "Archipelagic Sea-Lanes in Indonesia –Their Legality in International Law," Australian & New Zealand Maritime Law Journal, Vol. 23, No. 2, November 2009, pp. 143-156. Puspitawati, on the other hand views that "the competence of the IMO as the organisation is appropriate." See: Puspitawati, 2005, see above note 222, p. 4.

all normal passage routes used for international navigation and in particular, excluded east/west ASLs.[224]

2.4.3 Territorial Seas

In accordance with LOSC the breadth of territorial sea is up to 12 nautical miles measured seaward from baselines.[225] Within the territorial sea a coastal State exercises full sovereignty[226] covering air space above territorial sea, water column, its bed and subsoil.[227] Coastal State jurisdiction within the territorial sea is not unlike that over archipelagic waters, where States exercise sovereignty over three layers of spaces: airspace, water column and seabed and subsoil. Figure 2.8 and Figure 2.9 both illustrate maritime zones of jurisdiction including territorial sea a coastal State may claim.

Even though a coastal State enjoys full sovereignty over territorial sea, it has to respect the right of innocent passage for foreign vessels. In other words, a coastal State secures the same rights that it has on land but with the State also having an obligation to permit foreign vessels passing its territorial sea as long as "it is not prejudicial to the peace, good order or security of the coastal State".[228] LOSC also states that a passage may be considered prejudicial to the peace, good order or security of the coastal state if the ship engages in certain activities including military activities, pollution, research and survey, immigration regulation, fishing, and communications.[229]

2.4.4 Contiguous Zones

The contiguous zone extends beyond the territorial sea of a coastal State but "may not exceed beyond 24 nautical miles from the baseline from which the breadth of the territorial sea is measured" (see Figure 2.8).[230] For the case of archipelagic State like Indonesia, the contiguous zone is measured seaward from archipelagic baselines extending beyond its territorial sea (see Figure 2.9). In terms of horizontal geographical coverage, the contiguous zone overlaps with the EEZ. This usually brings into question why a coastal State needs to claim a contiguous zone when it can simply claim 200 nautical miles of EEZ. It is worth noting that in the contiguous zone, states are entitled

[224] Puspitawati, 2005, see above note 222, p. 4.
[225] LOSC, Article 3(1).
[226] LOSC, Article 2 (1).
[227] LOSC, Article 2(2).
[228] LOSC, Article 19(1).
[229] LOSC, Article 19(2).
[230] LOSC, Article 33(2).

to "limited powers for the enforcement of customs, fiscal, sanitary and immigration laws".[231] This power of law enforcement seems to be the difference between contiguous zone and EEZ so that a coastal State may see some additional benefit in claiming a contiguous zone.

Unlike the territorial sea, the contiguous zone shall not be claimed from an LTE even though such LTE is located wholly or partially within territorial sea measured from a nearest mainland or island. Similarly, a rock that cannot sustain human habitation cannot either claim EEZ and continental shelf. Such features are only entitled to a 12-nautical miles of territorial sea.[232]

Indonesia for its part has yet to define a contiguous zone. In the Act Number 4/1960 on Indonesian Waters, there is not mention of contiguous zone. However, the term can be found in the Act Number 43 of 2008 on the National Territory, where it is stated that Indonesia's jurisdiction covers EEZ, contiguous zone and continental shelf.[233] The Act Number 43 also asserts that the maximum breadth for contiguous zone is 24 nautical miles.[234]

2.4.5 Exclusive Economic Zone

The exclusive economic zone (hereinafter referred to as EEZ) extends beyond territorial sea, the limits of which shall not exceed 200 nautical miles from baselines.[235] The EEZ may be viewed as a relatively young regime compared to the territorial sea and continental shelf which appeared much earlier. The EEZ was officially recognised in LOSC 1982, allowing coastal States to exercise sovereign rights over a significantly larger maritime areas, provided that available maritime space, that is, distance from other States, allows such coastal State to do so. The EEZ encompasses water column and seabed and subsoil where a coastal State enjoys extensive rights to manage and utilise natural resources, freedom of navigation, rights of aircraft over flight, and "the laying of cables and pipelines".[236]

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[231] LOSC, Article 33(1)(a) . See also: Churchill, R.R. and Lowe, A.V., 1999, see above note 112, p. 132.
[232] LOSC, Article 121 (3).
[233] Act Number 43 of 2008, Article 1(3). On October 28th, 2008, the Indonesian House of Representatives, Dewan Perwakilan Rakyat, DPR passed Act No. 43/2008 on national territory (*wilayah negara*).
[234] Act Number 43 of 2008, Article 1 (7).
[235] LOSC, Article 57.
[236] Churchill, R.R. and Lowe, A.V., 1999, see above note 112, p. 160.

In the EEZ, a coastal State also has jurisdiction to establish and use "artificial islands, installations and structures", conduct "marine scientific research", and protect and preserve the marine environment.[237] Even though a coastal State has exclusive sovereign rights over the EEZ, these rights are specific and restricted in character and coastal States "shall have due regard to the rights and duties of other States and shall act in a manner compatible with the provisions" of LOSC.[238] Furthermore, freedom of navigation remains enjoyable by foreign vessels traversing through a State's EEZ. With regards to exploration and exploitation of marine resources belonging to the seabed falling under EEZ regime, provisions in Part VI shall be applied.[239] In other words, when it comes to seabed resources management in EEZ, the provisions of LOSC applicable to continental shelf are the ones to be applied.

The rights and duties of other States in EEZ are governed by Article 59 of LOSC. In general, LOSC asserts that all States including land-locked ones enjoy freedom of navigation and over flight in EEZ of a coastal State.[240] LOSC also governs that the freedom enjoyed by other States shall be accompanied clearly specified rights and duties with regards to the use of one State's EEZ.[241] In other words, a coastal State, while preserving exclusive sovereign rights over its EEZ, shall not prevent other States from entering the EEZ as long as it is done in accordance with relevant provisions set out in LOSC.

One interesting point to note regarding resource utilisation in EEZs by a coastal State relates to fishing activities. It is clearly stated by LOSC that a coastal State "shall promote the objective of optimum utilization of the living resources in the exclusive economic zone."[242] This must be done with relevant consideration regarding conservation of the living resources.[243] For fishing purposes, for example, a coastal State is required to define an allowable catch,[244] and then use that particular standard in conducting fishing activities. Furthermore, a coastal State "shall determine its capacity to harvest the living resources of the exclusive economic zone."[245] With good

[237] LOSC, Article 56 (1) (b) (i).
[238] LOSC, Article 56 (2).
[239] LOSC, Article 56 (3).
[240] LOSC, Article 58 (1).
[241] LOSC, Article 58 (3).
[242] LOSC, Article 62 (1).
[243] LOSC, Article 61
[244] LOSC, Article 61 (1)
[245] LOSC, Article 62 (2)

understanding on allowable catch and capacity to utilise living resources, a coastal State will then be able to define whether or not the utilisation of living resources at a particular time is within a tolerable range. Should a coastal State be unable to harvest the entire allowable catch, it shall allow other States to utilise the surplus of the allowable catch.[246] This, undoubtedly, should be done with relevant rules and agreement pursuant to LOSC. This provision implies that while LOSC provides exclusive sovereign rights to utilise resources by a coastal State, there is also possibility for equal access to living resources by other States. However, it is worth noting that it is up to the coastal to define its total allowable catch so this provision is therefore not a guarantee for equal access to living resources by other States.

2.4.6 Continental Shelf

Unlike other maritime zones that require an active claim in order for coastal States to be able to exercise their sovereignty or sovereign rights, continental shelf does not require any overt claim. The continental shelf covers seabed which extends beyond territorial sea to the outer edge of the continental margin. The provisions on the continental shelf are contained in Article 76 of LOSC. Compared to the provision concerning the definition of continental shelf in the 1958 Convention, Article 76 of LOSC sets more systematic criteria with higher objectivity in their implementation. Simply put, it sets out clearly the procedure to define the outer limits of continental shelf with certainty, improving provisions for the same purpose in previous codification efforts, especially the 1958 UNCLOS I.

It is important to note that the definition of the outer limits of continental shelf is different from that with respect to other maritime zone of jurisdiction. Defining outer continental shelf limits does not use only distance principles as is relevant to the territorial sea, contiguous zone and EEZ, but also natural prolongation. The definition of outer limits or continental shelf involves two entitlement or allowing criteria[247] and two constraints or 'cut offs'.[248] Interestingly, while the procedure is highly technical and with relatively high certainty, the provision does not come up with one single number when it comes to the breadth of continental shelf measured from baselines. In addition, the definition of outer limits of continental shelf, should it go beyond 200 nautical miles

[246] LOSC, Article 62 (2)
[247] LOSC, Article 76 (4) (a).
[248] LOSC, Article 76 (5).

from baselines, is not purely unilateral. Coastal States need to delineate the outer limits of their continental shelf beyond 200 nautical miles and make submission to the United Nations Commission on the Limits of the Continental Shelf (CLCS) for recommendation.[249] Only after receiving recommendation from CLCS, can a coastal State define its "final and binding" outer limits of its continental shelf beyond 200 nautical miles from its baselines.[250]

2.5 Maritime Boundary Delimitation

Further to the discussion contained in subsection 2.4 above, it is clear that a coastal State, pursuant to LOSC, is potentially entitled, subject to its geographical circumstances and particularly its proximity to other coastal States and thus their claims to maritime jurisdiction, to advance broad maritime zones extending 200 nautical miles and in some cases even further seawards from baselines along the coast. Consequently, many coastal States are in a position to claim very large maritime areas, in some cases significantly larger than its land surface area.[251]

It has been observed that if all coastal States were to make their maximum maritime claims permitted by LOSC, around 44.5 per cent of the world ocean could possibly fall under some form of national jurisdiction. This means that the remaining high seas would encompass approximately 55.5 per cent of world's ocean surface.[252] Interestingly, it seems that should every coastal State claim a full suite of maritime zones, every coastal State would have overlapping claims with at least one of its maritime neighbours. To be able to fully claim EEZ, for example, the distance of a coastal State from its neighbours must be more than two times 200 nautical miles. For the case of continental shelf, the distance required may be even more substantial.[253]

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[249] LOSC, Article 76 (8)
[250] LOSC, Article 76(8).
[251] A good example in this context is provided by Australia which, although it has a very substantial land area of 7.69 million km^2, has a significantly more extensive maritime jurisdiction of 11.39 million km^2 (figures excluding the Australian Antarctic Territory). See, Symonds, P. Alcock, M. and French, C. 'Setting Australia's Limits: Understanding Australia's Marine Jurisdiction' (2009) 93 *AUSGEO News* (March), 1. Available at <http://www.ga.gov.au/ausgeonews/ausgeonews200903/index.jsp>.
[252] Pruett, L. 2004. Area Calculations of the Claims and Potential Claims to Offshore Jurisdictional Zones and High Seas, unpublished data derived from the August 2003 Edition of the Global Maritime Boundaries Database, General Dynamics, Herndon, VA, USA, in Prescott, JRV. and Schofield, C. 2005. *The Maritime Political Boundaries of the World*, 2nd edition, Martinus Nijhoff Publishers, p. 9, 27
[253] Continental shelf can go significantly beyond the 200 nautical miles limit up to 350 nautical miles or even further from baselines. See: LOSC, Article 76.

For distances among most States are less than two times 200 nautical miles, maritime boundary delimitation is required. With respect to the global picture, it is not easy to tell the exact number of maritime boundaries in the world with absolute precision since there are different criteria and assumptions to judge whether or not, for example, a line segment qualifies a single boundary. Considerable progress has been made in the delimitation of maritime boundaries in recent decades.[254] Nonetheless, one credible source asserts that at the time of writing, around 170 maritime boundaries have been agreed of approximately 365 maritime boundaries overall.[255] Thus, only around half of potential maritime boundaries have been agreed.[256]

2.5.1 Principles of Maritime Boundary Delimitation

Considering the breadth of claims to maritime jurisdiction coupled with the geographical location of coastal States in the world and the configuration of their coasts, overlapping claims to maritime zones among them is inevitable. Consequently, coastal States need to share or, more likely divide, the maritime areas that they are in principle each entitled to. This is referred to as maritime boundary delimitation, key elements of which are illustrated in the schematic provided as Figure 2.10.

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[254] See in particular the volumes arising from the American Society of International Law Maritime Boundaries project: Charney, J.I. and Alexander, L.M. (eds.), *International Maritime Boundaries*, Vols.I and II (Dordrecht: Martinus Nijhoff, 1993); Charney, J.I. and Alexander, L.M. (eds.), *International Maritime Boundaries*, Vol.III (Dordrecht: Martinus Nijhoff, 1998); Charney, J.I. and Smith, R.W. (eds.), *International Maritime Boundaries*, Vol. IV (Dordrecht: Martinus Nijhoff, 2002); Smith, R.W. and D.Colson (eds), *International Maritime Boundaries*, Vol. V, (Martinus Nijhoff: The Hague, 2005); and, Smith, R.W. and D.Colson (eds), *International Maritime Boundaries*, Vol. VI, (Martinus Nijhoff: The Hague, 2011).

[255] Personal communication with Dr. Martin Pratt on 13 February 2009. Martin Pratt is the Director of Research of the International Boundary Research Unit (IBRU) University of Durham, UK.

[256] It can also be observed that many of the agreements that have been reached are partial in character either because they only address part of the full length of the potential maritime boundary, such as occurred between Indonesia and Singapore (see Chapter 4.5 and Chapter 7), or because the agreement delimits only one maritime zone, such as the continental shelf, leaving the overlying water column undelimited, as is the case for Indonesia and Malaysia in the Malacca Strait (see Chapter 4.4 and Chapter 8).

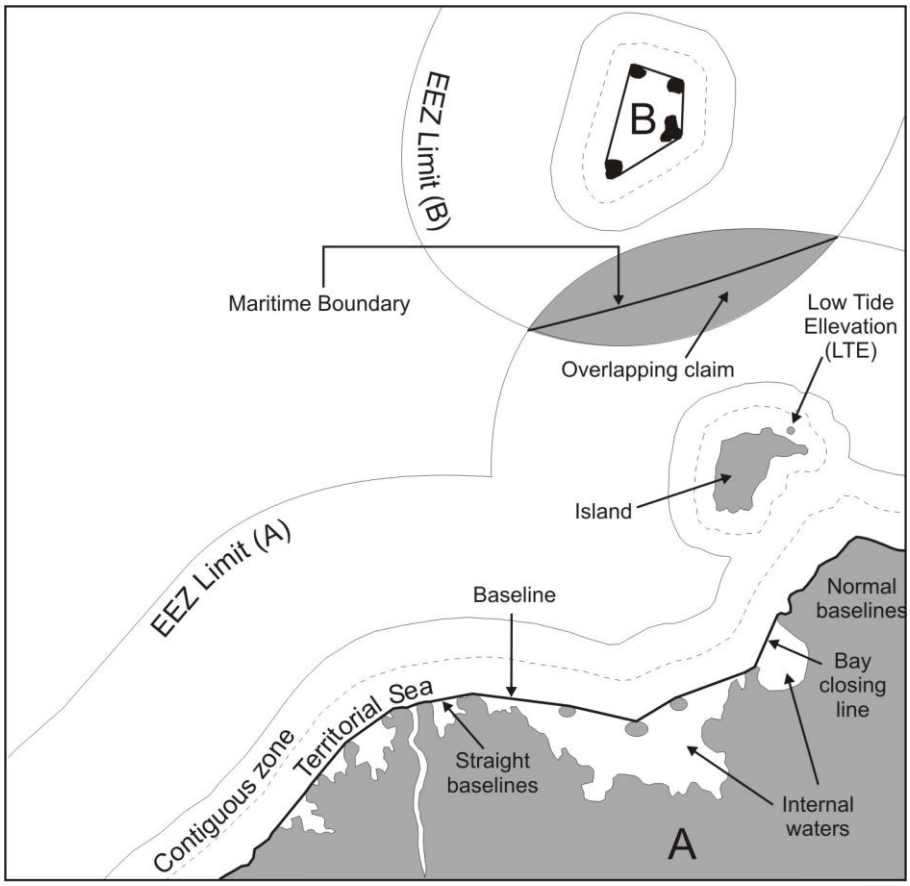

Figure 2.10 Principles of Maritime Boundary Delimitation[257]

The process of maritime boundary delimitation between two or more coastal States is governed by the principles and rules of public international law.[258] International law provides the "rules of the game" explaining how maritime boundary delimitations should be established. However, maritime boundary delimitation is usually resolved either through negotiation among affected parties or by submission of the case to the third party.[259] This third party can be mediators, or by means of an international court or tribunal such as an arbitration tribunal constituted specifically to address a particular dispute or case,[260] the International Court of Justice (ICJ)[261] or the International Tribunal for the Law of the Sea (ITLOS).[262]

[257] Illustration by the author.
[258] Prescott, JRV. and Schofield, C. 2005, see above note 252, p. 218.
[259] *Ibid*.
[260] Arbitration tribunals can be formulated by agreement between the parties to address a particular dispute or can be submitted via an institution such as the Permanent Court of Arbitration such as occurred, for example, between Eritrea and Yemen concerning sovereignty over certain islands in the Red Sea at the first stage of proceedings and then delimitation of the maritime boundary between them at the second stage. See: *Arbitration between Eritrea and Yemen*, *Award of the Arbitral Tribunal in the First Stage (Territorial Sovereignty and Scope of Dispute)* of 9 October 1988 and *Award of the Arbitral Tribunal in the Second Stage of the Proceedings (Maritime Delimitation)*, Award of 17 December 1999, both awards available at, <http://www.pca-cpa.org/showpage.asp?pag_id=1160>.

Figure 2.10 illustrates how overlapping claims occur in relation to the EEZ and continental shelf because distance between States A and B is less than 400 nautical miles but is more than 24 nautical miles. Should the distance between those two neighbouring States have been less than 24 nautical miles then their territorial sea claims would have overlapped with one another. This schematic diagram demonstrates that maritime boundary delimitation can be required for territorial sea, EEZ, or continental shelf, depending on the distance between the States, and specifically between their opposing baselines, in question.

In this regard, the rules governing maritime boundary delimitation are distinct between different maritime jurisdictional zones. For the territorial sea for example, it is explicitly stated by LOSC that "neither of the two opposite or adjacent states is entitled to extend its territorial sea beyond the median line" unless either State involved agrees otherwise, or due to the existence of "historic title or other special circumstances".[263] It is understood from this provision that a particular method of delimitation of the territorial sea is explicitly mentioned in LOSC, which is median line or equidistance line.[264] It can also be noted that some flexibility is built into the delimitation provisions relevant to the territorial sea as a departure from a median or equidistance line is feasible in the light of the existence of unspecified historic or special circumstances. In contrast, LOSC does not specifically mention any method of delimitation for either EEZ or continental shelf boundaries in the case where overlapping claims for these zones between two or more States are identified. The provisions in LOSC relating to the delimitation of EEZ boundaries between States with opposite or adjacent coasts merely mention that such boundaries should be established to "achieve an equitable solution" and "on the basis of international law."[265] Seeking an "equitable solution" is also the term used for the delimitation of continental shelf in the case of overlapping claims between States.[266]Indeed, LOSC Articles relating to the delimitation of the EEZ and continental shelf are identical save for the terms "exclusive economic zone" and "continental shelf" being substituted for one another. Notwithstanding the positive intention of using LOSC

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[261] See: International Court of Justice at <http://www.icj-cij.org>.
[262] See: International Tribunal for the Law of the Sea at <http://www.itlos.org>.
[263] LOSC, Article 15.
[264] The Manual on the Technical Aspects of the LOSC published by International Hydrographic Bureau (2006: 6-3) states that the term "median line" is similar to "equidistance line", "a line every point of which is equidistant from the nearest points on the territorial sea baselines of two States."
[265] LOSC, Article 74(1).
[266] LOSC, Article 83(1).

in using the term "equitable solution" in delimiting EEZ and continental shelf boundaries, the Convention does not specifically mention the method to be used in establishing boundary lines.

This lack of specificity concerning the appropriate method of delimitation stems from a lack of consensus during UNCLOS III with some States desiring an equidistance/special circumstances rule analogous to the provisions for the delimitation of the territorial sea and other States favouring delimitation of the EEZ and continental shelf on the basis of equity considerations. This led to a necessarily ambiguous compromise text designed to satisfy the majority of States by avoiding mention of a particular delimitation methodology. As the Arbitral Tribunal in the Eritrea-Yemen Arbitration stated in reference to Article 83, this was "a last minute endeavour…to get agreement on a very controversial matter", and therefore, "consciously designed to decide as little as possible."[267] The consequence of this lack of precision in the delimitation provisions of LOSC in relation to EEZ and continental shelf boundaries is that there is significant scope for contrasting and conflicting interpretations and therefore maritime boundary disputes.

2.5.2 The Development of Approaches to Maritime Delimitation

Prior to the entry into force of LOSC, maritime boundary delimitation was already viewed as a significant issue. Coastal States tended to take the perspective that their maritime boundaries were important in international relations since as early as the first half of the 20th century.[268] The advancement in technology can be regarded as a key contributing factor in this context as this increasingly enabled coastal States to utilise offshore ocean resources far from their land territory. In this case, delimitation is to distinguish between the maritime areas or entitlements of one coastal State from another's regarding fishery, petroleum and other ocean resources as well as concerning other uses of the sea was recognised as being increasingly critical.[269]

Indeed, maritime boundary delimitation far predates the entry into force of LOSC. The vast majority of maritime boundaries were delimited through negotiations between coastal States, rather than through the decisions of third-parties such as international courts and tribunals. However, such State practices was generally characterised by its

[267] Eritrea-Yemen Arbitration, Second Phase, note 155 above, para.116.
[268] Prescott, JRV. and Schofield, C. 2005, see above note 252, p. 215.
[269] S.P Jagota, Maritime Boundary, (Dordrecht, Martinus Nijhoff Publisher, 1985), p.4.

lack of consistency so that they were not ideal for use as a reference or precedent for similar cases that emerged subsequently. In addition, there were no efforts of codification regarding maritime boundary delimitation prior to the works of the International Law Commission (ILC), which eventually were discussed in the first United Nation Conference on the Law of the Sea (UNCLOS I) in 1958.[270] The Hague Codification Conference in 1930, for example, did not deal with maritime delimitation[271] but instead it dealt only with the question of the breadth of territorial sea and contiguous zone.[272]

The codification of maritime boundary delimitation started through the works of ILC, which was triggered by, among other things, by the Truman Proclamation.[273] The ILC managed to produce a draft on maritime delimitation regarding territorial sea and continental shelf which was then discussed in the UNCLOS I in 1958. With minor changes to the works of ILC, the UNCLOS I was concluded with four Conventions.[274] Basically, the 1958 Conventions suggest that the basic principle of maritime boundary was use of the median line or equidistance line unless another boundary line was justified by special circumstances or historic title.[275]

The next important codification effort regarding maritime boundary delimitation was through UNCLOS III which took place for nine years from 1973-1982 and eventually produced the 1982 LOSC. Meanwhile UNCLOS II in 1960 may be considered as an inconclusive effort of codification in this case since it did not manage to produce any provisions relevant to maritime boundary delimitation. Principles of maritime boundary delimitation governed by LOSC are in large part influenced by the maritime boundary delimitation cases taking place prior to UNCLOS III.

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[270] Sora Lokita, "The Role of The Archipelagic Baselines in Maritime Boundary Delimitation" (New York: UN-Nippon Fellowship paper, 2010), p.32.
[271] S.P. Jagota, 1985, see above note 269, p. 49.
[272] Official Documents of Conference for the Codification of International Law, First Report Submitted to the Council by the Preparatory Committee for the Codification Conference, The Hague, March 13, 1930, available at <http://www.uniset.ca/naty/maternity/24AmJIntLSpSup1.pdf> p. 33.
[273] The Truman Proclamation, see above note 119.
[274] See above note 139, 140, 141, 142, 143.
[275] The 1958 Convention on the Territorial Sea and Contiguous Zone, Article 12; The 1958 Convention on the Continental Shelf , Article 5; See also, S.P. Jagota, 1985, see above note 269, p. 56.

Three key cases relevant to the development of maritime boundary delimitation in LOSC are Grisbadarna Arbitration of 1909,[276] the North Sea Continental Shelf Cases of 1969,[277] and the Anglo/French Arbitration of 1977.[278]

In the Grisbadarna case, arguably the first maritime boundary delimitation case of the modern era, Sweden and Norway asked the Permanent Court of Arbitration to interpret the 1661 treaty on maritime delimitation between the two States in Grisbadarna area, dealing with the division between the territorial seas of the parties. In principle, the court decided the case mainly by considering the effective presence of the parties in question in the concerned region. The court found that Sweden had demonstrated effective presence in the region before Norway showed a similar presence.[279] In addition, survey activity conducted by Sweden was evident to be much earlier and more extensive than that conducted by Norway.[280] It is also worth noting that the court decided the case not only based on sovereign acts on the part of Sweden but also with adequate consideration to fishing activities conducted by the Swedes. The outcome of this case demonstrates in particular how historic factors or title can have a powerful influence in maritime boundary delimitation for the territorial sea.[281] This also shows, to an extent, how the Grisbadara case had an influence and echo in the provisions set out in Article 15 of LOSC regarding territorial sea delimitation, which itself is a verbatim repetition of Article 12 of the 1958 Convention on the Territorial Sea and Contiguous Zone, particularly with regard to the reference to historic title and special circumstances.[282]

In the North Sea Continental Shelf cases, three parties, the Federal Republic of Germany (that is West Germany), Denmark and the Netherlands asked the International Court of Justice (ICJ) to state the principles and rules of international law applicable in the delimitation of continental shelf between them.[283] The cases were between Germany

[276] Permanent Court of Arbitration, The Grisbadarna Case Norway v. Sweden Award of the Tribunal (hereinafter referred to as Grisbadarna case), available at: <http://www.pca-cpa.org/upload/files/Grisbadarna%20award%20English%20edited.pdf>
[277] North Sea Continental Shelf (Federal Republic of Germany v. Denmark and Netherlands), Judgment, I.C.J. Reports 1969, p.3.
[278] The 1977 Arbitration between the United Kingdom and France on the Delimitation of the Continental Shelf, available at International Law Reports, Vol 54. pp.6-213.
[279] See above note 276, p. 7.
[280] See above note 276, p. 7.
[281] Nuno, S.M. Antunes, 2003, see above note 79, p. 45.
[282] LOSC, Article 15.
[283] North Sea Continental Shelf (Federal Republic of Germany v. Denmark and Netherlands), Judgment, I.C.J. Reports 1969, p.3.

and Denmark on one hand and between Germany and the Netherlands on the other. Geographically speaking, Germany is located in an inconvenient location between the Netherlands and Denmark along a concave coastline. This geographical fact is disadvantageous for Germany if equidistance lines are applied in maritime delimitation between Germany and the Netherlands and between Germany and Denmark. In essence German entitlements on the North Sea are 'squeezed' if equidistance is used to delimit maritime boundaries between the three States concerned.

However, the ICJ rejected the proposal of the Netherlands and Denmark arguing that the delimitations had to be carried out in accordance with the principle of equidistance as stipulated in Article 6 of the 1958 Geneva Convention on the Continental Shelf.[284] Germany was not a party to the 1958 Convention so it was not bound by provisions in it. Furthermore, although the ICJ noted that a median line between opposite States usually resulted in an equal division of the maritime space involved,[285] and that the majority of maritime boundary agreements at the time were based on the equidistance principle,[286] the Court stated that the equidistance principle was not a necessary consequence of the general concept of continental shelf entitlement, that it had not become a rule of customary international law and therefore was not obligatory.[287] The Court also found if the equidistance principles "were to be compulsorily" applied in all situations, this would not be consonant with certain basic legal notions"[288] that no single maritime delimitation method "was likely to prove satisfactory in al1 circumstances" and that it should reflect the equitable principles.[289] Therefore, agreement between Parties in question would define relevant maritime boundary between them which is in accordance with equitable principles.[290] For that purpose, as the Court further noted, certain factors were to be taken into consideration.[291] In this decision the Court

[284] See above note 277, para 101
[285] *North Sea Continental Shelf Cases*, para.57.
[286] *Ibid.*, para.75. In particular the examples drawn from State practice cited by the parties to the dispute and concluded following the signature of the 1958 Convention on the Continental Shelf.
[287] *Ibid.* paras 70-82 and 101(a). Indeed, the Court asserted that there was "not a shred of evidence" that the States that had agreed to equidistance-based maritime boundary agreements had done so because they "believed themselves to be applying a mandatory rule of customary international law" (*Ibid.*, para.76).
[288] *North Sea Continental Shelf Cases*, para. 85.
[289] *North Sea Continental Shelf Cases*, para. 55.
[290] *North Sea Continental Shelf Cases*, para. 85.
[291] *North Sea Continental Shelf Cases*, para. 85.

particularly emphasized that the continental shelf of the claimant States was their land territory's natural prolongation.[292]

Two things of particular note arise from the North Sea Continental Shelf Cases. Firstly, this decision led to a general tendency to retreat or step back from the use of equidistance principles, contributing to the emergence of the equitable approach in maritime delimitation. Secondly, the concept that continental shelf is the natural prolongation of land territory emerged and began to have significant impact on maritime delimitation. These developments were important influences on the 1982 LOSC, leading to the debates at UNCLOS III that resulted in the adoption of the compromise text contained in Articles 74 and 83 on the delimitation of the EEZ and continental shelf respectively. That is, the aspirational but ambiguous goal of reaching an "equitable solution" in EEZ and continental shelf delimitation.[293] Furthermore, the natural prolongation concept also had fundamental influence in relation to the formulation of the provisions concerning how the outer limits of continental shelf are defined in LOSC, which are significantly different from the procedure governed by the 1958 Convention.[294]

The third case that influenced the principle of maritime boundary delimitation in LOSC is the Anglo/French Continental Shelf Arbitration.[295] In this case the United Kingdom and France failed to agree on continental shelf delimitation between them in the English Channel and extending into the Atlantic Ocean so that they opted to bring a case before a special Court of Arbitration to resolve the issue. In the decision, the Tribunal applied different approaches for maritime delimitation in the English Channel and the Atlantic Ocean. While for the Atlantic region, the Tribunal applied the method of half-effect to Scilly Isles (UK) with respect to equidistance line,[296] in the English Channel, the Tribunal applied mainland to mainland equidistance line for provisional delimitation.[297] However, the Channel Islands were only attributed a 12 nautical mile enclave of

[292] See above note 277, para 101
[293] LOSC, Articles 74 and 83
[294] LOSC, Article 76
[295] The 1977 Arbitration between the United Kingdom and France on the Delimitation of the Continental Shelf, available at International Law Reports, Vol 54. pp.6-213.
[296] See above note 278, para 251
[297] See above note 278, para 103

territorial sea so that the final line was modified from mainland to mainland equidistance line.[298]

The decision on the Anglo/French Continental Shelf Arbitration provided two distinct developments that can be highlighted. Firstly, the Tribunal found that natural prolongation is not a suitable aspect to consider in the delimitation of continental shelf between two or more States where territories of the States are adjacent to each other on a single continuous area of continental shelf.[299] Secondly the Tribunal managed to include State practice to bridge the gap between equitable principles and equidistance line emerged from the North Sea Continental Shelf Cases.[300] In this case, the solution by giving a 12 nautical mile enclave of territorial sea to Channel Islands can be viewed as being derived from the experience of State practice.[301] The Tribunal seemed to take the view that the adjustment and modification of the strict equidistant line represented a way to achieve an equitable solution – in a manner analogous to a number of instances in State practice. Instead of totally rejecting the use of strict equidistance line, the Tribunal chooses to use it with a modification deemed necessary in order to achieve a fair outcome.[302] This is a good example on how to interpret relevant circumstances to archive equitable solution, a fundamental principle adopted by LOSC in continental shelf[303] and also EEZ[304] delimitation.

During the negotiation of UNCLOS III (1973-1982), the principle of maritime boundary delimitation was intensively debated. For territorial sea delimitation, it was generally accepted that equidistance or media line is the most suitable method, especially for the case of opposite States. For adjacent States, on the other hand, the use of equidistance line has been highly influence by geographical configuration of States in question. For both cases, however, it is clearly stated that other special circumstances, such as historic title, may also impact the finally agreed boundary line.[305]

For the delimitation of EEZ and continental shelf, two main approaches proposed by different parties during UNCLOS III were equidistance lines and equitable principles.

[298] See above note 278, para 199-202
[299] Sora Lokita, 2010, p. 38
[300] See above note 281 p. 73
[301] Sora Lokita, 2010, p. 39
[302] See above note 278 para 245-251
[303] LOSC, Article 83
[304] LOSC, Article 74
[305] LOSC, Article 15

Each was supported by a number of States with supporting arguments and rationale that proposed draft delimitation provisions in LOSC.[306] After a lengthy debate, the conference agreed on a compromise wording mentioning the objective of achieving "an equitable result" in Article 74 for EEZ delimitation and Article 83 for continental shelf.

2.5.3 The Role of Small Islands/Rocks/LTEs in Maritime Delimitation

Pursuant to LOSC, islands are capable to claim a full suite of maritime zone of jurisdiction seaward including territorial sea, contiguous zone, EEZ and continental shelf.[307] Rocks that cannot sustain human habitation[308] and LTE (see subsection 2.3.6), on the other hand, have more limited capacity to generate maritime zones of jurisdiction that they can claim. Notwithstanding the differences among islands, rocks, and LTEs, all are potentially usable in designating baselines, either normal, straight or archipelagic (see section 2.3). Accordingly, they are potentially critical for coastal States in securing maritime areas and also in maritime delimitation. This issue was highlighted by Robert Hodgson, a former Geographer at the US Department of State, when he stated that "the single most troublesome natural feature to cloud the maritime limits field has proven to be islands".[309] In a similar view, other respected scholars also note that Article 121(3) of LOSC dealing with rocks has also been the "… source of an extensive and unresolved legal and scholarly debate…."[310]

Disputes concerning sovereignty over islands or rocks also represents one of the causes of pending maritime boundaries. This arises from the longstanding legal principle that "the land dominates the sea".[311] That is, sovereignty over land territory needs to be resolved prior to maritime claims being made. The long dispute between Malaysia and Singapore on the sovereignty over Pedra Branca, Middle Rocks and South Ledge, for example, for around three decades had prevented the two States from resolving maritime boundaries in the Singapore Strait. Not until the case was decided by the ICJ in 2008[312] could the two neighbours start negotiations on maritime delimitation. Similarly, dispute on the sovereignty over Sipadan and Ligitan Islands between

[306] See Sora Lokita, 2010, p. 40-42
[307] LOSC, Article 121 (2).
[308] LOSC, Article 121 (3).
[309] Hodgson, Robert David. Islands: normal and special circumstances. US Department of State, Bureau of Intelligence and Research, 1973.
[310] Prescott, JRV. and Schofield, C. 2005, see above note 252, p. 58
[311] See, for example, Weil, P., *The Law of Maritime Delimitation - Reflections*, (Cambridge: Grotius, 1989), at 50.
[312] Pedra Branca Case, see above note 73.

Indonesia and Malaysia was also one of the causes of pending maritime boundaries between the two States in the Sulawesi Sea. Not until the case was decided by the ICJ in 2002 could Indonesia and Malaysia proceed to maritime delimitation in the area.[313] At the time of writing, the negotiation on maritime delimitation in the area is undergoing (see Chapter 6). Similarly, when the ICJ was asked to define maritime boundaries between Nicaragua and Columbia, ICJ first had to determine which state had sovereignty over seven disputed islands at Alburquerque Cays, Bajo Nuevo, East-Southeast Cays, Quitasueño, Roncador, Serrana, and Serranilla.[314] Without certainty on sovereignty over those islands maritime delimitation between the two States would not have been decided.

In terms of maritime delimitation, islands, rocks and LTEs are important for at least two reasons. Firstly, they are critical to the designation of baselines and baselines are important in maritime delimitation. Secondly, they are important for their location, and effect in maritime delimitation can significantly affect the generated line of delimitation. In the case of archipelagic and straight baselines, the existence of small islands and LTEs is certainly important for they may be part of such baselines system. Location and distribution of such features will define the configuration of archipelagic baselines. Should such archipelagic baselines be taken into account in maritime delimitation, the result will significantly be influenced by the configuration of the baselines. This matters in particular when full effect is given to baselines in maritime delimitation. For the second reason, islands, rocks, and LTEs can affect delimitation. When given full effect, even a small island can significantly affect the result of delimitation line. In recent cases decided by the ICJ, such as *Nicaragua v Colombia* (2012),[315] *Nicaragua v Honduras* (2011) and *Ukraine v Romania* (2009),[316] islands have played an important part in the arguments, addressing technical issues emerged during the proceedings.

While islands are important in defining baselines and consequently are also important in generating maritime limits and boundaries, it has been to a large extent accepted in the international law that a small island should not cause disproportionate effects, in particular because this would not lead to an equitable solution being achieved. This is supported by the, at the time of writing, most recent decision of the ICJ giving reduced

[313] Sipadan and Ligitan Case, see above note 70.
[314] Nicaragua v. Columbia, see above note 60.
[315] Nicaragua v. Columbia, see above note 314.
[316] Black Sea Case, see above note 58.

or nil effect to small islands in maritime delimitation. In the case of Nicaragua v Columbia for example, the ICJ disregarded Bajo Nuevo, Quitasueño, and Serranilla in determining the relevant coasts of Columbia.[317] Furthermore, the Court found that no basepoints were considered to be relevant on Quitasueño, Low Cay, and Serranilla for the construction of media line between Nicaragua and Colombia when the Court designated provisional boundary between the two.[318] The final boundary line between Nicaragua and Colombia was significantly influenced by the effect/weight given to relevant small islands belonging to the two States.[319]

2.5.4 Delimitation in Multizonal Context

The continental shelf and EEZ overlap each other. The EEZ extends beyond territorial sea up to 200 nautical miles from baselines encompassing water column and seabed and subsoil.[320] It is worth nothing, however, that while the seabed and subsoil form part of the EEZ, they are nonetheless dealt with in accordance with that part of the Convention dealing with the continental shelf.[321] Similarly, continental shelf also extends beyond territorial sea encompassing seabed which may extend beyond 200 nautical miles from baselines.[322] Consequently, when two opposite States are located within a distance of less than two times 200 nautical miles from each other, EEZ and continental shelf between them inevitably overlap. This requires delimitation for more than one maritime zone of jurisdictions, which in this case are continental shelf and EEZ. In many instances globally the delimitation lines applicable to both zones coincide in what can be termed a 'single' maritime boundary (also potentially applicable to territorial sea and contiguous zone delimitation). However, continental shelf and water column (EEZ) maritime boundaries can be distinct from one another.

For the case of Indonesia there are locations where delimitation of EEZ and continental shelf is required. Those locations include the Malacca Strait, South China Sea, the Sulawesi Sea, Ombai Strait, Wetar Strait and the Timor Sea. This may be referred to as delimitation in a multizonal context. The complexity of this kind of delimitation may

[317] Nicaragua v. Columbia, see above note 60, para 152.
[318] Nicaragua v. Columbia, see above note 60, para 202.
[319] For a commentary and analysis on maritime boundary delimitation between Nicaragua and Columbia, see for example: Pieter Bekker, 2013. "The World Court Awards Sovereignty Over Several Islands in the Caribbean Sea to Colombia and Fixes a Single Maritime Boundary between Colombia and Nicaragua", AJIL Insight, Volume 17, Issue 3.
[320] LOSC, Article 57.
[321] LOSC, Article 56 (3)
[322] LOSC, Article 76.

arise due to, among other things, the fact that continental shelf and EEZ emerged at two different times. The EEZ concept was recognised only in 1982 when it was adopted in LOSC while continental shelf was recognised much earlier. When two States delimited maritime boundaries beyond territorial sea between them before the entry into force of LOSC, the tendency was generally to have delimited only the continental shelf. This is also the case of Indonesia in the Malacca Strait, South China Sea and the Timor Sea.[323] Consequently, after the entry into force of LOSC, EEZ delimitation in the same area is required. For the case of Indonesia and Australia, for example, continental shelf boundaries were delimited in the 1970s and EEZ boundary was finalised in 1997.[324] There are two options: EEZ boundary line coincides with previously defined seabed boundary or alternatively the EEZ boundary line run at a different location. The latter option was negotiated by Indonesia and Australia for the case of the Timor Sea where the EEZ boundary line lies to the south of the previously defined seabed boundary line.[325] Consequently, there is an area where the seabed is under Australian jurisdiction but the water superjacent to it is under Indonesia's jurisdiction. In the future, Indonesia has to establish EEZ boundary with some of its neighbours and the challenge will be whether or not to have coincident lines for EEZ and the already established continental shelf lines.

For the case where both EEZ and continental shelf have yet to be delimited, the issue may be less complicated. Examples of locations that reflect this situation are the Sulawesi Sea that requires maritime delimitation involving Indonesia, Malaysia and the Philippines, and Timor Sea in the case of lateral boundaries between Indonesia and Timor-Leste. Another location is Pacific Ocean where Indonesia and Palau have yet to agree on their maritime boundaries. In this case, a single maritime boundary line delimiting both EEZ and continental shelf would seem to be the most obvious and

[323] Indonesia established continental shelf boundaries with Malaysia in the Malacca Strait and South China Sea in 1969, with Australia in the Timor Sea 1970s. See Chapter 4 of this thesis for comprehensive discussion on Indonesia delimited maritime boundaries.
[324] Treaty between the Government of Australia and the Government of the Republic of Indonesia establishing an exclusive economic zone boundary and certain seabed boundaries. See Prescott, JRV., 2002, Australia-Indonesia, Report Number 6-2(6) in Charney J.I. and Smith R. W. (eds) *International Maritime Boundaries*, pp. 2714-2727, Martinus Nijhoff Publishers, the Netherlands.
[325] Herriman, M. and M. Tsamenyi. 1998., "The 1997 Australia-Indonesia maritime boundary treaty A Secure Legal regime for offshore resource development?", Journal of Ocean Development and International Law 29: 361-396.

logical option. Indeed, this approach has also become a norm in maritime boundary delimitation decided by the IJC[326] and ITLOS.[327]

2.6 Methods of Maritime Delimitation

As outlined above, LOSC provides a clear preference for the use of equidistance or median lines for territorial sea delimitation, though with notable exceptions in the case of undefined historic rights or special circumstances.[328] However, the Convention does not offer any equivalent guidance for the delimitation of EEZ and continental shelf with no specific method of delimitation mentioned, merely a general requirement for agreement to be reached in keeping with international law and with a view to achieving an "equitable solution".[329] This implies that any delimitation method is permitted as long as the method allows the States in question to achieve equitable solution.[330] In a negotiation, for example, each party will be free to propose any method of delimitation and any method can be acceptable as long as all parties in question freely agree to implement such a method in the delimitation. That the parties agree to a particular method of delimitation through negotiations strongly suggests that they each consider the resulting maritime boundary line to be a fair and equitable one.

While LOSC does not specify any particular or privileged method of delimitation applicable to the delimitation of the EEZ and continental shelf, several methods have been developed and applied in the delimitation of maritime boundaries through both State practice and the jurisprudence of international courts and tribunals. These methods illustrate how the legal provisions of LOSC have been put into practice and can be considered as a range of options in terms of delimitation methodology with a view to achieving the equitable solution required under the Convention. The following subsections discuss key methods commonly used for maritime delimitation.

2.6.1 Equidistance Lines

As previously discussed (see subsection 2.5.2), equidistance is the most commonly adopted method of maritime delimitation prior to LOSC. The method was explicitly

[326] See, Nicaragua v. Columbia, see above note 60. The ICJ drew a single line for their maritime boundaries.
[327] See for example the case between Bangladesh and Myanmar where ITLOS decided a single boundary line for the two in the Bay of Bengal. See above note 59.
[328] LOSC, Article 15.
[329] LOSC, Articles 74 and 83.
[330] Beazley, technical aspect of maritime boundary delimitation (IBRU, Maritime Briefing Vol 1 No.2, 1994) p.6.

stated as the preferred method of delimitation in the 1958 Convention on the Continental Shelf delimitation, albeit with qualifications concerning.[331] Equidistance line can be defined as the line "every point of which is equidistant from the nearest points on the territorial sea baselines" of the States concerned.[332] The 1958 Continental Shelf Convention and the Article 15 of LOSC also provide similar definitions, only the term "median line" is used instead of "equidistant line" for the case of opposite states.[333] While no definite legal distinction has been made between the terms "median line" and "equidistance line", the technical literature often suggests that the term "median line" is usually used in the case of opposite States, while "equidistance line" is commonly applied in the case of adjacent States.[334] Both terms can be viewed, however, as referring to the exact geometric expression of the mid-line concept.

In the present author's view, the equidistance method has become the foundation to the technical process of delimitation because of two reasons in particular. Firstly, it is a legal method that must be employed in the territorial sea delimitation in the absence of agreement or special circumstances.[335] Secondly, the method is geometrically well defined and objective as well as being "relatively easy to apply, particularly using computer methods" provided that the baselines are clearly defined and undisputed, and gives a unique line as the result.[336] The construction of an equidistance line is detailed in the Manual on the Technical Aspects of the United Nations on the Law of the Sea (TALOS Manual) as illustrated in the following Figure 2.11.

[331] Under Article 6 of the 1958 Convention on the Continental Shelf, delimitation of the continental shelf was to be through the use of median lines unless agreement to the contrary or "special circumstances" existed that justified an alternative approach.
[332] TALOS, 2006, see above note 41, Chapter 6-3.
[333] Legault, L. Hankey, B. (1993). Method Oppositeness and Adjacency, and Proportionality in Maritime Boundary Delimitation. Charney, J.I. and Alexander, L.M. (eds) *International Maritime Boundaries*, Vol. I, Martinus Nijhoff, Dordrecht, pp. 207.
[334] TALOS, 2006, see above note 41, Chapter 6-3.
[335] LOSC, Article 15.
[336] TALOS, 2006, see above note 41, Chapter 6-4.

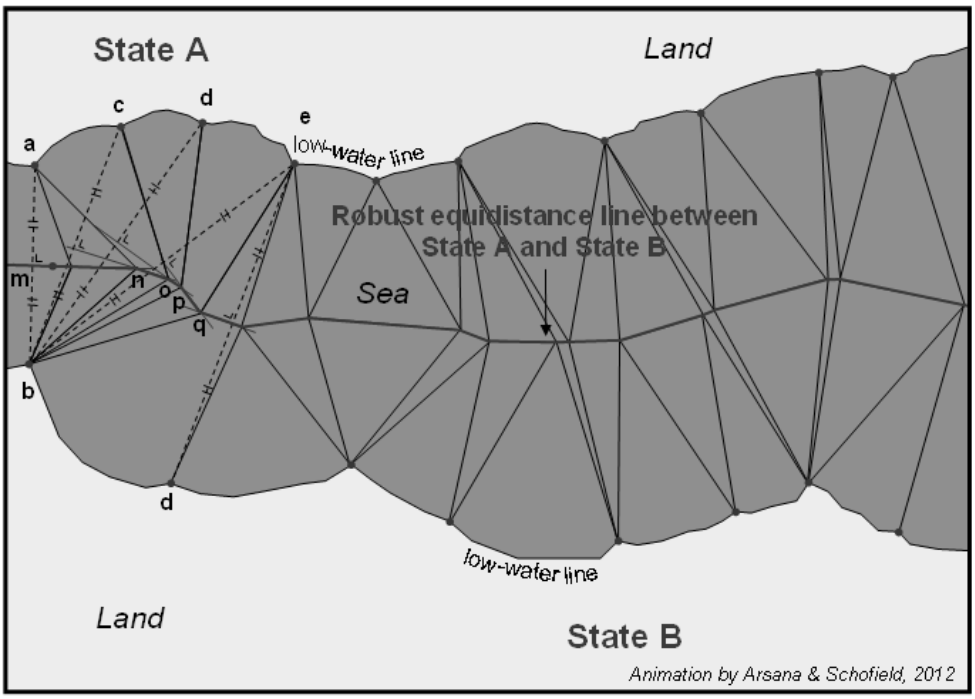

Figure 2.11 The Construction of Equidistance/Median Line for the Case of Two Opposite States[337]

In Figure 2.11, points a, b, c, d and e are the relevant basepoints of States A and B that contribute to the construction of the equidistance or median line between their opposite coasts. It is worth noting that a strict equidistance line will define by itself relevant basepoints from each State. In other words, in constructing a strict equidistance line it is not necessary to predefine contributing basepoints since the method will select relevant basepoint along with the construction of the line.[338] In particular, when using a computer program designed to construct an equidistance line in a geodetically robust manner, provision of information on both sides' baselines will lead to the program identifying relevant controlling or critical basepoints along the baselines and definition of the equidistance line between them. In this research, a leading program specifically designed for constructing equidistance line called CARIS LOTS[339] was used.

For the case of two adjacent States, an equidistance line is as illustrated on Figure 2.12 below.

[337] The illustration was prepared by the author as part of his contribution to the update of TALOS Manual 5th edition, which at the time of writing is being finalised. This is after TALOS, 2006, see above note 41, Chapter 6-5.
[338] For a technical explanation of the construction of equidistance line, see TALOS, 2006, see above note 41, Chapter 6.
[339] See CARIS LOTS's official website at <http://www.caris.com>

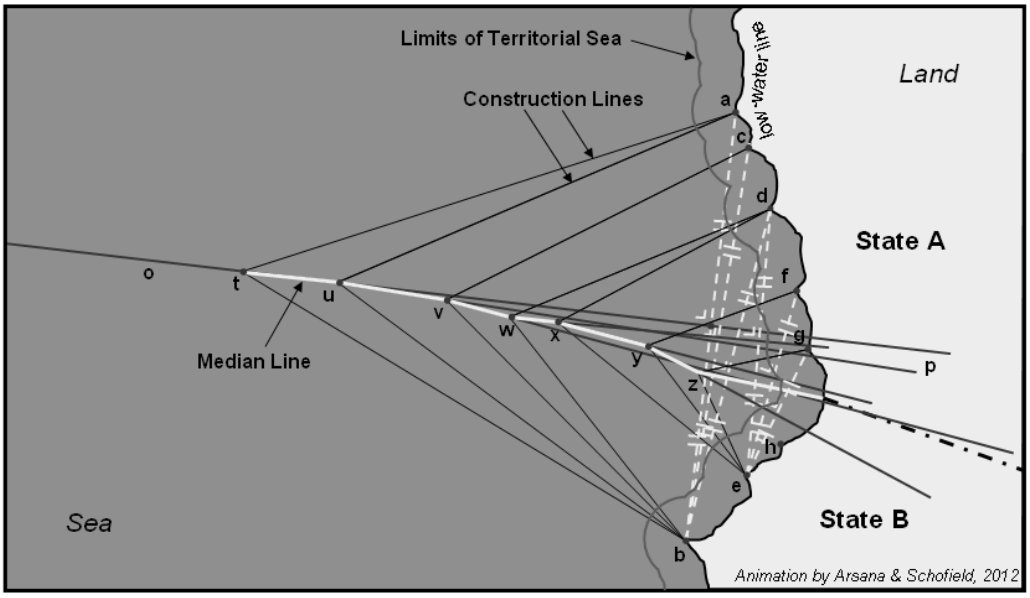

Figure 2.12 The Construction of Equidistance/Median Line for the Case of Two Adjacent States[340]

Even though the equidistance method technically selects relevant basepoints in its execution, in practice, predefinition of basepoints may be required following negotiations and agreement between parties as part of the delimitation process. This may be necessary in order to address the use (or otherwise) of certain basepoints likely to significantly impact on the construction of an equidistance line in a potentially inequitable manner. While dealing with problematic basepoints can be achieved through the modification of a strict equidistance line (see below), an alternative option is to negotiate over which basepoints to use prior to an equidistance line being constructed. Indeed, selection of appropriate basepoints, or rather the elimination of certain basepoints considered to be likely to result in the construction of an inequitable, line has been a notable feature of the recent practice of the ICJ and ITLOS in their construction of a provisional delimitation line in recent cases (see below).

Overall, the reality is that only portions of a State's baseline will contribute to the construction of an equidistance line. The method will tend to utilise only the salient (seaward most) base-points in the construction. The relevant segment of baselines of both States will also affect the number of basepoints selected from each State in the delimitation. The longer the relevant segment the more the basepoints that can contribute to the construction of the equidistance line.

[340] The illustration was prepared by the author as part of his contribution to the update of TALOS Manual 5th edition

2.6.2 Simplified and Modified Equidistance Line

An equidistance line produced by strictly applying the equidistance principle often has an inconveniently large number of turning points, defining what can be regarded as an overly complex line. One of the consequences is the long list of coordinates in a treaty if such a line was used as the maritime boundary. Another issue caused by the large number of turning point is the irregular shape of the boundary line which might be problematic when it comes to law enforcement and boundary management in the future. To deal with this type of circumstance, one option is to simplify the strict equidistance line by reducing the number of turning points.[341] This is often done in such a way that the line is simple enough with fewer turning points but as much as possible still maintain the original overall general shape of strict equidistance line and at the same time achieve an 'area compensation' such that neither side 'loses' maritime space overall through this process. A good example of this can be seen in the maritime boundary between Mexico and the United States, where the number of turning points was reduced both for the case in the Gulf of Mexico the Pacific coast, which in turn resulted in only a very slight exchange in maritime space between the parties.[342] 17 In other words the simplified line should generally not greatly deviate from the strict equidistance line or lead to one side gaining maritime spaces at the expense of the other.[343]

In certain cases, there are other less objective considerations taken into account to produce equitable solutions in maritime boundary delimitation. For example, the predefined basepoints where only prominent basepoints are selected in constructing equidistance or median line, can produce a different shape and less complicated line. Even though this method can also generate a line that generally looks like an equidistance line, this is however, not derived directly from strict equidistance line. This kind of line is often termed as "modified equidistance line".[344]

[341] TALOS, 2006, see above note 41, Chapter 6-8.
[342] Carleton, C. and Schofield, C. H. 2001, see above note 76, p.12.
[343] TALOS, 2006, see above note 41, Chapter 6-8.
[344] TALOS, 2006, see above note 41, Chapter 6-8.

2.6.3 Methods Derived from Equidistance Principle

2.6.3.1 Partial Effect

Strict or simplified equidistance lines do not always guarantee an equitable solution for maritime delimitation. In the case of small islands located at an inconvenient location between two States for example, a strict equidistance line can cause an inequitable solution should such small islands be given full effect in constructing boundary line. In order to address this issue, certain features such as islands may be given partial effect instead of full effect in maritime delimitation. Partial effect essentially means giving less than full effect to a feature belonging to one of the States in question so that the line constructed lies closer to one side than to the other. Partial effects are considered as modified equidistance lines.

Partial effect can theoretically be in any possible ratio as long as one side is given bigger or smaller weight than the other. However, in practice it has frequently been applied as a half effect for one side in the delimitation.[345] Partial effect can be applied, for example, to a small island or to other features or baselines in order to lessen the impact caused by the feature in the construction of boundary line. A good example of this is the half effect given to the Isles of Scilly in the Anglo-French Continental Shelf Arbitration.[346] It was also applied in the case of Malta and Libya where the final boundary line was achieved by shifting the strict equidistance for a distance of 18' of latitude northwards.[347] This was done by giving Maltese islands more than half effect or around ¾.[348]

2.6.3.2 Coastal Length Comparison

A difference in the relative length of the relevant coasts of the parties can also affect the boundary line between two or more States. Generally, the party with a longer relevant coastline will argue that it is entitled to a larger maritime area resulting from the delimitation process. This argument tends to be more compelling and persuasive where the disparity between the coastal lengths is substantial. Consequently, if there is a significant difference in coastal lengths between the two States in questions, there may

[345] TALOS, 2006, see above note 41, Chapter 6-8.
[346] J. Charney and L.M. Alexander, International maritime Boundaries, (Dordrecht, Martinus Nijhoff Publisher, Vol II, 1993) p. 1744.
[347] The Continental Shelf (Libyan Arab Jamahiriya/Malta), Judgement, I.C.J. Reports 1985, p.13, para 73.
[348] J. Charney and L.M. Alexander, 1993, *op cit*, p. 1649-1660.

be an argument to move the equidistance/median line towards the State with a shorter coast to achieve an equitable result.[349]

The challenge in implementing the aforementioned method is in defining or calculating the accurate length of coast in a manner that is comparable for both sides. For a smooth coast with regular shape it might not be a major issue, but such calculations can be problematic in the case of highly irregular coastline. The length of coast can be calculated by digitising the coastline and all closing line forming the relevant baselines and calculate the length using relevant computer system/software such as CARIS LOTS that was used in this research.[350] Alternatively it can be done using curvometer.[351] A curvometer is a device used to measure the length of a curve on a flat surface such as map. This device comprises of a wheel that is rolled tangentially along the curve. It records the length of the curve using a recording dial. They also contain circular or linear scales. When the coast in question is highly irregular, calculating the length of the coast can be more problematic. In particular, should every sinuosity of the coastline be measured, especially those portions of a coast that tend to face away from the area to be delimited. Further, the length of a particular portion of coast very much depends on the scale at which it is examined – the larger the scale of map or chart analysed, then the longer the line measured. Alternatively, the coast can be represented by segments of straight lines indicating the general direction of the coast and the length of relevant coast is represented by the length of the straight line segments. However, if this approach is taken, the question of how to determine the general direction of the coast becomes a potentially problematic issue (see below). If the length of relevant coasts can be determined or agreed upon, an equitable result can achieved by dividing relevant maritime area subject to delimitation in a similar ratio as the coastal length between the States, provided that States in question manage to agree on the relevant area or delimitation. It is not uncommon, however, that States parties to the delimitation cannot achieve an agreement on the relevant area.[352] It is also the case that when this sort of 'proportionality' argument has been advanced before international courts and tribunals, it has gained little traction with multiple judgments emphasising that there need not be a direct mathematical connection between the ratio of lengths of coasts and the

[349] TALOS, 2006, see above note 41, Chapter 6-9.
[350] See above note 339.
[351] TALOS, 2006, see above note 41, Chapter 6-9.
[352] TALOS, 2006, see above note 41, Chapter 6-9.

distribution of areas divided between the States concerned.[353] Instead, proportionality arguments have tended to be restricted to the role of a checking exercise, once the delimitation line has been drawn, in order to try and ensure against an inequitable result (see below).

2.6.3.3 The Equi-ratio Method

An equi-ratio line is a line, every point of which is defined by a constant ratio of its distances from the nearest points of the baselines of States in question.[354] An equi-ratio line is essentially an equidistance line when the ratio of its distance is 1:1 which has been previously discussed. Any ratio can be agreed upon by States in question to achieve an equitable solution. In the case of an island State delimiting maritime boundary with a continental State, a set of different ratios will provide a set of ellipses with the island State being located at one focal point of the ellipses.[355] In the delimitation between Colombia and Nicaragua, this method was applied by giving a ratio of 3 to 1 to Columbia's islands versus Nicaragua.[356]

2.6.3.4 Method related to "General Direction" of the Coastline

The most common way in which the general direction of the coastline can influence or determine the course of a maritime boundary line is through delimitation of boundary along a line perpendicular to the general direction of the coastline. This method is essentially a highly simplified equidistance line for the case of adjacent States where coastlines of States in question are considerably irregular so they need to be represented or approximated by lines depicting their general direction. This method was used, for example, by the Court of Arbitration to draw the maritime boundary line between Norway and Sweden[357] and by the ICJ in its delimitation between Guinea and Guinea Bissau.[358] In state practice, this approach was used in several agreements such as

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[353] See also, TALOS, 2006, see above note 41, Chapter 6-12.
[354] W. Langeraar, "Maritime delimitation: the equiratio method – a new approach". Marine Policy, January 1986. P.7.
[355] For a technical explanation of this method, see for example W. Langeraar, 1986. See above note 354. The author also showed how the equiratio method was tested on the already decided case such as the 1969 North Sea Continental Shelf Cases. A more recent analysis on this equiratio method was done by the Head of Geodesy and Tides of Hydrographic Service of the Royal Netherlands in his paper: Leendert Dorst, 2010. "An Algorithmic Solution to the Randomness of Equitable Boundary Lines", ABLOS Conference 2010, Monaco October 2010.
[356] Nicaragua v. Columbia, see above note 60.
[357] Grisbadarna case, see above note 276.
[358] Delimitation of the maritime boundary between Guinea and Guinea-Bissau, International Law Reports, Vol. 77.

Argentine/Uruguay, Brazil/Uruguay, and Estonia/Latvia.[359] A variation of this method is the angle-bisector method whereby the general direction of the coasts of each of the parties is defined and then the boundary line is delimited along the azimuth of the bisecting angle between the two straight lines representing the coasts concerned. This approach was applied in the Nicaragua-Honduras Case in 2007.[360]

As previously discussed, one of the challenges of this method is in defining the general direction of the coast (see subsection 2.6.3.2). Technically speaking, there will also be issues to address such as the type of lines used (geodesic or loxodrome), variations of accuracy and precision of such lines at different latitudes, and number of segments of line used in representing the general direction of the coast.[361] The use of map projections and the scale of map will also affect the selection of lines representing the general direction of the coast. These are, therefore, relevant technical issues to be taken into account seriously when this method is to be implemented.

2.6.4 Other Methods

2.6.4.1 The Thalweg Concept

A thalweg line is an example of a 'natural boundary'. The TALOS Manual defines a thalweg as "the line of maximum depth along a river channel or lake but may be considered in any coastal channel".[362] Essentially the thalweg is the deepest and therefore often the most navigable part a water channel. Using this part of a river as the basis for delimiting a boundary line tends to ensure fairness to the parties in question since they all have access to the navigable. The concept of 'thalweg', which has long been applied to land boundaries, particularly river boundaries, has, on rare occasions, been transplanted to the offshore arena and applied to submarine trenches and channels.[363] Furthermore, it has been evident that geomorphology of the seabed and its geological make-up have been considered as relevant factor in certain maritime divisions.[364] This concept was successfully applied in the cases of the North Sea Continental Shelf, where natural prolongation played an important role.[365] It is worth

[359] Antunes, N. 2003, see above note 79, p. 162.
[360] Nicaragua v. Honduras, 2007, see above note 393, para. 287.
[361] TALOS, 2006, see above note 41, Chapter 6 10-11.
[362] TALOS, 2006, see above note 41, Chapter 6-11.
[363] Prescott, JRV. and Schofield, C. 2005, see above note 252, p. 233
[364] See above note 363.
[365] See above note 277.

noting, however, that the consideration of geomorphology and natural prolongation in maritime boundary delimitation does not precisely confirm the use of thalweg as a boundary line.

The use of thalweg method in the deeper waters seaward of rivers or estuaries is uncertain because such natural features generally does not produce precise boundary line but rather zones of transition.[366] Similarly, the ICJ Chamber also rejected the use of a natural boundary, based on environmental factors proposed by the United States regarding the water column delimitation in the Gulf of Maine case.[367] The reason given was because the Chamber was not "convinced of the possibility of discerning any genuine, sure and stable 'natural boundaries' in so fluctuating an environment as the waters of the ocean, their flora and fauna."[368] Even though debate and discussion on the potential use of thalweg in maritime boundary delimitation has been taking place for reasonably long time, there has been only limited case law or State practice that implements this method in the delimitation of maritime boundaries.

2.6.4.2 Prolongation of Land Boundary

A maritime boundary line can be defined as a continuation of the land boundary line. The terminal point of land boundary serves as the starting point of maritime boundaries so that the whole boundary line system (land and maritime) form a continuous line enclosing the entirety of land and maritime territory and jurisdiction of a coastal State. Since the maritime boundary line is, in principle, a continuation of land boundary, it can theoretically be a prolongation of land boundary line with the same direction. Indonesia, in relation to maritime boundary delimitation in the Sulawesi Sea, once proposed that the maritime boundary line should be the prolongation of land boundary line that terminates at a point on Sebatik Island easterly seaward. Since the land boundary line crosses Sebatik Island at the latitude of 4° 10' N, Indonesia proposed that maritime boundary line starts at the terminal point on Sebatik Island and run along the latitude of 4° 10' N easterly, which was, according to Indonesia, in accordance with the 1891

[366] Evans, Malcolm D. (1988). Relevant Circumstances and Maritime Delimitation, Clarendon Press – Oxford, p. 118

[367] Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada v. United States), [1984] I.C.J. Reports 246.

[368] Schneider, J. (1985). The First ICJ Chamber Experiment: The Gulf of Maine Case: The Nature of an Equitable Result. The American journal of International Law, Vol. 79, pp. 539-377, p. 567.

Convention between Great Britain and the Netherlands.[369] However, this was only a proposal and not an agreed maritime boundary so it cannot be considered as State practice or case law that supports the use of this method of prolongation of land boundary.

According to the TALOS Manual, the option of a continuation of the land boundary line is possible if two criteria are met. Firstly, the land boundary line pursues a straight line and is effectively perpendicular to the general direction of the coastline where it terminates.[370] Secondly, there are no significant geographical features (islands, rocks, LTE) in the vicinity of the coastal area or neither off shore that if used as basepoints would substantially alter the direction of the proposed maritime boundary line.[371] In reality, it will be difficult or almost impossible to find such situation so the prolongation of land boundary line might not find its usage in a real case. In addition, it is unlikely that such a prolongation will be satisfactory as a complete maritime boundary.[372] Nonetheless, under certain circumstances, this option might be applicable to part of a maritime boundary line reached through mutual agreement and does have in its favour the virtue of being a simple straight line which would be relatively easy to administer.

2.6.4.3 Arbitrary Lines

Literary the word arbitrary means random or subjective. This indicates that the maritime boundary can be defined by a subjective line without any obvious rationale. This choice of arbitrary line, according to the TALOS manual, is generally based on several reasons such as historical or political. Consequently, agreed maritime boundaries may be composed of simple geodesics or loxodromes such as a parallel of latitude, a meridian, and parallel lines forming a corridor.[373] Even though this kind of method may result in maritime boundary that looks too good to be true or the shape of which is too regular, the result may have been supported by "a sound rationale."[374]

[369] For a complete documentation of Indonesia's position, see Sipadan and Ligitan Case, see above note 70, para. 34-39.
[370] TALOS, 2006, see above note 41. Chapter 6-11.
[371] See the rules of islands/rocks/LTE in maritime boundary delimitation on subsection 2.5.3.
[372] TALOS, 2006, see above note 41. Chapter 6-11.
[373] TALOS, 2006, see above note 41, Chapter 6-12.
[374] TALOS, 2006, see above note 41, Chapter 6-12.

Maritime delimitation in the case of St. Pierre et Miquelon between Canada and France[375] can be considered as an arbitrary line. In this case, special Court of Arbitration, drew two parallel straight lines forming a 10.5 nautical miles corridors, from the 12 nautical miles territorial sea southward up to the 200 nautical mile limit.[376] This interestingly-shaped boundary line is not without rationale. Coastal geography, especially the frontal projection of the coastline was the main feature that the Court considered, as well as proportionality considerations.[377]

2.6.4.4 Enclaving

Enclaving is often required in instance where there are coastal features belonging to a coastal State located in an inconvenient location where they might exert an inequitable influence on an equidistance-based line were they to be awarded full effect. The features can be located far away from the State's mainland such that the feature concerned, such as an island, is closer to the mainland of another State. Another example is that a small island located almost precisely in the middle of the area to be delimited between the mainland of two neighbouring States. There are examples where such features have not been awarded a full maritime entitlement or not given full effect in maritime boundary delimitation so that they have been wholly or partially enclaved. Figure 2.13 illustrates two enclaved islands in a maritime boundary delimitation scenario between States with opposite mainland coasts.

[375] Court of Arbitration for the Delimitation of Maritime Areas between Canada and France, Case Concerning the Delimitation of Maritime Areas between Canada and the French Republic, 1992. For a complete documentation, see: J.I Charney and L.M. Alexander (eds), International maritime Boundaries, (Volume 1, Netherland, Martinus Nijhof, 1993), pp. 399-401.
[376] J.I. Charney and Alexander, see above note 375, p. 399
[377] See above note 375.

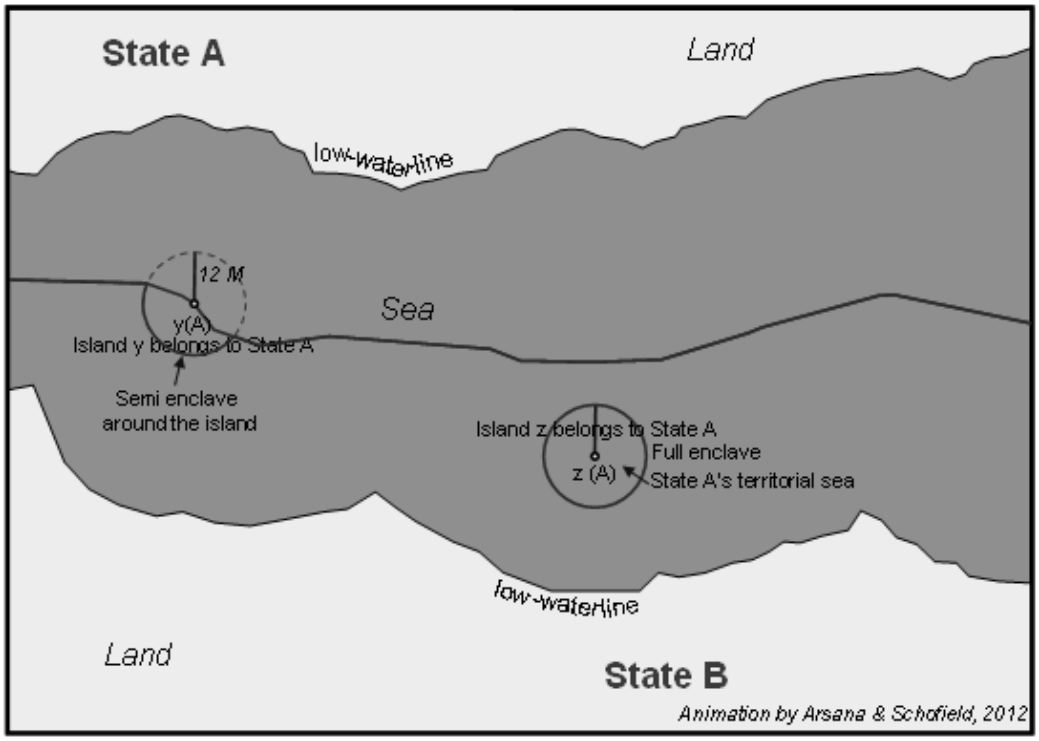

Figure 2.13 Equidistance Line between States A and B, Showing Semi and Full Enclave Effects for Islands Belonging to State A[378]

In the UK-France Arbitral Tribunal award of 30 June 1977, for example, the Channel Islands were enclaved on the French side of the continental shelf boundary line constructed between their opposite mainland coasts.[379] Another example is the Christmas Island of Australia which is located much closer to Indonesia's Java Island as compared to its distance from Australia's mainland.[380] As result of maritime boundary delimitation process, Christmas Island is fully-enclaved so it possesses its own maritime zone of jurisdiction which is separated from Australia's maritime zones.[381] In the same case between Indonesia and Australia, there is also a small group of islands/reefs collectively called Ashmore Reef which is located very closed to the median line between the mainland of Indonesia and Australia in the Timor Sea.[382] As a result, Ashmore Reef is partially-enclaved, causing the modification on the median line that finally formed the EEZ boundary line agreed upon in 1997. The existence of Ashmore

[378] The illustration was prepared by the author as part of his contribution to the update of TALOS Manual 5th edition.
[379] Report No. 9-3 in Volume II of *International Maritime Boundaries* – Ed. Jonathan I. Charney and Lewis M. Alexander.
[380] See above note 324.
[381] See: Prescott, JRV. (1997) The completion of marine boundary delimitation between Australia and Indonesia, Geopolitics, Vol. 2 No. 2, pp. 134.
[382] See for example: Prescott, JRV., 2002, Australia-Indonesia, Report Number 6-2(6) in Charney J.I. and Smith R. W. (eds) *International Maritime Boundaries*, pp. 2714-2727, Martinus Nijhoff Publishers, the Netherlands.

Reef causes the line to form a pocket or pouch belonging to Australia located in the Indonesian side of the median line. This is referred to as semi-enclave. Indonesia-Australia maritime boundaries involving semi-enclaving solutions for Christmas Island and Ashmore Reef are illustrated in Figure 2.14.

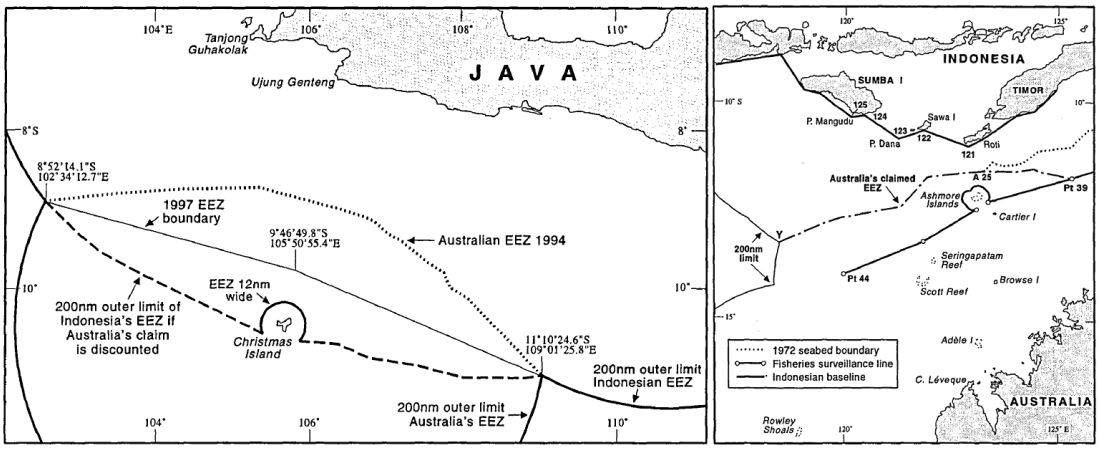

Figure 2.14 Full Enclave (Christmas Island) and Semi Enclave (Ashmore reef) in Indonesia-Australia Maritime Boundaries[383]

2.6.5 The Three-Stage Approach

The latest significant development with regards to maritime boundary delimitation is the application of what has been termed the 'three-stage approach'. Previously, a two-stage approach has been used as one of the method to achieve equitable solution which involves the generation of strict equidistance line as the first step followed by modification of the line, should it be necessary, by considering relevant circumstances, to achieve an equitable solution. The two-stage approach was used in several cases, for example, the Denmark-Norway case concerning delimitation between Greenland and Jan Mayen Island in 1993[384] in maritime delimitation between Qatar and Bahrain in 2001,[385] and in Guyana/Suriname Arbitration.[386] In the *Jan Mayen Case*, for example, the Court concluded that "the median line adopted provisionally for both, as first stage in the delimitation, should be adjusted" in such a way to achieve an equitable solution

[383] Prescott, JRV. 1997, see above note 381, pp. 134, 136.
[384] Case Concerning Maritime Delimitation in the Area between Greenland and Jan Mayen (Denmark v. Norway), [1993] ICJ Reports, 38 (hereinafter *Jan Mayen Case*), at para. 51, available at <http://www.icj-cij.org/docket/files/78/6743.pdf>.
[385] Case Concerning Maritime Delimitation and Territorial Questions Between Qatar and Bahrain, (hereinafter *Qatar/Bahrain Case*), para. 230, available at http://www.icj-cij.org/docket/files/87/11055.pdf.
[386] Arbitral Tribunal Constituted Pursuant to Article 287, and in accordance with Annex VII, of the United Nations Convention on the Law of the Sea in the Matter of an Arbitration between Guyana and Suriname, Award of the Tribunal of the Permanent Court of Arbitration (17 September, 2007), available at http://www.pca-cpa.org/showfile.asp?fil_id=664.

for Denmark and Norway.[387] This is done by considering equitable access to fishery resources in the area subject to delimitation.[388]

The three-stage approach was first introduced by the International Court of Justice in ruling the *Black Sea Case* between Ukraine and Romania in 2009.[389] Similar to the previous one, two-stage approach, this starts with drawing an equidistance line as a provisional line in the first step, followed, at the second stage, by consideration of any relevant or special circumstances which might potentially lead to a modification or adjustment of the provisional line. The additional third step involves the application of a disproportionality test to ensure that the modified line does not cause inequitability.

In the Black Sea Case, the Court stated that "[i]n keeping with its settled jurisprudence on maritime delimitation",[390] a provisional delimitation line should be established using geometrically objective methods.[391] It is worth noting that the preference of drawing an equidistance line was explicitly stated by the Court, giving an emphasis to the strength of the method. Indeed, the Court stated explicitly that in drawing a provisional delimitation line "an equidistance line will be drawn *unless there are compelling reasons that make this unfeasible* in the particular case" [emphasis added].[392] This can be regarded as a significant development regarding the preference for using an equidistance line as the starting line in maritime delimitation, since the Court provides a clearer and more specific statement compared to that in previous decisions for similar cases. In its judgment in the Nicaragua/Honduras Case of 2007 for example, the Court only acknowledged that equidistance method can be applied for its scientific and the relatively-easy-to-use character.[393]

It is worth noting, however, that even though the Court explicitly stated its preference to equidistance line in drawing provisional line it also made clear that the method "does not automatically have priority over other methods of delimitation".[394] The Court further acknowledged possible factors that may "make the application of the

[387] Jan Mayen Case, see above note 384, para. 87.
[388] Jan Mayen Case, see above note 384, para. 90.
[389] Black Sea Case, see above note 58.
[390] Black Sea Case, see above note 58, para.118.
[391] Black Sea Case, see above note 58, para.116.
[392] Black Sea Case, see above note 58, para.116.
[393] Case Concerning Territorial and Maritime Dispute between Nicaragua and Honduras in the Caribbean Sea (Nicaragua v. Honduras), 8 October 2007, para. 272, available at http://www.icj-cij.org/docket/files/120/14075.pdf.
[394] Nicaragua v. Honduras, 2007, see above note 393, para. 272.

equidistance method inappropriate."[395] This strongly suggests that the use of equidistance line as a provisional line has to be put in context. There are situations where equidistance line can be a good starting point but in other situation the same approach might not lead to an equitable solution.

It is notable, however, that the Court did not define a strict equidistance line as the provisional delimitation line but was instead selective over which basepoints to use. In particular the ICJ opted to ignore Serpents' Island as a basepoint in the construction of the provisional equidistance line. Giving "specific" attention to Serpents' Island in the determination of the provisional equidistance line the Court stated:

> In connection with the selection of base points, the Court observes that there have been instances when coastal islands have been considered part of a State's coast, in particular when a coast is made up of a cluster or fringe of islands…However, Serpents' Island lying alone some 20 nautical miles away from the mainland, is not one of a cluster or fringe of islands constituting the "coast" of Ukraine.
>
> To count Serpents' Island as a relevant part of the coast would amount to grafting an extraneous element onto Ukraine's coast; the consequence would be *judicial refashioning of geography*, which neither the law nor practice of maritime delimitation authorizes [emphasis added].[396]

The Court emphasised the point by remarking that:

> Serpents' Island cannot serve as a base point for the construction of the provisional equidistance line…since it does not form part of the general configuration of the coast.[397]

The second stage after drawing a provisional line was to see whether or not the provisional line needs modification of shift for relevant or special circumstances. In the Black Sea Case, Ukraine argued that coast length proportionality need to be taken into account in shifting the provisional line. Viewing the fact that the relevant coast of Ukraine is longer than that of Romania, Ukraine was of the view that the provisional line should be shifted towards Romanian coast.[398] Romania, on the other hand, did not see that such "disparities between the parties' coasts to feature as a relevant circumstance."[399] After considering both views from Ukraine and Rumania and

[395] See above note 393, para. 272.
[396] Black Sea Case, see above note 58, para. 149.
[397] *Id*. at 186.
[398] See above note 393, para. 158.
[399] See above note 393, para. 159.

reviewing the relevant jurisprudence, the Court concluded, that coastal length disparity between Ukraine and Romania was not a relevant factor to shift the provisional line.[400]

The third stage outlined by the Court in the Black Sea Case is the "disproportionality test" to ensure that the delimitation line "does not lead to any significant disproportionality by reference to the respective coastal lengths and the apportionment of areas that ensue."[401] It is interesting to observe the Court's consideration that it is disproportion rather than proportion which is the criterion to consider. Quoting the Anglo-French Continental Shelf Case, the Court further states that "there can never be a question of completely refashioning nature . . . it is rather a question of remedying the disproportionality and inequitable effects produced by particular geographical configurations or features." [402] In the Black Sea Case, the Court compared the ratio of relevant coastal length and the ratio of maritime area assigned to Rumania and Ukraine. It was found that that the ratio of relevant coastal lengths for Romania and Ukraine was approximately 1:2.8 and the ratio of relevant maritime areas of the order of 1:2.1.[403] The Court further concluded that the relatively small difference did not demonstrate disproportionality so no further adjustment was required to the delimitation line in the third stage.[404]

For its clear and systematic approach in maritime delimitation in the Black Sea Case, the Court demonstrated its "clearest expression yet of its approach to the delimitation of maritime boundaries."[405] It also provided a stronger confirmation regarding the use of equidistance line in drawing provisional line, compared to the two-stage approach. It is also noteworthy that this approach was also subsequently adopted by the International Tribunal for the Law of the Sea (ITLOS) in its ruling on the delimitation of an EEZ and continental shelf boundary between Bangladesh and Myanmar in the Bay of Bengal on 14 March 2012 and by the ICJ once again in the *Territorial and Maritime Dispute Case* between Colombia and Nicaragua, where the ruling was handed down in November 2012.[406] The tribunal drew a provisional equidistance line by selecting relevant

[400] See above note 393, para. 168.
[401] See above note 393, para. 210.
[402] See above note 393, para. 210.
[403] Black Sea Case, see above note 316, para. 212.
[404] See above note 393, para. 216.
[405] Clive Schofield, 2012, Parting the Waves: Claims to Maritime Jurisdiction and the Division of Ocean Space, Penn State Journal of Law & International Affairs, Volume 1, Issue 1, p. 53.
[406] Bay of Bengal Case, see above note 59.

basepoints on the side of Bangladesh and Myanmar. As a result, the line drawn was similar to the one previously proposed by Myanmar.[407]

In the Bay of Bengal Case, the next stage, in keeping with the three-stage process, was to take into account the relevant circumstances that possibly adjust the provisional line to achieve an equitable solution. The Tribunal took into account the coastal geography that the delimitation was taking place in a concave coast so that the equidistance line drawn previously had a cutting off effect.[408] The Tribunal adjusted the provisional line in such a way so it does not have a cutting-off effect to both Myanmar and Bangladesh. The Tribunal finally assessed whether or not the provisional line created disproportionality between the respective maritime areas (EEZ and/or continental shelf) and the lengths of the respective coastal fronts. The tribunal found that there was difference since the ratio of maritime areas is 1 (Bangladesh) to 1.54 (Myanmar),[409] and the ratio of the lengths of the relevant coasts is 1 (Bangladesh) to 1.42 (Myanmar).[410] However, the Tribunal held that there was no significant disproportion so no adjustment was required to the provisional line.[411] This is also the case in maritime delimitation between Nicaragua and Colombia (see subsection 2.5.3). The Court found that the ration of relevant area between the Columbia and Nicaragua is 1 to 3.44, while the ratio of relevant coasts is 1 to 8.2.[412] However, the court concluded that this difference does not entail such a disproportionality as to create an inequitable result.[413]

2.7 Geospatial/Technical Aspects of Maritime Delimitation

The provisions dealing with maritime boundary delimitation in LOSC necessarily involve significant geospatial or technical aspects as well as international legal issues. Boundaries concern the definition of points and lines on earth so that geospatial aspects and positioning are essential. Indeed, the relevant provisions of LOSC repeatedly make use of terms that are inherently technical in character, requiring geospatial expertise and input from disciplines such as geodesy and hydrography, as well as international legal knowledge to fully understand and apply. Key terms of this nature include “charts”,[414]

[407] Bay of Bengal Case, see above note 59, para. 271-274.
[408] Bay of Bengal Case, see above note 59, para. 297.
[409] Bay of Bengal Case, see above note 59, para. 499.
[410] Bay of Bengal Case, see above note 59, para. 205.
[411] Bay of Bengal Case, see above note 59, para. 499.
[412] Nicaragua v. Columbia, see above note 60, para 243.
[413] Nicaragua v. Columbia, see above note 60, para 247.
[414] Mentioned on 20 occasions in 12 articles of LOSC.

"distance",[415] "nautical mile",[416] "coordinate",[417] "low tide elevation",[418] low water line",[419] "low water mark",[420] "metre",[421] "ratio of the area of the water to the area of the land",[422] and "median line"[423] among others. Additionally, where Article 76 is under consideration, terms that are geological,[424] geodetic[425] or morphological[426] in character are highly prominent. This is one of the reasons underlying the drafting of the manual on the Technical Aspects of LOSC which is known as TALOS Manual. This subsection discusses several geospatial/technical aspects of the law of the sea relevant, especially, to maritime boundary delimitation.

2.7.1 Charts

Nautical charts are required to depict baselines as governed by LOSC where normal baseline is "the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State."[427] Charts depict portions of the surface of the earth and are used to make calculations and measurements are done for the purpose of defining the limits of maritime claims and also for the delimitation of maritime boundaries. Unlike land boundaries that require demarcation in the field by erecting pillars, monuments or even walls, maritime boundaries are generally not physically marked, even though on rare occasions buoys are used. No demarcation is required in the case of maritime boundaries. Instead, maritime boundary lines are often drawn on nautical charts so the importance of charts to the delimitation of maritime boundaries should not be underestimated.

Two particular characters of a chart to be taken into account in maritime boundary issues are the projection system used and the scale. Put simply, map projection is a

[415] Mentioned on 14 occasions in 10 articles of LOSC.
[416] Mentioned on 11 occasions in 11 articles of LOSC.
[417] Mentioned on 6 occasions in 3 articles of LOSC.
[418] Mentioned on 6 occasions in 2 articles of LOSC.
[419] Mentioned on 5 occasions in 4 articles of LOSC.
[420] Mentioned on 5 occasions in 1 article of LOSC.
[421] Mentioned on 4 occasions in 3 articles of LOSC.
[422] Mentioned on 2 occasions in 1 articles of LOSC.
[423] Mentioned on 1 occasions in 1 articles of LOSC.
[424] For example, "natural prolongation", "subsoil", "landmass", "sedimentary rocks" and "natural components of the continental margin". See, LOSC, Article 76(1), (4) and (6).
[425] For example, "distance", "nautical miles", "coordinates of latitude and longitude" and "geodetic data". See, LOSC, Article 76(1) and (4-9).
[426] For example, "continental shelf", "seabed", "continental margin", "oceanic ridges", "deep ocean floor", "slope", "maximum change in the gradient", "submarine ridges", "plateaux", "caps", "rises", "banks" and "spurs". See, LOSC, Article 76(1) and (3-6).
[427] LOSC, Article 5.

procedure determining how to depict objects on earth, which in reality is naturally curved, on a flat surface in such a way to minimise distortion effect caused by the 'flattening' process.[428] The choice of the appropriate map projection is important since it has direct impact to the level of distortion and related errors that a particular chart may include. Nautical charts that are widely used in terms of maritime boundaries usually use Mercator projection. This projection depicts meridians and parallels as straight lines that intersect at right angles. The interval between meridians is constant, and the distance between parallels increases in proportion to latitude. This configuration has a major advantage in that coordinates can be readily plotted on to the chart. These characteristics are important for nautical charts as they are used mainly for navigation and their primary purpose is as an aid to safety of navigation.

With regards to chart scale, LOSC does not provide any specific requirements. It only states, in terms of normal baselines for example, that a "large-scale chart recognised by coastal State" is required.[429] However, it is understood that scale has a direct bearing to the accuracy of position defined by such charts which eventually can affect the accuracy of the distances and areas calculated from the chart. The TALOS Manual suggests options in terms of scales that can be used in maritime delimitation such that the accuracy is sufficient for legal purposes. For EEZ and continental shelf delimitation, for example, the range of suitable scales of charts will normally be from 1:100,000 to 1:1,000,000, while for territorial sea boundary delimitation it is suggested that the scales should be in the 1:50,000 to 1:100,000 range.[430] This suggests that territorial sea boundary delimitation requires a more detailed chart since it deals with a smaller area and a maritime zone within which States hold sovereignty instead of sovereign rights as is the case for the continental shelf and EEZ further offshore.

While each State usually recognises specific charts, it is important for two or more States to agree upon the use of commonly-recognised chart in maritime boundary delimitation. Each State can propose its own chart for this purpose but it is not uncommon that both will agree to use charts published by a third party/State. For Indonesia, for example, British Admiralty Charts, is one of the options commonly used for maritime boundary delimitation with its neighbours. The reason behind the use of a

[428] See for example: John P. Snyder, 1997, Flattening the Earth: Two Thousand Years of Map Projections. University of Chicago Press
[429] LOSC, Article 5.
[430] TALOS, 2006, see above note 41, Chapter 3-17.

commonly accepted chart is to ensure certainty and uniformity in terms of scale, map projection, and horizontal and vertical datum, which are considered as important properties in using charts.[431] With regard to keeping charts current, LOSC does not specify how frequent a chart should be updated. It implies that States can use any chart, for baselines definition for example, as long as it is recognised. It is also applied to charts for maritime delimitation, as long as parties in question agree to do so. It means, a recognised chart may not depict the most recent situation in the fields but it is accepted as a legal document used in defining maritime zone of jurisdiction and delimitation.[432]

2.7.2 Horizontal and Vertical Datum

Horizontal and vertical datums are two important properties that relate directly to the horizontal and vertical positions of points/objects depicted on a chart. The horizontal datum, which is also known as geodetic datum, is a mathematical model of the Earth for coordinate computation. It defines the size and shape of the earth and the origin and orientation of the coordinate systems used to map the earth.[433] Coordinates can be geodetic coordinates which consist of the horizontal coordinates, latitude (φ) and longitude (λ), and geodetic height (h), or Cartesian coordinates X, Y, Z, referred to the minor and two major (equatorial) axes of the ellipsoid.[434] In maritime boundary agreement geodetic horizontal coordinates are usually used, expressed in latitude and longitude. A pair of coordinates (latitude and longitude) will mean nothing without geodetic datum specification.[435] On the other hand, one single point on earth can be expressed in different coordinates with different geodetic datum and the same coordinates may refer to two different points on Earth if the two coordinate use different geodetic datums.[436] Among many datums World Geodetic System 1984 (WGS84) is the most widely accepted one and which is used in the Global Positioning System (GPS), a satellite-based positioning and navigation system.[437]

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[431] TALOS, 2006, see above note 41, Chapter 3-3.
[432] Schofield, C. and Arsana, IMA. (2012), see above note 161.
[433] Peter H. Dana, Geodetic Datum Overview, (Department of Geography, University of Texas at Austin, 1995) available at: <http://www.colorado.edu/geography/gcraft/notes/datum/datum.html>.
[434] TALOS, 2006, see above note 41, Chapter 2-8.
[435] Prescott, JRV. and Schofield, C. 2005, see above note 252, p. 291.
[436] Abidin, H. Z. et al. 2005, see above note 72, p.293.
[437] Carleton, C. and Schofield, C. H. 2001, see above note 76, p.6.

With regard to maritime boundary delimitation, definition of a particular geodetic datum is certainly essential. It is worth noting that lack of agreement on a common geodetic datum between States involved in a boundary delimitation exercise may cause subsequent disputes in maritime boundary delimitation negotiations or, indeed, following on from an apparent agreement.[438] In the case of Indonesian maritime boundaries, for example, geodetic datum is not explicitly mentioned in most of agreements Indonesia signed with its neighbours.[439] Uncertainty regarding the geodetic datum applicable to the maritime boundary agreed with Singapore signed in 1973 became a problematic technical issue between the two sides (see Chapter 4, section 4.5 and Chapter 5, subsection 5.2.2 and section 5.3).[440] The agreement between the two States does not specify geodetic datum used. Consequently, the coordinates listed in the agreement do not have geospatial meaning or, in other words, their actual position on earth cannot be identified with precision. To overcome this issue, Indonesia and Singapore needed to enter a new agreement detailing practical aspects of the current agreement.[441] In the 2009 agreement between Indonesia and Singapore, the use specific geodetic datum, which is WGS 1984, is explicitly mentioned in Article 1(2) of the agreement. The agreement also notes that the 2009 boundary line "shall continue the boundary line under the 1973 treaty", which implies the need to transform the 1973 coordinates into WGS 84.[442] Interestingly, it is not only the case of Indonesia-Singapore boundaries but also other boundaries defined prior to 2003.[443]

In addition to the horizontal datum, the vertical datum is equally important in the context of maritime boundary delimitation. Vertical datum is the level against which all water depths are expressed, which in this case is the level of the low-water lines shown on a chart.[444] As mentioned earlier (see, subsection 2.3.1), there are many different options for different low-water lines to be defined according to the vertical datum (or chart datum) used in the construction of a particular nautical chart. The lower the

[438] Beazley, P., 1993. Technical Consideration in Maritime Boundary Delimitations, Charney, J.I. and Alexander, L.M. (eds) *International Maritime Boundaries*, Vol. I, Martinus Nijhoff, Dordrecht, pp. 243-262, p.247.
[439] Abidin, H. Z. et al. 2005, see above note 72, p. 294.
[440] Abidin, H. Z. et al. 2005, see above note 72, p. 296.
[441] Rimayanti, A. and Lokita, S., 2010. The Geodetic Datum Problems of the Territorial Sea Boundary Between the Republic of Indonesia and the Republic of Singapore, International Federation of Surveyor (FIG) Congress 2010, Facing the Challenges – Building the Capacity, Sydney, Australia (11-16 April 2010).
[442] *Ibid.*
[443] Abidin, H. Z. et al. 2005, see above note 72.
[444] Beazley, P., 1993, *op cit*, p. 244.

vertical datum then the lower the low-water line the further offshore the low water line baseline will be defined.

A difference in the vertical datum used by two States in their charting can also affect the status of insular features, because a different datum may determine whether a shallow feature (such as a sand bank) is to be considered a low-tide elevation or a submerged feature. In the case of Belgium-France[445] for example, each State constructed equidistance line, which were different from one another because of the use of different vertical datum.[446] To deal with this issue, a final line was generated by dividing area between the two equidistance lines.[447] Simply put, the choice of vertical and agreement on it is crucial in maritime boundary delimitation. Issues concerning differences in horizontal and vertical datum can be overcome by the use of commonly accepted chart in maritime boundary delimitation.

2.7.3 Straight Lines

In a maritime boundary treaty, it is usually stated that turning points are connected by straight lines. In a spherical representation of the Earth, a straight line can be rendered in different ways when it is projected in a flat (two dimensional) surface of map. Among available methods, geodesic lines are considered as the most accurate straight line to connect two basepoints or turning points of boundary lines, so it is the most preferable one.[448] Geodesic lines, in fact, are not straight lines but a line as part of a great circle. A great circle is a circle or ellipse the centre of which coincides with the centre of a sphere. In the context of the Earth, a great circle is a circle formed by the intersection of the plane surface intersecting a sphere representing the earth at its centre. Figure 2.15 illustrate a geodesic line connecting point P and Q on the surface of the earth. It is considerably clear that a geodesic line is in fact a curved line on the surface of ellipsoid/sphere as a part of great circle.

[445] Agreement Between the Kingdom of Belgium and the French Republic Concerning the Delimitation of the Territorial Sea, 8 October 1990 (hereafter Belgium-France Territorial Sea Agreement).
[446] Beazley, P., 1993, *op cit*, p. 247.
[447] Belgium-France Territorial Sea Agreement, Art. 2.
[448] S.P. Jagota, 1985, see above note 269, p. 62.

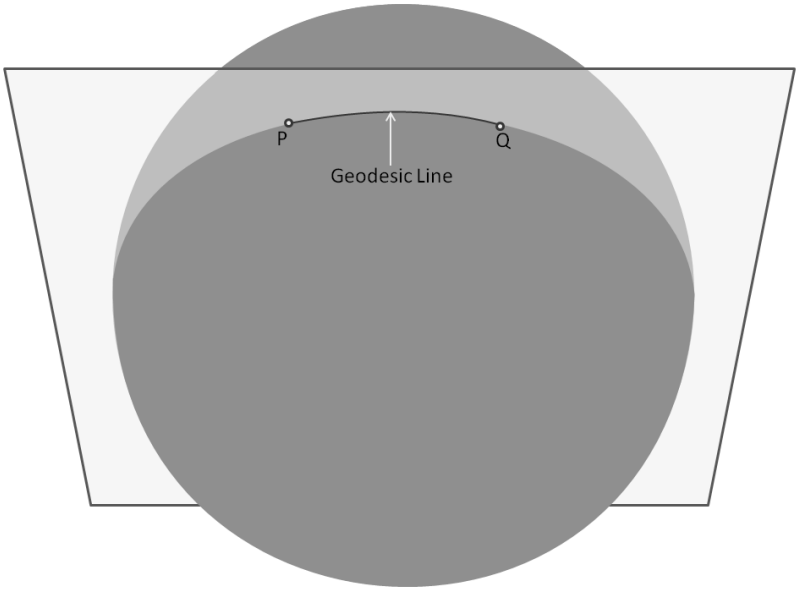

Figure 2.15 Geodesic Line Representing a Straight Line in the Context of Maritime Boundary[449]

As previously mentioned, straight lines can be represented by several types of lines so, it is vital to specify the precise type of the line used in maritime limits and boundaries or in defining baselines. In addition, it is worth noting that the depiction of a straight line also depends on type of chart projection used. A straight line depicted on a Mercator projection, for example, is not necessarily a straight line in reality.[450] More importantly, the failure to specify type of lines and chart projection can lead to a subsequent dispute.[451]

A good example of this type of dispute is the case of Anglo-French Arbitration when the Court's intention was to draw a half-effect line in the western part if the relevant area of delimitation, the western entrance of the English Channel.[452] The Court however, did not provide specific information on the type of straight line used neither the chart projection. As a result, the expert of the Court drew a loxodrome line, a straight line depicted on a Mercator chart, which is not a straight line in reality. The United Kingdom, for its part, objected to the use of this type of straight line and argued that the line should be drawn on a Transverse Mercator projection instead of Mercator. Should the proposal be accepted, the terminal point of the line would have been pushed four nautical miles closer to the French side. The Court however, rejected the proposal

[449] Illustration by the author.
[450] TALOS, 2006, see above note 41, Chapter 3-33.
[451] Prescott, JRV. and Schofield, C. 2005, see above note 252, p. 300.
[452] The Anglo-French Continental Shelf Arbitration, above note 278

and argued that the use of loxodrome on Mercator projection in maritime delimitation is not an obsolete method. In addition, it is not inadmissible in law, nor incompatible with the wording of the decision since it does specify any type of line nor chart projection.[453]

Considering the potential for disputes to arise as a consequence of uncertainties over the type of straight line used in maritime boundary delimitation, it is important to explicitly specify this in a treaty. In the maritime boundary treaty signed by Indonesia and Vietnam in 2003 for example, it is clearly specified that the straight lines connecting turning points of the boundary are geodesic lines.[454] From a legal perspective, it does not matter what type of straight line is used in delimitation, as long as it is explicitly stated to avoid potential disputes subsequent to the delimitation agreement being made. However, from a practical perspective, the type of straight line used will affect the way it is depicted on a chart and will therefore affect the way the line is positioned in the field/reality for the purpose of boundary administration.

2.7.4 Geographic Information Systems

A geographic information System (GIS) can be defined as "an organized collection of computer hardware, software, geographic data, and personnel designed to efficiently capture, store, update, manipulate, analyse, and display all forms of geographically referenced information."[455] GIS enables the user to manage and manipulate geospatial data to generate derivative information to support a decision making. Simply put, GIS is a sophisticated map (geospatial data) combined with other relevant data (attribute data) managed with a computer by which one can obtain necessary geo-referenced information. When it was initially developed in the 1970s and 1980s, GIS was mainly used for the management of land-based geospatial data.[456] within recognition of the fact that GIS is effective in helping one to make informed decisions, many other fields started to use GIS for multiple purposes such as surveying, environment, tourism, urban planning, taxation, location-based services and in relation to health provision to name but a few.

[453] Further discussion on this case See: J. Charney and L.M. Alexander, see above note 346, pp. 1735-1745.
[454] See: Treaty between Indonesia and Vietnam, Article 1 (1, 2).
[455] see also http://www.esri.com/.
[456] Carleton C. and Schofield, C. 2002, see above note 76, p.39.

In the context of maritime boundaries, GIS can be usefully applied in at least two aspects: delimitation and administration or management. A prominent geodesist, Galo Carrera, may be considered as the first technical expert to bring awareness how GIS can be used to calculate geodetically robust maritime boundary delimitation lines. His work is in fact not the first one since the approach was developed for the first time in the 1970s. However, the development was not as rapid as it could have been and no significant advances were recorded until the mid-1980s, when software such as DELMAR was created. Delmar, standing for DELimitation of MARitime Boundaries,[457] was developed by Galo Carrera in association with Geometrix. The project was funded by the Canadian government. Features in DELMAR enable the computation of maritime areas, determination of maritime limits and construction of equidistant/median lines.[458] Unfortunately, DELMAR has not been developed further and it did not enter commercial market to be used by public**.**

Australia also developed its own GIS software to deal with maritime zone definition and maritime delimitation. The software is called MarZone, which was developed by experts at the Department of Geomatics,[459] University of Melbourne.[460] MarZone can be used in maritime boundary delimitation and is claimed to be able to satisfy requirements of and meet the technical specifications.[461] Features of MarZone include defining arcs on the surface of the reference ellipsoid provided that the centre is specified, calculating the intersection point between two arcs, offsetting lines from straight baselines defined as geodesics, intersecting geodesics with arcs and computing geodesic azimuths and distances over very long lines (up to 350 M). A particular emphasis in the design of MarZone is on the development of "an efficient and robust solution based on strict implementation of the relevant UNCLOS provisions and a rigorous geodetic methodology."[462] MarZone has been used by the Geoscience Australia to generate Australia's maritime limits measured from its territorial sea baselines. [463] The use of

[457] see also http://www.oneocean.org/download/20010629/delineation_guidelines.pdf
[458] Carleton C. and Schofield, C. 2002, see above note 76, p. 40.
[459] At the time of writing (May 2013), Department of Geomatics of the University of Melbourne merges into the Infrastructure Engineering .
[460] See: Computing Australia's Maritime Boundaries, Geosciences Australia. Available at <http://www.ga.gov.au/marine/jurisdiction/maritime-boundaries.html>
[461] Collier, P.A., et al, 2002. The Automated Delimitation of Maritime Boundaries : An Australian Perspective. International Hydrographic Review, Vol. 3, Iss. 1, pp. 68-80, p. 77.
[462] Collier, P.A., et al, 2002, see above note 461, 77-78.
[463] See above note 460

MarZone guarantees that the limits were rigorously calculated by considering geodetic aspects and not merely generated as a buffer.[464]

The present author was involved in a study of maritime boundary delimitation issues between Indonesia and Timor-Leste which also utilised GIS.[465] CARIS LOTS is the software used for the study by utilising geospatial data such as British Admiralty Chart (BAC) and other supporting legal data/information. The study resulted in option of boundary lines in three different locations: Timor Sea, Ombai Strait and Wetar Strait. It was found that GIS can effectively speed up the generation of median or equidistance line by considering relevant factors that affect the final line. Similarly, CARIS LOTS was also used throughout this thesis to geospatially analysed options of maritime boundary delimitation between Indonesia and its neighbours.

In addition to delimitation, GIS is also used in maritime boundary administration. GIS has been used for managing different kinds of data and information on maritime boundaries for better access. The Australian Maritime Spatial Information System (AMSIS) is a good example of how GIS can be used in maritime boundary administration/management.[466] AMSIS is an online interactive Australian maritime boundaries map accessible to public.[467] Through AMSIS, one can obtain information on maritime boundaries of Australia with its neighbouring States. By clicking on an object depicted on the map, one can obtain, for example, information on type of boundaries, States involved, legal treaty involved, and legal status (signed, in force, etc). AMSIS is developed to support:

> ...regional marine planning, management of marine operation including regulation and enforcement of legislation, and industry development especially in the identification of interests overlapping or adjacent to the annual offshore petroleum acreage release.[468]

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[464] Australian Maritime Boundaries (AMB) from http://www.ga.gov.au/bin/htsqr?file=/oracle/geomet/geomet2.htsqr&datasetno=7842

[465] See: Arsana, IMA. Rizos, C., & Schofield, C., (2006), The application of GIS in maritime boundary delimitation: A case study on the Indonesia-East Timor maritime boundary delimitation. In "Innovations in 3D Geoinformation Science", A. Abdul-Rahman, S., Zlatanova, & V. Coors (eds.), Lecture Notes in Geoinformation & Cartography series, Springer-Verlag, ISBN 3-540-36997-X, 698-719.

[466] See introductory information on AMSIS at http://www.ga.gov.au/marine/jurisdiction/amsis.html.

[467] See the official website of AMSIS at http://www.ga.gov.au/imf-amsis2/.

[468] AD Nairn. 2010 in D.R. Green (ed) Coastal and Marine Geospatial Technologies, Coastal Systems and Continental Margins 13, pp. 17.

2.7.5 Global Navigations Satellite Systems

Global Navigation Satellite Systems (GNSS) refers to navigation systems which utilise satellite-based positioning methods. Simply put, this system enables the definition of coordinate of a point by utilising satellites that orbit the earth in a certain constellation. It is safe to say that the first fully operational modern GNSS is Global NAVSTAR Positioning Systems (commonly known as GPS) of the United States.[469] GPS was initially built for military use but its use for public has been open since Ronald Reagan's administration and obtained greater support from Bill Clinton's administration.[470] Since it has been open for public, the application of GPS is virtually endless. While geodetic surveyors usually utilise GPS for precise coordinate positioning, others might see GPS as a mobile gadget for fun and leisure activities. The use of GPS for practical navigation in vehicles seems to be the most common nowadays for the laymen.

For the purpose of maritime boundary delimitation, the definition of basepoints coordinates along the coast has been using GPS with an appropriate level of accuracy. GPS is appropriate for positioning in relation to maritime boundaries since it uses a global datum of WGS84 with the WGS 84 ellipsoid which ensures the use of single positing system for two or more States involved.[471] GPS is used to define the location of maritime boundaries because they "exist as virtual objects without visible or tangible demarcation."[472] As noted above, accurate coordinates are the only identifier of maritime boundaries since they are not identifiable by physical pillars/monuments in the ocean, unlike land boundaries.

With regard to boundary management, the use of GPS in defining maritime boundaries will be compatible with vessels using GPS for navigating through such border areas. Nowadays, most vessels utilise GPS or other form of GNSS for navigation purposes, for example as part of their on board ECDIS (electronic chart display and information system), which utilises the same technology/principles as are used in defining maritime boundaries. Since positioning is made relatively easier by the use of GPS, position

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[469] See the official website of GPS for more information: http://www.gps.gov/

[470] Minutes of the Whitehouse, January 2001. Available at <http://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast_final_meetingminutes_january2013.pdf>.

[471] See: Abidin, H. Z. et al. 2005, see above note 72.

[472] Fraser, R., Collier, P., and Leahy, F., (2003). Positioning Maritime Boundaries with Certainty – A Rigorous Approach, Proceeding of the 2003 ABLOS Tutorials & Conference "Addressing Difficult Issues in UNCLOS" 28-30 October. International Hydrographic Bureau, Monaco, p. 1.

recognition can be enhanced and possibility of trespassing can also be minimised. Therefore, law enforcement will be reasonably easier where a maritime boundary violation is suspected.

Recent research regarding the use of GPS in the management of maritime boundaries concern on the use of GPS as a navigational tool to identify the location existing maritime boundaries.[473] GPS receivers can be modified in such a way to be able to inform users, such as fishermen, of the location of maritime boundaries so that a boundary crossing can be prevented. Such devices serve as a form of early warning system for the fishermen operating in maritime border areas when they approach the maritime boundary line with neighbouring States. Should such devices be used properly and wisely, inadvertent, unintentional illegal border crossings can be prevented. Notwithstanding the fact that this approach is technologically possible, cost-effectiveness might still be an issue, especially for traditional fishermen who generally posses very limited financial resources. In addition, information dissemination and proper training on the use of such technology seems to be the next important step for society conducting activities around border areas.

As previously mentioned, GPS is not the only GNSS system to be use in relation to maritime boundary delimitation and management. Other GNSS that are now in operation or being developed are Glonass of Russia,[474] Galileo of the European Union,[475] and Compass of China, which is developed from a regional system called Beidou.[476] Research and development has been conducted to investigate the application of other GNSS in coordinates positioning and such activities are ongoing. Integration on the use of multi-GNSS has also been carried out to obtain positions with better accuracy. Receivers that can receive signals from different GNSS satellites have also be deployed in the market so one observation will be able to take advantage from more available satellites for better accuracy in positioning. However, research and application of the aforementioned GNSS specifically assigned for maritime boundary delimitation have apparently yet to be developed.

[473] See for example: Ankur Shukla, Laxmikant Tiwari, Prof. Garima Arora (2013) "Design of GPS Navigator that Identifies Maritime Boundary", International Journal of Engineering Technology & Management Research, Vol 1, Issue 1, February 2013.
[474] See the official website of Glonass at http://glonass-iac.ru/.
[475] See the official website of Galileo http://www.gsa.europa.eu/.
[476] See the official website of Beidou http://www.beidou.gov.cn/.

2.8 Concluding Remarks

Chapter 2 of this thesis provides a detailed discussion of issues related to maritime jurisdictional claims and international maritime boundaries. Simply put, a coastal State, pursuant to the international law of the sea, is entitled to several zones of maritime jurisdiction measured from its baselines. Depending on coastal geographical factors, a coastal State may designate different type of baselines such as normal baselines, straight baselines, mouth of river closing line, bay closing line, lines connecting fringing reefs and archipelagic baselines. From these baselines, maritime zone of jurisdiction such as territorial sea, contiguous zone, EEZ and continental shelf are measured seaward. Each zone has its own breadth and legal properties that such coastal State and third State have to respect.

Pursuant to the law of the sea, many coastal States are entitled to a very large maritime area, which can be significantly larger than its land size. However, it is not possible for a coastal State to secure the entire maritime areas it is entitled to since its entitlement will undoubtedly overlap with others'. Where overlapping maritime areas occur between two or more States, maritime boundary delimitation is required. The delimitation can be done through negotiation, mediation, arbitration or third party such as the International Court of Justice (ICJ) or the International Tribunal for the Law of the Sea (ITLOS).

The latest development of maritime boundary delimitation introduced a new approach called three-stage approach. The approach consists of three steps in generating equitable solution in maritime boundary delimitation. The three steps are constructing provisional line, which is usually median or equidistance line, followed by the second step which is considering relevant factor that may or may not shift or adjust the previously constructed provisional line. The last step is disproportionality test to ensure that maritime boundary resulted in the delimitation does not cause disproportionality to parties in question. This approach has been implemented in several decision made by ICJ and also one decision by ITLOS.

This thesis in particular is testing the application of this three-stage approach in maritime delimitation by using Indonesia maritime boundaries as case studies. For the first step of the approach, equidistance or median line will be constructed as a provisional line where possible. In the second steps adjustment can be made by

considering four factors as highlighted in Chapter 1 of this thesis (see section 1.5). The four factors are the use of different baselines, the existence of resources, geographical features such as small islands and the potential use of different lines for seabed and water column in a same location. For this purpose, three case studies as analysed in this thesis, which are maritime delimitation in the Sulawesi Sea (Chapter 6), Singapore Strait (Chapter 7) and Malacca Strait (Chapter 8).

The three case studies are expected to provide options of maritime delimitation between Indonesia and its several neighbours by implementing the three-stage approach. Beyond that, it is expected that the analysis of the approach may lead to important findings regarding the advantages and disadvantages of the three-stage approach. In particular, the degree of certainty the approach can provide in maritime boundary delimitation is analysed. Furthermore, the analysis is expected to discover the weakness of the approach to anticipate relevant factors to consider in its implementation.

CHAPTER 3 INDONESIA'S MARITIME CLAIMS AND THEIR ROLE IN THE DEVELOPMENT OF THE LAW OF THE SEA

"I like a painting of ocean with waves hitting passionately, rather than, a painting of calm, quiet and peaceful rice field" - Soekarno, 1964

This chapter discusses the development of Indonesia's maritime claims and their role in the development of the law of the sea. This discussion builds on and complements that contained in the foregoing chapter which provided a global perspective on the evolution of the law of the sea and particularly baselines, maritime jurisdictional claims and boundaries. Here the focus is narrowed to the Indonesian context in order to provide the contextual underpinnings for subsequent analysis of Indonesia's agreed and pending concerns with international maritime limits and boundaries.

As will be demonstrated, since its independence in 1945, Indonesia has experienced significant development in terms of its claims to maritime jurisdiction. A notable theme that can be drawn from these progressive changes is that not only did Indonesia accept and benefit from the development of the law of the sea in the international arena, but that Indonesia has also been highly active in contributing to its development. The development of Indonesia's claims to maritime jurisdiction and contribution to the evolution of the law of the sea is traced chronologically through reference to key national laws and regulations that have been enacted for the purpose of defining Indonesia's maritime jurisdiction which are outlined and assessed in the course of this discussion.

3.1 The 1939 Ordinance – Three Nautical Miles of Territorial Sea

Maritime spaces off what were to become Indonesia's coasts were undoubtedly subject to long-standing usage long before the colonial period. Self-governing realms such as Ternate and Tidore and those in Sumatra were observed to practice and conduct maritime claims, especially concerning the utilisation of natural resources.[477] This indicates that the utilisation of offshore spaces and the resources contained in these waters were not new to the area that was to become Indonesia. The problem with these activities is that there was lack of legal confirmation that is recognised under the

[477] Butcher, JG. 2009, see above note 52, pp. 28-48.

modern international law. Hence sovereignty and sovereign rights over those maritime areas were uncertain.

On the other hand the government of the Netherlands Indies came with a different approach. It formalised its claim over maritime area through a legal instrument. The Netherlands Indies had official claim over maritime area long before Indonesia achieved independence in 1945.[478] In this colonial era what was to become the independent State of Indonesia formed part of the Netherlands Indies. During the nineteenth century the Dutch authorities appear to have had limited interest in the maritime areas associated with its colonies, including the maritime spaces around what would later become Indonesia.[479] It seems that the Netherlands Indies predominantly focused on the land-based resources and did not, at least initially, see the potential of maritime resources. It was not until the coming of the Australian pearlers, collecting shells in the eastern part of the archipelago that the Netherlands Indies viewed that maritime area and resources needed to be taken care of.[480] In particular, conflict arose between the Australian pearlers and Indonesian villagers concerning the exploitation of natural resources in the surrounding maritime area.[481] These incidents motivated the Netherlands Indies to issue an ordinance stating that it is illegal for foreigners to collect shells in the territorial sea of the Netherlands Indies.[482] This was the very first regulation issued by the Netherlands Indies concerning the colony's maritime areas.

The development in the middle of the twentieth century was coloured by the attempts of governments around the globe to extend their claims over maritime areas.[483] The Truman Proclamation in 1945, made by president of the United States of America, Harry S. Truman,[484] was one of the first official expressions of expansive claims to maritime jurisdiction beyond the traditionally narrow limits of the territorial sea (see Chapter 2, section 2.2). This was then followed by analogous claims on the part of other

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[478] One of the regulation produced by the Netherlands Indies is the *Territoriale zee en maritiemekringen-ordonnantie 1939* [Territorial Sea and Maritime Environment Ordinance] of 1939. See Hamzah, A., 1984, see above note 192.
[479] Butcher, JG. 2009, see above note 52, pp. 28-48.
[480] Butcher, JG. 2009, see above note 52, p.
[481] Butcher, JG. 2009, see above note 52, p. 30
[482] Netherlands Indies 1893: 261 in Butcher, JG. 2009, see above note 52.
[483] See also: The United Nations Convention on the Law of the Sea (A historical perspective). Accessed from <http://www.un.org/Depts/los/convention_agreements/convention_historical_perspective.htm#Historical%20Perspective>, on 4 May 2007.
[484] See also, The Truman Proclamation, see above note 119.

States, notably from Latin American States such as Chile, Peru and Ecuador (see Chapter 2, section 2.2). Similarly, the government of Netherlands Indies attempted to extend maritime claims for its colony. In 1935 for example, the Territorial Sea and Maritime District Ordinance was issued following an earlier ordinance of 1927 which declared that the territorial sea of the Netherlands Indies includes waters within 3 nautical miles of rocks, reefs, and banks.[485] The 1935 ordinance was issued to revise the 1927 ordinance because there were doubts that the 1927 ordinance was valid within the context of the international law.[486] In this context, it is clear that the efforts of the Netherlands Indies to claim a 3M territorial sea started in the early decades of the 20th century. Following a series of efforts, what turned out to be a final claim was made in 1939 through the *Territoriale Zee en Maritieme Kringen Ordonnantie* 1939 or Ordinance of Territorial Sea and Maritime Environment 1939.[487]

The Ordinance of Territorial Sea and Maritime Environment 1939 (hereafter referred to as the 1939 ordinance) invalidated the 1935 ordinance (S. No. 497), which had been modified by the 1938 ordinance (S. 200).[488] The 1939 ordinance was the last regulation produced by the Netherlands Indies concerning a territorial sea claim before the independence of Indonesia. On independence, through an agreement with the Netherlands Indonesia inherited all legal regulations made during the colonial rule.[489] This inheritance of legal regulation is in fact not an incontestable rule in the case of universal succession of States. A successor State secures full sovereignty so the State is in full control to decide whether or not it makes any change in terms of laws and political institution.[490] As previously highlighted, it appears that Indonesia, on its independence, agreed to inherit all legal regulations made during the colonial rule. Consequently, Indonesia also had to retain the 1939 ordinance which provided for a 3M

[485] Netherlands Indies, 1927: No. 144. See: Butcher, JG. 2009, see above note 52.
[486] Butcher, JG. 2009, see above note 52, p. 32
[487] The *Territoriale zee en maritiemekringen-ordonnantie 1939* [Territorial Sea and Maritime Environment Ordinance] of 1939. See Hamzah, A., 1984, see above note 192. A Bahasa Indonesia translation of the Ordinance 1939 can also be obtained from the Indonesian Legal Information. Accessed from <http://www.legalitas.org/incl-php/buka.php>?d=stb+0&f= stb1939-442.htm> on 20 January 2009.
[488] The 1939 Ordinance, Article 1.
[489] This clause was contained in the Agreement of the Transitional Measures signed in 1949 at the Roundtable Conference involving Indonesia and the Netherlands in The Hague. See: Tangsubkul, P., 1984, The Southeast Asian archipelagic states: concept, evolution, and current practice, Honolulu, East-West Environment and Policy Institute, p. 30.
[490] Amos S. Hershey, 1911. The Succession of States, *The American Journal of International Law*, Vol. 5, No. 2, pp. 287-288.

territorial sea measured from the low-water mark. The territorial sea claims based on the 1939 ordinance are visualised in Figure 3.1.

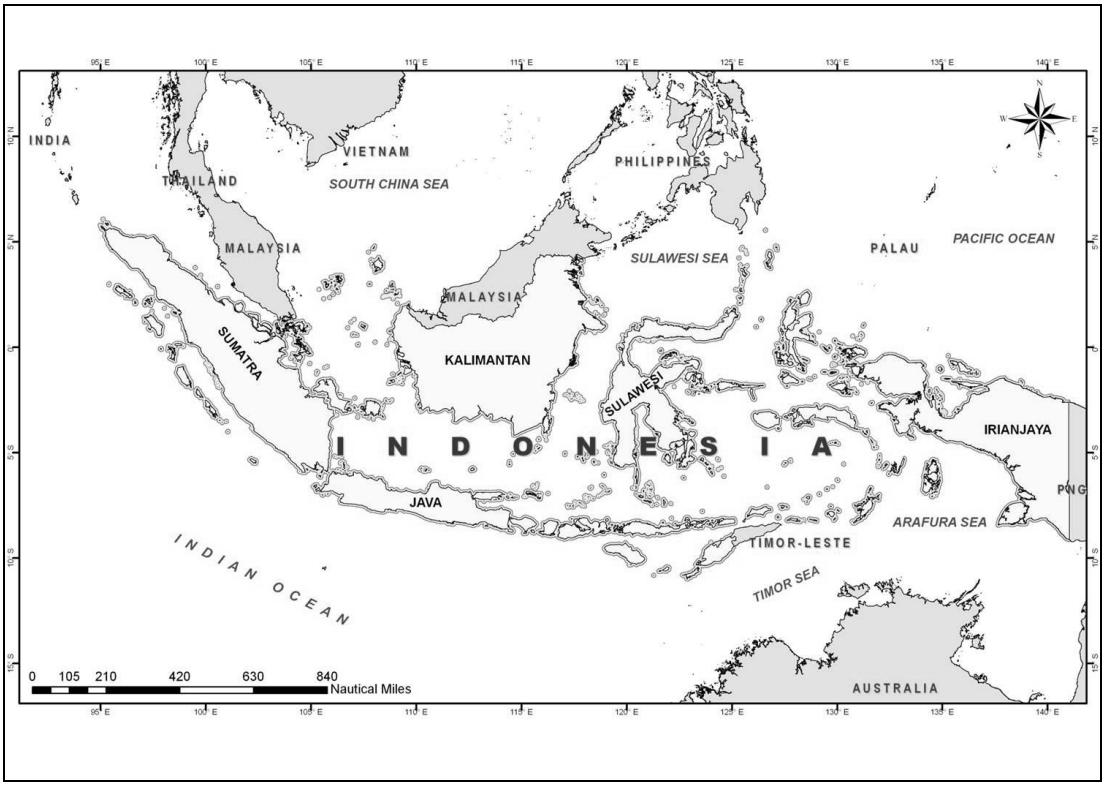

Figure 3.1 Map Showing the 1939 Ordinance[491]

Figure 3.1 shows that what was to become Indonesia was, under this scenario, fragmented into multiple groupings of islands, each with their own territorial sea and separated from one another by broad areas of high seas. Indeed, in the above scale of map, it is even hard to discern that each island has its own belt of territorial sea.

3.2 The Djoeanda Declaration of 1957 – Archipelagic State Concept

As an archipelagic State comprising an estimated 17,500 islands, many of which are located over 6 nautical miles (that is, beyond interlocking 3 nautical miles of territorial seas) from one another, the arrangement outlined above, that of distinct and apparently unconnected island groupings rather than a unified whole, was considered disadvantageous for Indonesia in that it 'could not contain the archipelago within a single jurisdictional blanket.'[492] In particular, the existence of pockets of high seas

[491] Bakosurtanal, 2009, Map of the Territoriale Zee en Maritieme Kringen Ordonnantie 1939.
[492] Djalal, DP, 1990, 'Geopolitical Concept and Maritime Territorial Behavior in Indonesian Foreign Policy' (MA Thesis, University of Simon Fraser University, Canada) 37. Accessed from Simon Fraser University Institutional Repository, at <http://ir.lib.sfu.ca/bitstream/1892/6274/1/b14497426.pdf> on 20 January 2009.

within the Indonesian archipelago, otherwise surrounded or largely surrounded, by Indonesian territorial sea areas, was viewed as detrimental to Indonesia's national interests. Firstly, it did not well serve the political need to ensure united and integration for a newly independent State. Secondly, it was problematic in terms of the management of marine resources including maritime surveillance, law enforcement and security considerations.

The above facts led Indonesia to advocate the archipelagic concept. The first stage in this process was the Djoeanda Declaration of 13 December 1957.[493] This document asserts that Indonesia, as an archipelago, possesses its own particular characteristics and should be considered as a single unit. The Declaration also asserted Indonesia's claim to a 12 nautical miles of territorial sea, measured from baselines connecting the outermost points of the Indonesian Islands.[494] The Djoeanda Declaration therefore also provides for the first claim by Indonesia to its archipelagic baselines. This declaration is generally considered to be the seed of Indonesia's Indonesian Archipelagic Outlook [*Wawasan Nusantara*] policy of 1973.[495] *Wawasan Nusantara* is a concept that views Indonesia as a whole, being a single entity that includes three domains (*matra*): air space, land and sea/ocean.

An interdepartmental committee established in 1956 by the then Indonesian Prime Minister Ali Sastroamijoyo, greatly influenced the outcome of the Djoeanda Declaration. It was Mochtar Kusumaatmadja,[496] a young member of the interdepartmental committee who for the first time drew a baseline system enclosing the whole archipelago by connecting the outermost points of the outlying islands, on a map of Indonesia in a primary school atlas.[497] From that point onwards, Indonesia attempted to apply the "archipelagic principle".[498] However, it was not solely the idea of Mochtar Kusumaatmadja since the idea of drawing baselines was a response to the challenge

[493] Issued by and named after Indonesian Prime Minister, Ir. H Djoeanda Kartawidjaja. See: Hamzah, A., 1984, see above note 192, pp.129-130. An English version of the declaration can be obtained from Djalal, DP, 1990, p. 228.
[494] Hamzah, A., 1984, see above note 192, pp. 129-130.
[495] Regarding the Wawasan Nusantara, see: Djalal, DP, 1990, *op cit*, as quoted from Department of Information, Republic of Indonesia, Decree of the People's Consultative Assembly of the Republic of Indonesia, no: III/MPR/1983 on the Guidelines of State Policy, Jakarta, Percetakan Negara, 1983.
[496] Mochtar Kusumaatmaja was later appointed as Indonesia's foreign minister. See also: Kusumaatmadja, M., 1972, The Legal Regime of Archipelagoes: Problems and Issues. The Law of the Sea, Needs and Interests of Developing Countries, 166.
[497] Butcher, JG. 2009, see above note 52, pp. 34-37.
[498] Danusaputro, 1980, Tata Lautan Nusantara dalam Hukum dan Sejarahnya [The Nusantara Maritime Regime in its Law and History], Binacipta, Bandung, in Butcher, JG. 2009, see above note 52, p. 37.

given by Chairul Saleh, the minister of Veteran Affairs, in relation to the slow progress of the interdepartmental committee.[499] Nonetheless, it was Mochtar Kusumaatmadja's proposal contained in the interdepartmental committee's document that the cabinet of Prime Minister Djoeanda Kartawidjaja then considered and adopted. On 13 December 1957, the cabinet came out with a statement entitled "Government Declaration concerning the Water Areas of the Republic of Indonesia" which then became known as the 'Djoeanda Declaration'. In addition to defining archipelagic baselines for the whole archipelago, the declaration also claimed a 12 nautical mile territorial sea measured from these archipelagic baselines.[500] The practice was, however, not commonly accepted at that time and the norm was that a State claimed only a three-nautical-mile territorial sea. The claim or proposal was undoubtedly not unopposed (see section 3.3).

3.3 The Act No. 4/Prp/1960 on Indonesian Waters

The Djoeanda Declaration also played another role – that of a 'position statement' of Indonesia ahead of the first United Nations Conference on the Law of the Sea (UNCLOS I) held in Geneva in 1958. It is clearly stated in the last paragraph of the declaration that the position stated in the declaration "will be maintained in the International Conference on the Law of the Sea which will be held in Geneva in February 1958". However, it seems that the effort was not fully successful. Although the question of a special regime applicable to archipelagos was discussed at the conference, this proposal was not incorporated into the resulting Conventions of 1958.[501] The key reason for this is because too few States advocating this view/position

[499] The interdepartmental committee was initially tasked to find a solution to prevent Dutch vessels from entering the Java Sea and eastern side of the Indonesian maritime area. At that time, tension between Indonesia and the Netherlands was building over claims to administration rights of West Papua, which resulted in a decision by the United Nations to transfer administration rights of this territory to Indonesia on 1 May 1963.

[500] Even though the definition of baselines was made by connecting the outermost points of the outlying islands of Indonesia, enclosing the whole archipelago, the term 'archipelagic baseline' was not specifically mentioned in the Djoeanda Declaration. It seems that Indonesia intentionally avoided to use the term of 'archipelagic baseline' because the concept was in its infancy and had yet to be fully articulated and accepted by the international community. For more detailed analysis of the declaration please see, Djalal, DP, 1990, *op cit*, Appendix III.

[501] Four Conventions emerged from the first United Nations Conference on the Law of the Sea, held in Geneva in 1958: Convention on the Territorial Sea and Contiguous Zone, opened for signature 29 April 1958, 516 UNTS 205 (entered into force 10 September 1964); Convention on the Continental Shelf, opened for signature 29 April 1958, 499 UNTS 311 (entered into force 10 June 1964); Convention on the High Seas, opened for signature 29 April 1958, 450 UNTS 11 (entered into force 30 September 1962); and Convention on Fishing and Conservation of the Living Resources of the High Sea, opened for signature 29 April 1958, 559 UNTS 285 (entered into force 20 March 1966). See also Tsamenyi, MB., Schofield, CH., and Milligan, B., 2008, 'Navigation through Archipelagos: Current State Practice', 413-454 in *Freedom of the Seas, Passage Rights and the 1982 Law of the Sea Convention*, p. 415.

and protests also came for key participants of the conference. The United States, for example, explicitly pretested Indonesia's proposal for it was viewed as being harmful to naval mobility and unimpeded transit rights through the Indonesian straits and inland seas.[502] The US protest was also followed by other States such as the United Kingdom, The Netherlands, Japan, Australia, France, and New Zealand, which were well documented in Syatauw's book, 'Some Newly Established Asian States'.[503] Indonesia therefore opted to act unilaterally and, in 1960, enacted Act No. 4/Prp/1960 concerning Indonesian Waters.[504] The enactment of the act also served as preparation for Indonesia's participation in the Second United Nations Conference on the Law of the Sea (UNCLOS II) of 1960.[505]

Through this legislation, Indonesia officially declared an 8,000km-long system of straight-line baselines, depicted on a map attached to the Act, consisting of 'straight lines connecting the outermost points on the low water mark of the outermost islands or part of such islands comprising Indonesian territory'.[506] This action was taken on the basis that 'since time immemorial' Indonesia has 'constituted one entity', that in the interests of the territorial integrity of the Indonesian State, all the islands and waters lying between these Indonesian islands 'should be regarded as a single unit.'[507] These baselines were therefore established on the basis of the emerging 'archipelagic principle' which had yet to be recognised in international law.[508] It is notable, however, that when the archipelagic concept was eventually accepted and codified through the Third United Nations Conference on the Law of the Sea (UNCLOS III) the language used in large part reflects that employed by Indonesia in its domestic legislation. Even though the act states clearly the definition of baseline, which was then known as archipelagic baseline, it does not specifically mention the term "archipelagic

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[502] Djalal, DP., 1990, *op cit*, p. 64; The United States response to the Indonesian claim appears in The New York Times of 18 January 1958. See: Brock, JR. "Archipelago Concept of Limits of Territorial Seas", International Law Studies - Volume 61: Role of International Law and an Evolving Ocean Law, Richard B. Lillich & John Norton Moore (editors), p. 333.
[503] Syatauw, J.J.G., 1961, Some Newly Established Asian States and the Development of International Law, The Hague: Nijhoff.
[504] Indonesia, *Act No.4 of the President of the Indonesian Republic*. Reproduced in *The Geographer*, United States Department of State, 'Straight Baselines: Indonesia', Limits in the Seas, No 35 (1971), Washington DC, 2-4.
[505] Butcher, JG. 2009, see above note 52, p. 41
[506] The Geographer, 1971, *op cit*. A map depicting the straight baseline was reproduced in the Limits in the Seas study by plotting coordinates of the basepoints on a nautical chart of Hydrographic Office 5590 (first published 1947, 1969 ed).
[507] The Geographer, 1971, *op cit*, p.1-2.
[508] The Geographer, 1971, *op cit*, p. 2.

baselines".[509] This apparent oddity can again be attributed to the fact that the archipelagic concept, and thus archipelagic baselines, was still evolving and was not at that time firmly embedded in international law and practice.

The 1960 act came with a map depicting the baselines as well as list of coordinates of basepoints forming the baseline system. Two important technical aspects to observe from the map are the length of baseline segments and the fact that the map does not specify the geodetic datum on which those coordinates were referenced. The baseline system has two long segments, with a length of 123 nautical miles, much longer than those introduced in, for example, the 'original' Norwegian straight baselines system (see also Chapter 2, subsection 2.3.2).[510] In addition, the map also includes West Papua, which at that time was still under dispute between Indonesia and the Netherlands,

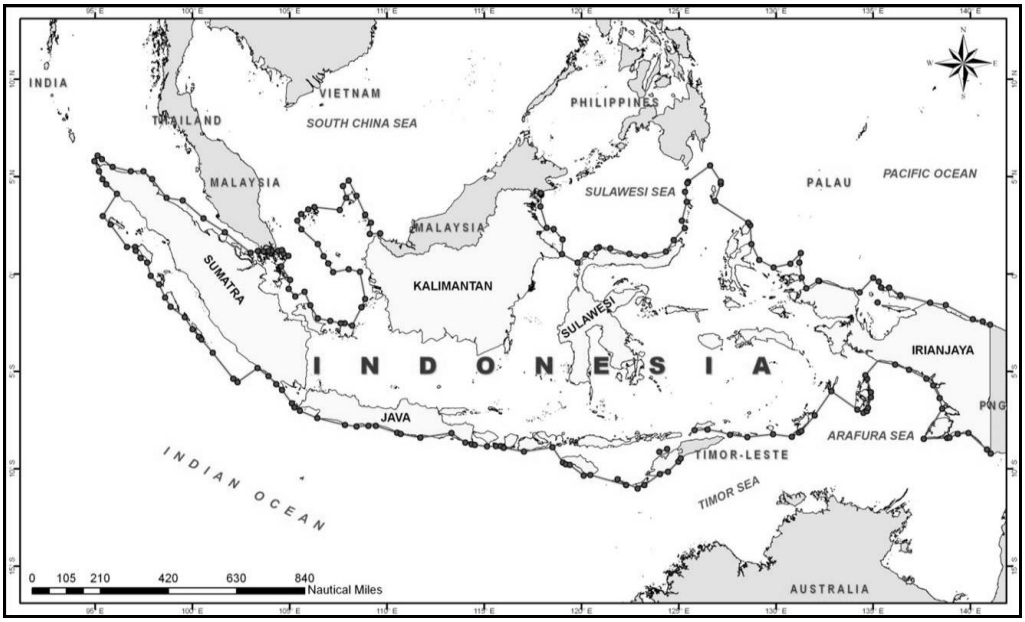

Figure 3.2 Map Showing the 1960 Baseline System of Indonesia[511]

The 1960 Act also governs the delimitation of the territorial sea where two States are opposite each other within a distance of less than 24M. It states that "in the case of straits with a width of not more than 24 nautical miles and Indonesia is not the only coastal state, the outer limit of the Indonesian territorial sea shall be drawn in the middle

[509] Act No. 4/Prp/1960, Article 1(2).
[510] The Geographer, 1971, *op cit.* See also: Butcher, JG. 2009, see above note 52, p. 43
[511] Bakosurtanal, 2009, Map of the 1960 Baselines of Indonesia.

of the strait."[512] It can be inferred from this article that the 1960 Act supports the application of 'median line' or 'equidistance line'[513] in the delimitation of territorial sea, even though it does not mention either one of these terms.

The 1960 Act can be considered as a breakthrough for Indonesia and it addresses the issue of the Indonesian waters reasonably comprehensively. Its enactment can be regarded as an important step on the part of Indonesia in advocating the archipelagic concept which was developed through the Third United Nations Conference on the Law of the Sea (UNCLOS III). It is worth noting however, that the 1960 Act was a unilateral action which did not receive universal acclaim from the international community when it was introduced. As previously highlighted, protests came from many different States. After a long negotiation, especially during the UNCLOS III, the principle of archipelagic State was eventually codified in international law through the United Nations Convention on the Law of the Sea (LOSC) of 1982.[514]

3.4 The Act No. 1/1973 – Indonesian Continental Shelf

As noted in Chapter 2, one of the first official claims, and by far the most influential one, over parts of the continental shelf seawards of the limits of the territorial sea was expressed by the United States of America through the Truman Proclamation (see Chapter 2, section 2.2).[515] However, it was not until 1958 that sovereign rights over continental shelf were codified through UNCLOS I in Geneva. Indonesia ratified the 1958 Convention on Continental Shelf, as well as Convention on Fishing and Conservation of the Living Resources of the High Seas, and Convention of the High Seas, through Act No. 19/1961.[516] Following this, Indonesia established its first continental shelf boundary with Malaysia in 1969 and with Australia in 1971 and 1972 (see Chapter 4). Interestingly, it was not before 1973 that Indonesia enacted an act

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[512] Act No. 4/Prp/1960, Article 1(2).
[513] These two terms are often used interchangeably through some commentators only apply the term 'median line' where delimitation between opposite coasts is under consideration. See for example: Legault, L. and Hankey, B. 1993. Method Oppositeness and Adjacency, and Proportionality in Maritime Boundary Delimitation. Charney, J.I. and Alexander, L.M. (eds) *International Maritime Boundaries*, Vol. I, Martinus Nijhoff, Dordrecht, pp. 207.
[514] United Nations, *United Nations Convention on the Law of the Sea*, Publication no E97.V10, (United Nations, New York, 1983). See 1833 UNTS 3, opened for signature 10 December 1982, Montego Bay, Jamaica (entered into force 16 November 1994), available at the United Nations Division of Ocean Affairs and the Law of the Sea website at <http://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm> (hereinafter 'LOSC' or 'the Convention').
[515] The Truman Proclamation, see above note 119.
[516] Hamzah, A., 1984, see above note 192, pp. 134-163.

specifically regarding continental shelf. This act is Act No. 1/1973.[517] It provides the definition of continental shelf, which is based on the 1958 Convention on the Continental Shelf, Indonesia's continental shelf claim, and rights and obligations of related parties within Indonesia's continental shelf. In addition, it also provides details on the penalties applicable in relation to any infringements made on Indonesia's continental shelf. It is worth noting that this legislation was unnecessary to secure Indonesia's rights as continental shelf rights are inherent to the coastal State (see Chapter 2). Nonetheless, this Act represents a useful articulation of Indonesia's claims which were in keeping with the 1958 Convention on this issue.

The Act No. 1/1973 adopted the definition provided in the 1958 Convention on the Continental Shelf verbatim. Thus, Act No.1/1973 states that continental shelf refers to the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 metres (m) or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas; or to the seabed and subsoil of similar submarine areas adjacent to the coasts of islands.[518] One critical issue concerning the definition of continental shelf is the criteria of exploitability, which made the definition ambiguous. This is because the outer limits of the continental shelf were not necessarily fixed, instead being dependent on seabed resource exploration and extraction technologies. Thus, as such technologies advanced and improved over time, so the further seaward exploitation could take place and therefore the outer limits of the continental shelf could moved or shift further offshore. Therefore, such a definition can be effectively regarded as open-ended.[519] This definition of continental shelf has now been substantially revised under LOSC 1982.[520]

When defining sedentary species, Act number 1/1973 states that sedentary species are organisms in "their developmental stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil."[521] It seems that the definition adopted by the act is different from that stated by the 1958 Convention on the Continental Shelf, which states "organisms which, at the

[517] For a complete documentation of the Act No. 1/1973, see Hamzah, A., 1984, see above note 192, pp. 218-223
[518] Act no. 1/1973, Article 1 (a, b).
[519] TALOS, 2006, see above note 41, Chapter 1 (4-5).
[520] LOSC, Article 76.
[521] Act No. 1/1973, Article 1(a).

harvestable stage"[522] instead of "developmental stage". These two definitions are significantly different and accordingly refer to different organisms. The 1958 Convention on the Continental Shelf emphasises that an organism qualifies sedentary species if in its harvestable stage it does not move or moves only with direct contact with seabed or subsoil. This means that it does not matter whether or not the organism is mobile before its harvestable stage. On the other hand, Act No. 1/1973 mentions a broader term "developmental stage", which means that an organism can only be classified as a sedentary species if during all of its life it is always attached to the seabed or subsoil. In other words, the act does not classify an organism that floats in the water during its early stage in life but attaches to the seabed when it is ready to be harvested, such as sea cucumber, as a sedentary species.

The two different definitions may lead to debate when it comes to defining sedentary species. An organism that is classified as a sedentary species in the 1973 Act might not be qualified the same as in the 1958 Convention on the Continental Shelf and vice versa. It is not clear, however, why the 1973 Act adopts a different term compared to that in the 1958 Convention on the Continental Shelf. Considering that the language of the 1973 Act is very close to the 1958 Convention on the Continental Shelf when defining continental shelf and sedentary species, it was possible that there was a mistake in understanding the 1958 Convention on the Continental Shelf. In addition, the problem might have occurred because of inaccuracies in translating the 1958 Convention on the Continental Shelf from English into Bahasa Indonesia in the 1973 Act.

With regard to the status of natural resources of the continental shelf, the 1973 Act governs that the sovereign rights and its ownership belong to the State, the Republic of Indonesia.[523] Furthermore, the 1973 Act states that the exploration and exploitation of the resources should be conducted based on "rules and regulations" in relevant sectors.[524] For the purposes of the exploration and exploitation the Act enables the development of relevant installations, vessels and other supporting equipment,[525] which are declared, when established, as the domain of the Indonesian customs.[526] To protect

[522] 1958 Convention on Continental Shelf, Article 2(4).
[523] Act No. 1/1973, Article 2.
[524] Act No. 1/1973, Article 4.
[525] Act No. 1/1973, Article 6(1).
[526] Act No. 1/1973, Article 9(2).

such installations from disturbance, it is possible to establish a "forbidden zone" with a distance of maximum 500 metres, measured from the outer point/edge of each installation.[527] In addition, the government may establish a "limited zone" with a distance of no more than 1,250 metres from the outer limits of the aforementioned forbidden zone, where vessels are not allowed to release their anchors.[528] Terms and conditions concerning the development, protection, and use of the aforementioned installations are further governed by relevant government regulations. In addition, the 1973 Act also states that any activities conducted on, under or above the installations or within the forbidden and limited zones are subject to provisions of the Indonesian rules and regulations. For marine scientific research related to resources of the continental shelf in particular, the 1973 Acts states that it should be conducted based on relevant government regulations.[529]

In conducting exploration and exploitation activities in the Indonesian continental shelf, parties are obliged to prevent pollution[530] and, in the case of pollution, prevent the pollution from spreading out.[531] Anything related to pollution in the water superjacent to the Indonesian continental shelf is further governed by Government Regulation.[532] In addition to prevention of pollution, all exploration and exploitation of natural resources in the continental shelf are obliged to respect the interests of national safety and security, transportation, telecommunications, electricity, fisheries, oceanographic research, other scientific researches and natural heritage.[533] Should any party fail to comply with these obligations, the Indonesian government retains right to suspend or permanently cancel its operating license.[534] In addition, the 1973 Act also governs penalties for those who fail to comply specifically with Article 4 and 5 of the Act. One provision, for example, states that a violator is subject to be imprisoned (6 years maximum) or a maximum fine of Rp 1 Million.[535] Nowadays, such a fine seems to be negligible as a consequence of inflation and the declining value of the Indonesian rupiah. At the time of writing, for instance, Rp 1 Million equals approximately AUD

[527] Act No. 1/1973, Article 6(2).
[528] Act No. 1/1973, Article 6(3).
[529] Act No. 1/1973, Article 5.
[530] Act No. 1/1973, Article 8(1)(a).
[531] Act No. 1/1973, Article 8(1)(b).
[532] Act No. 1/1973, Article 8(2).
[533] Act No. 1/1973, Article 10(1).
[534] Act No. 1/1973, Article 10(3).
[535] Act No. 1/1973, Article 11.

92.[536] While this level of fine appears low from an Australian perspective, it is worth noting that it is equivalent to approximately half of the monthly salary of a junior government officer (at the level of 3B or around 5-years working experience). This indicates that the amount is incompatible with an offence conducted in the continental shelf. Accordingly, this fine might need to be updated to reflect the severity of the transgression in relation to current day financial conditions.

Another important provision of the 1973 Act is the one concerning continental shelf delimitation. The act governs that in case the Indonesian continental shelf entitlement overlaps with those of other States, continental shelf boundaries can be delimited through negotiations, in order to achieve agreements.[537] This provision seems to be partly drawn from the 1958 Convention on the Continental Shelf.[538] However, the 1973 Act does not mention any method in delimiting the continental shelf. This is distinct from the 1958 Convention on the Continental Shelf which states that "in the absence of agreement, and unless another boundary line is justified by special circumstances, the boundary is the median line, every point of which is equidistant from the nearest points of the baselines from which the breadth of the territorial sea of each State is measured." In other words the 1958 Convention on the Continental Shelf explicitly states a particular, preferred method to conduct the delimitation, which is median line, save for when "special circumstances" dictate otherwise. In contrast, the 1973 Act of Indonesia does not. To a certain extent, the 1973 Act is less detailed compared to the 1958 Convention on the Continental Shelf when it comes to maritime delimitation.

To sum up, the 1973 Act represents the first act that officially governs the Indonesian continental shelf. It covers the definition of continental shelf, exploration and exploitation of its natural resources, and penalties for offending the terms of this legislation. Even though the act is reasonably comprehensive for Indonesia, there are some issues such as definition of continental shelf and sedentary species that can be misleading. The inadequacy of current fines for an offence against the act is also a point of concern. Even though, the 1973 Act appears to be inconsistent with the revised definition of the continental shelf under LOSC, which, as previously noted, Indonesia is a party, the act itself has not yet been invalidated.

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[536] Based on the exchange rate of Google per 2 December 2013.
[537] Act No. 1/1973, Article 3.
[538] 1958 Convention on the Continental Shelf, Article 6.

To maintain its compliance with LOSC regarding continental shelf, Indonesia has delineated the outer limits of its continental shelf beyond 200 nautical miles for the area west of Sumatra and made a submission to CLCS in 2008.[539] After a reasonably long process of consideration, the CLCS issued its recommendation which was adopted by CLCS on 28 March 2011 as stated in the "Statement by the Chairperson of the Commission on the Limits of the Continental Shelf on the progress of work in the Commission – Twenty-seventh session."[540] With this recommendation, Indonesia then can proceed to define the outer limits of its continental shelf in the area which is "final and binding" in nature. [541]

3.5 The Act No. 5/1983 – Indonesian Exclusive Economic Zone

Through UNCLOS III (1973-1982), the principle of the EEZ was recognised. The United Nations Convention on the Law of the Sea (LOSC), the Convention produced through UNCLOS III, officially include the sovereign rights of coastal States over EEZ.[542] One year after the opening of the LOSC for signature, Indonesia enacted Act No. 5/1983 concerning the Exclusive Economic Zone of Indonesia (EEZI), following the Indonesian Government Announcement of 21 March 1980 on EEZI.[543] The 1983 Act starts with a definition of key terms such as living and non living resources of the EEZ, marine scientific research, natural resource conservation, and protection of marine environment.[544] Furthermore, the act defines EEZI as "an area beyond and adjacent to the Indonesian territorial sea, as it is determined by the law applicable to the Indonesian waters, covering the sea-bed, the subsoil thereof and the water above it with an

[539] See, Summary of recommendations of the commission on the limits of the continental shelf in regard to the submission made by Indonesia in respect of the area north west of Sumatra on 16 June 2008. Available at <http://www.un.org/Depts/los/clcs_new/submissions_files/idn08/Summary%20Recommendations%20for%20Indonesia.pdf>, accessed on 20 May 2013.
[540] See, Statement by the Chairperson of the Commission on the Limits of the Continental Shelf on the progress of work in the Commission – Twenty-seventh session [CLCS/70]. Available at <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N11/354/96/PDF/N1135496.pdf>, accessed on 20 May 2013.
[541] LOSC, Article 76(8).
[542] LOCS, Part V.
[543] The 1980 Declaration defined 200 nautical miles limits to the Indonesia EEZ which at that time, had been accepted as part of the new international law of the sea. For a complete documentation of the declaration, see an English version of the declaration at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/IDN_1980_DeclarationEEZ.pdf>.
[544] Act No. 5/1983, Article 1.

outermost limit of 200 (two hundred) nautical miles, measured from the baseline of the Indonesian territorial sea."[545]

The 1983 Act explicitly states that Indonesia secures sovereign rights over its EEZ to conduct exploration and exploitation, management and conservation of living and non-living natural resources found in the seabed and subsoil and in the water superjacent to it. In addition, the act states that these sovereign rights also include other activities related to the economical exploration and exploitation of resource and activities within the EEZ such as water, wind or current-powered electricity.[546] In addition, according to the Act, Indonesia also has sovereign right over its EEZ in relation to development and management of artificial islands, installations, and other buildings, marine scientific researches, and conservation of marine environment.[547] In keeping with the Act, the development and use of those artificial islands and marine scientific research should be conducted in accordance with permission, and term and conditions issued by the Government if the Republic of Indonesia.[548] Furthermore, the 1983 Act states that as far as it concerns the sea-bed and the subsoil thereof, the sovereign rights and other rights, jurisdiction and duties of Indonesia mentioned earlier, "shall be exercised in accordance with the legislative provisions on the Indonesian continental shelf, agreements concluded between the Republic of Indonesia and neighbouring States and the rules of international law in force."[549] Similarly, the freedom of international navigation and overflight, as well as the freedom of laying submarine cables and pipelines within the Indonesian exclusive economic zone, "shall be respected in accordance with the principles of the international law of the sea."[550]

Similar to Act No. 1/1973 on Continental Shelf, the 1983 Act also deals with pollution within the EEZ of Indonesia. It states that those who conduct any activity within the Indonesian EEZ must prevent, minimize, control and overcome the pollution of the environment. Discharge of waste can only be made after having permission of the Government of the Republic of Indonesia.[551] It also governs indemnity of any loss

[545] Act No. 5/1983, Article 2. This is consistent with the wording of Article 56 (1) (a) and 57 of the LOSC.
[546] Act No. 5/1983, Article 4(1)(a).
[547] Act No. 5/1983, Article 4(1)(b).
[548] Act No. 5/1983, Article 6 and 7.
[549] Act No. 5/1983, Article 4(2).
[550] Act No. 5/1983, Article 4(3).
[551] Act No. 5/1983, Article 8.

caused by any activity in the Indonesian EEZ.[552] In addition, with regard to law-enforcement, provisions of the 1983 Act state that in the case of any offence made by any ship and/or persons within the Indonesian EEZ, "such measures shall include the detention of the ship until the handing over of such ship and/or persons at the port, where the said case can be further prosecuted."[553] The agency responsible for the law-enforcement in the field is Naval Officer of the Indonesian Armed Forces, so assigned by the Commander-in-Chief of the Armed Forces of the Republic of Indonesia.[554] Concerning punishment to offenders, the 1983 Act states a much larger fine than that stated in the 1973 Act on Continental Shelf. For a violation of the provisions in article 5, paragraph (1), article 6 or article 7 of the 1983 Act, for example, the offender shall be punished by a fine to a maximum of Rp 225 Million (two hundred and twenty-five million rupiah). This is 225 times the fine stated in Article 11 of the 1973 Act. Although not direct, this can be used to illustrate the pressures of inflation of the Indonesian rupiah over a period of ten years. Alternatively, this may imply how Indonesia viewed the importance violation on continental shelf and EEZ.

Another important issue governed by the 1983 Act is maritime delimitation. It is stated that in the case of overlapping EEZ claims between Indonesia and its neighbours, either opposite or adjacent, "then the boundary line between the exclusive economic zone of Indonesia and that of the other State shall be established by agreement between the Republic of Indonesia and the State concerned."[555] In addition it states that the boundary line shall be the "median line or a line that is equidistant from the baselines of Indonesian territorial sea or the outermost points of Indonesia and the baselines of the territorial sea or outermost points of the other State" so long as a previous agreement does not exist.[556] In addition, it is also stated that this median line option is possible if no special conditions exist that need to be considered and if there is no agreement that has been reached with the said State "on a provisional arrangement of the boundaries of the Indonesian exclusive economic zone."[557] In other words, Act No. 5/1983 explicitly mentions a specific method for delimitation alternative. To an extent, this provides

[552] Act No. 5/1983, Chapter V.
[553] Act No. 5/1983, Article 13 (a).
[554] Act No. 5/1983, Article 14 (1).
[555] Act No. 5/1983, Article 3 (1).
[556] Act No. 5/1983, Article 3 (2).
[557] Act No. 5/1983, Article 3 (2).

clearer guidance compared to the LOSC, which only mentions the term "equitable solution" for EEZ delimitation.[558]

To sum up, it is evident that Indonesia has been an enthusiastic EEZ claimant, even before the third LOSC was concluded. Indonesia's first declaration of EEZI in 1980, two years before the signing of the LOSC, evidences this. Furthermore, Indonesia issued an act on its EEZ only one year after the signing of the LOSC and three years before it ratified the LOSC. This underlines the fact that Indonesia has taken an active role in terms of EEZ claims. Indonesia, to an extent, has also been progressive when it comes to EEZ delimitation. Indonesia and Australia agreed on EEZ boundary delimitation in 1997[559] (see also Chapter 4). Similar to the 1973 Act on Continental Shelf, the 1983 Act on EEZ also mentions a specific method in delimiting maritime boundaries, using the median line, even though it is not suggested that this is the only option and no preferred method of delimitation is mentioned in LOSC (see Chapter 2, subsection 2.5.1). LOSC, on the other hand, does not specify any method for EEZ boundary delimitation. Instead, it states that the EEZ delimitation is "to achieve an equitable solution."[560]

3.6 The Act No.17/1985 – Ratification of the LOSC

Indonesia is one of the States that ratified the LOSC relatively shortly after signing it. It ratified the LOSC on 31 December 1985 through the Act No. 17/1985 on the Ratification of the United Nations Convention on the Law of the Sea.[561] The act is one of the shortest acts in Indonesian legislation, consisting of only two articles. One article states the ratification of the LOSC,[562] while the other one asserts the need to publish the ratification so that it is recognised by the public.[563]

Even though the main content of the 1985 Act is brief, it does contain a reasonably long explanation concerning the LOSC. Generally, the act explains how the LOSC is distinct from the 1958 Convention by highlighting the changes made through LOSC and

[558] LOSC, Article 74 (1).
[559] Treaty between the Government of Australia and the Government of the Republic of Indonesia establishing an exclusive economic zone boundary and certain seabed boundaries. See Prescott, JRV., 2002, Australia-Indonesia, Report Number 6-2(6) in Charney J.I. and Smith R. W. (eds) *International Maritime Boundaries*, pp. 2714-2727, Martinus Nijhoff Publishers, the Netherlands.
[560] LOSC, Article 74 (1).
[561] The Indonesian version of this law can be downloaded from the Indonesian State Ministry of Environment. Accessed from <http://www.menlh.go.id/i/art/pdf_1038295269.pdf> on 3 July 2008.
[562] Act No. 17/1985, Article 1.
[563] Act No. 17/1985, Article 2.

explains new matters that were not covered in the 1958 Convention. It lists two main explanations of the provisions contained in the 1985 Act. They are general explanation and article by article explanation. In general explanations, fourteen items are covered. The act emphasizes several important points that relate to Indonesia. In particular, the inclusion of archipelagic state principle in the LOSC is one of the important points covered in the 1985 Act's explanation, emphasizing that this is an important achievement in which Indonesia is significantly benefited. It states that for Indonesia, the Convention is important since, for the first time, the principle of Archipelagic State is recognised by the international community, which Indonesia had fought for 25 years.[564]

Other points noted in the General Explanation of the Act Number 17 of 1985 are the new definition of the continental shelf, the emergence of new regimes such as the contiguous zone and EEZ, the definition of the maximum breadth of the territorial sea and high sea, the introduction of the regime of islands, rules on enclosed and semi-enclosed seas, as well as regarding land-locked states, international seabed area, conservation, marine scientific research, technology transfer, and dispute resolution. On the definition of the outer limits of the continental shelf, the 1985 Act explains the procedure as it is set out in Article 76 of the LOSC. However, it does not explain in detailed the use of two criteria (1 per cent sediment thickness and 60 nautical miles from foot of slope) and two constraints (350 nautical miles from baselines and 100 nautical miles seaward of 2500 metre isobath line).[565] On the explanation of EEZ, the 1985 Act states that coastal States is entitled to the utilisation of living and non-living resources in water column the breadth of which is up to 200 nautical miles.[566] The 1985 Act does not, however, explain that EEZ is in fact encompasses seabed and subsoil. With regard to maritime delimitation, the 1985 does not either explain any provision relevant such as Article 15, 74 and 83 of the LOSC.

At the closing provision of the 1985 Act, it was emphasised that LOSC shall prevail, as between States Parties, over the Geneva Conventions on the Law of the Sea.[567] This means that the LOSC applies between Indonesia and all of its maritime neighbours, all of which are parties to LOSC.

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[564] General Explanation of the Act Number 17 of 1985.
[565] General Explanation of the Act Number 17 of 1985on regime of maritime zones, paragraph 4.
[566] General Explanation of the Act Number 17 of 1985on regime of maritime zones, paragraph 3 (a)).
[567] General Explanation of the Act Number 17 of 1985on regime of maritime zones, paragraph 14 (a)).

The ratification of the LOSC through the 1985 Act consequently means that Indonesia accepts all the provisions in the LOSC,[568] including the definition of the continental shelf. Considering that the definition of continental shelf under the LOSC differs from the 1958 Convention on the Continental Shelf, while the 1973 Act remains applicable in Indonesia, it can be said that there is inconsistency in Indonesian Law in this regard. However, when it comes to defining the outer limits of its continental shelf, Indonesia refers to the LOSC.[569] Accordingly, it can be inferred that by promulgating Act No. 17/1985, the definition of continental shelf in Act No. 1/1973 is, in practice, no longer applicable to Indonesia.

In conclusion, Act No. 17/1985 confirms Indonesia's acceptance of the provisions of the LOSC. By issuing this act, Indonesia is fully bound by the LOSC and for Indonesia it means that LOSC shall prevail over previously existing rules and regulations. With respect to the delimitation of the EEZ and continental shelf, for example, once LOSC is agreed to be the guiding law, Indonesia is obliged to base its arguments on Articles 74 and 83 of the LOSC, which are slightly different from relevant articles concerning delimitation in the 1983 and 1973 Acts on the EEZ and continental shelf, respectively That said, and as outlined in Chapter 2, the LOSC provisions on the delimitation of the continental shelf and EEZ are extremely general.

3.7 The Act No. 6/1996 on Indonesian Waters

For more than ten years since the enactment of the Act No. 17/1985 on the ratification of the LOSC, Indonesia was reasonably inactive in terms of issuing rules and regulations concerning ocean affairs and the law of the sea. There was no significant ocean-related regulation issued in a period of around a decade to follow up the LOSC ratification. It was not until 1996 that the Indonesian government decided to enact the new Act No. 6/1996 on Indonesian Waters.[570] This act considers that the 1960 Act is no longer suitable for Indonesia, because the country has since been recognised as an

[568] The official record by the United Nations shows, however, that Indonesia ratified the LOSC on 3 February 1986. See: Law of the Sea Bulletin number 26. Available at <http://www.un.org/depts/los/doalos_publications/LOSBulletins/bulletinpdf/bulE26.pdf>. It seems that this is has something to do with the time Indonesia officially provide relevant document to the United Nations regarding the ratification.

[569] Indonesia has submitted the outer limit of its continental shelf for the area to the west of Sumatra. For an executive summary of the submission see <http://www.un.org/Depts/los/clcs_new/submissions_files/submission_idn.htm>.

[570] Act No. 6 of 8 August 1996 regarding Indonesian Waters [Indonesian Waters Act of 1996], available at <www.un.org/Depts/los/ LEGISLATIONANDTREATIES/PDFFILES/IDN_1996_Act.pdf> at 20 January 2009.

archipelagic State by the international community through the LOSC. Accordingly this Act revoked Act No. 4/1960.

The 1996 Act begins by defining important terms such as archipelagic State, island, and archipelago, as adopted by the LOSC. The 1996 Act also defines Indonesian waters, covering 12 nautical miles of territorial sea, archipelagic waters, and internal waters.[571] Other terms defined by the act are low water line, low tide elevation, bays, and archipelagic sea lanes.[572]

The 1996 Act is the first act in Indonesia that uses the term 'archipelagic baselines'. It defines archipelagic baselines in a manner consistent with Article 47 of the LOSC.[573] For example, it clearly mentions important rules, such as maximum length of a baseline segment,[574] which is the same with length criteria as in Article 47 of the LOSC. However, it does not include a critical criterion of the land-water ratio as suggested by Article 47 of the LOSC. It only includes a provisional illustrative map and indicates that this would be valid until technological advances would provide maps with more adequate scale and lists of geographical coordinates.[575] Even though the Indonesian *Waters Act of 1996* changes the configuration of Indonesia's archipelagic baseline compared to that in the Act number 4/Prp/1996, most of the basepoints/baselines defined in previous act were unchanged. Only those around the Natuna Sea are significantly altered so as to include Pulau Sipadan and Pulau Ligitan.

On 16 June 1998, Indonesian authorities issued a set of supplementary regulations which provides a partial list of geographical coordinates for Indonesia's archipelagic baselines in the Natuna Sea.[576] The reason given for issuing this partial list relates to the need to designate Indonesia's Archipelagic Sea Lane (ASL) around the Natuna

[571] Indonesian Waters Act of 1996, Article 1(4) and 3(2).
[572] Indonesian Waters Act of 1996, Article 1.
[573] Indonesian Waters Act of 1996, Article 6(2) and 25(1).
[574] Indonesian Waters Act of 1996, Article 5(4).
[575] Indonesian Waters Act of 1996, Article 25 (1).
[576] See *Peraturan Pemerintah* (PP) [Government Regulation] No. 61 of 1998, on the List of Geographical Coordinates of the Base Points of the Archipelagic Baselines of Indonesia in the Natuna Sea, available at the United Nations Division of Ocean Affairs and the Law of the Sea website at <http://www.un.org/Depts/los/LEGISLATION ANDTREATIES/PDFFILES/IDN_1998_Regulation61.pdf> at 20 January 2009; see also the website of Indonesian Department of Research and Technology at <http://www.ristek.go.id/index.php>?mod=Regulation&conf=f&file=21092007112233_perundangan.pdf > at 20 January 2009.

Islands,[577] which was then approved by International Maritime Organization (IMO) as a partial designation of ASLs in May 1998.[578]

With regard to maritime delimitation, the 1996 Act only deals with the territorial sea, where Indonesia's coast is opposite or adjacent to another State's coast. The terms in the 1996 Act are consistent with the provision of article 15 of the LOSC in this matter. It states that if there is no agreement between Indonesia and its neighbour, Indonesia's outer limit of territorial sea is the "median line every point of which is equidistant from the nearest points on the baselines from which the breadth of the territorial seas of each of the two States is measured."[579] However, the 1996 Act also states that other methods of delimitation can be used for reasons of historic title or special circumstances.[580]

3.8 Government Regulation No. 38/2002 – Baselines

As previously mentioned, the Act No. 6/1996 includes only an illustrative map depicting Indonesia's archipelagic baseline. It does not provide a list of coordinates with specific geodetic datum. It also states that the map is only provisional and is valid until maps with adequate scale and lists of geographical coordinates were provided. This indicates that the 1996 Act has to be completed with maps and list of coordinates of basepoints and these documents need to be submitted to the United Nations Secretary General.

A further and more nearly complete, though still partial, list of geographical coordinates of basepoints defining Indonesia's archipelagic baselines system was issued on 28 June 2002 through Government Regulation (*Peraturan Pemerintah*) No. 38/2002 (*PP No. 38/2002*, referred to hereafter as 2002 PP).[581] However, this baselines designation was still incomplete as it did not 'plug the gap' in Indonesia's archipelagic baselines system

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[577] The designation of archipelagic sea lane is in accordance with the LOSC, art 53(9). See also: Explanatory note to the Government Regulation of the Republic of Indonesia No 61 of 1998 on the list of geographical coordinates of the base points of the archipelagic baselines of Indonesia in the Natuna Sea, available at <http://www.un.org/Depts/los/ LEGISLATIONANDTREATIES/PDFFILES/IDN_1998_Regulation61.pdf> at 16 March 2009.

[578] IMO, 1998, Annex 9, Resolution MSC 72 (69): Adoption, Designation and Substitution of Archipelagic Sea Lanes. Available at <http://www.imo.org/blast/blastDataHelper.asp?data_id=15438&filename=72(69).pdf>. Accessed on 20 May 2013.

[579] Act No. 6 of 8 August 1996 regarding Indonesian Waters, Article 10 (1).

[580] Act No. 6 of 8 August 1996 regarding Indonesian Waters, Article 10(2).

[581] See PP No. 28 of June 2002, available at <http://www.dtic.mil/whs/directives/corres/20051m_062305/indonesia.doc> at 20 January 2009. See also the website of Indonesian Department of Energy and Mineral Resources at <http://www.esdm.go.id/prokum/pp/2002/pp_38_2002.pdf> at 28 January 2009.

in the vicinity of Timor Island.[582] A gap remained between Pulau Meatimiarang and a basepoint at the southern terminal point of the land boundary between Indonesia and Timor-Leste. This was surprising given that Timor-Leste achieved independence as the Democratic Republic of Timor-Leste (hereafter Timor-Leste) on 20 May 2002, over a month before the Indonesian authorities issued the 2002 PP. It was also clear that Timor-Leste had been heading towards independence since the 1999 referendum on this issue.[583]

This aforementioned fact confirms that Timor-Leste was already independent when the 2002 PP was promulgated. This means that the designation of baselines around Timor Island could have accommodated the fact that some parts of Timor Island belong to a newly-independent State of Timor-Leste. Indonesia could have designated archipelagic baselines in the area in such a way to complete the loop for sovereignty over Timor Island was no longer an issue. It is understandable, however, that it would have taken a longer time for the designation to be finalised, should Indonesia decided to complete the baselines around Timor Island with consideration to the independent Timor-Leste. It seems that it was in Indonesia's interest that the baselines designation had to be as soon as possible. One of the reasons is the sovereignty issue over Sipadan and Ligitan, which at that time was being disputed by Indonesia and Malaysia. The 2002 PP also includes basepoints on Sipadan and Ligitan, the sovereignty of which was still unclear (see section 3.7). It seems that the inclusion was for the purpose of strengthening Indonesia's claim over Sipadan and Ligitan, the sovereignty of which was to be decided by the International Court of Justice (ICJ) a few months after the promulgation of the 2002 PP (see below).

In the Sulawesi Sea, three basepoints are also located on two islands: Sipadan and Ligitan (see Figure 3.3).[584] Meanwhile, the ICJ's 17 December 2002 judgement in the case concerning *Sovereignty over Pulau Sipadan and Pulau Ligitan (Indonesia/Malaysia)* determined that the sovereignty over Sipadan and Ligitan rests

[582] The gap in the Indonesian baselines system as designated in 2002 existed between point TD. 109 on Pulau Meatimiarang and point TD. 115 at the south coast of Pulau Timor.
[583] The referendum was held on 30 August 1999, involving more than 90% participants. Indonesia gave an opportunity for Timor Leste to decide whether to be independent or to embrace autonomy. The results showed that 78.5% of the East Timorese favoured independence and rejected the autonomy suggested by Indonesia. See: Timor Leste, 2013, History. Available at <http://timor-leste.gov.tl/?p=29&lang=en>.
[584] Point TD.036C and TD.036B on Pulau Ligitan, point TD.036A on Pulau Sipadan. See: PP no. 38/2002.

with Malaysia.[585] It can be observed that the three basepoints in question were placed on Sipadan and Ligitan around six months before the ICJ delivered its judgement, meaning that at that time the sovereignty status of Sipadan and Ligitan was yet to be decided. It is worth noting that when the case was brought before the ICJ, Indonesia and Malaysia agreed to use 1969 as a critical date. The two States agreed to give a *status quo* to the two island in 1969 for no conclusion was achieved so that their status of sovereignty would not affect legal position of each party in maritime delimitation.[586] When the case was brought before ICJ, both parties requested the Court primarily to analyse the contributing factors, of effective occupation/administration, which date from the period before 1969, the year in which the Parties asserted conflicting claims to Ligitan and Sipadan.[587]

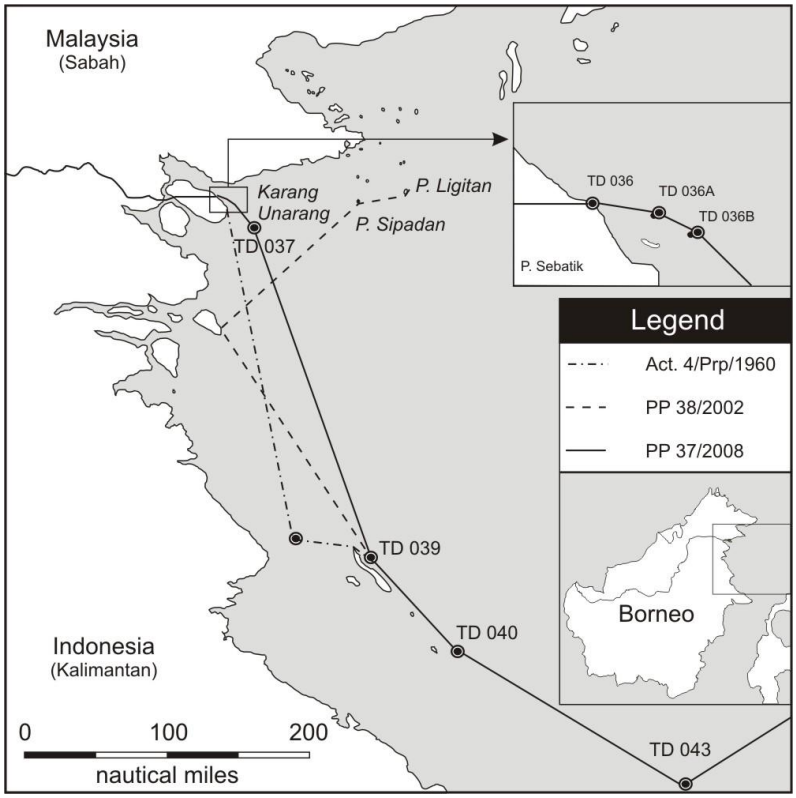

Figure 3.3 Baselines Configuration in the Sulawesi Sea[588]

The foregoing indicates that sovereignty over Sipadan and Ligitan was not yet certain when the 2002 PP was issued. Accordingly, the decision by Indonesia to include the

[585] Sipadan and Ligitan Case, see above note 70.
[586] Wirajuda, Hassan. 2006. ”Lesson Learned from the Resolution of Sipadan and Ligitan Islands Dispute”. in Sutisna, S. (ed) “Overview on Indonesia’s Borders”. Jakarta: Centre for Boundary Mapping, Bakosurtanal.
[587] See Sipadan and Ligitan Case, see above note 70.
[588] Illustration by the author.

two islands in the 2002 PP sparks questions on the motivation behind the inclusion since the sovereignty of those two islands was at that time uncertain. Legally, the incorporation of Sipadan and Ligitan into Indonesia's archipelagic baselines system clearly did not have any influence on the sovereignty over the two islands because it was done after 1969. It can be suggested that the inclusion of the two islands was done by Indonesia for political rather than legal reasons. In addition, the action was meant to be a correction action for the two islands were omitted from Indonesia's earlier version of its archipelagic baselines. This thesis infers from this inclusion that Indonesia sought to reinforce its official position at that time that Sipadan and Ligitan constituted part of Indonesia's territory, even though the sovereignty over them had yet to be decided by the ICJ.

In conclusion, the 2002 PP does not fully enclose the Indonesian Archipelago with a complete baseline system, which consequently brings up some issues. Firstly, there is no clear distinction between archipelagic waters and territorial sea, for example, especially in areas where baselines have yet to be completed. This can be problematic for navigation since the rights of navigation for foreign vessels in territorial sea are different from that in the archipelagic waters.[589] Secondly, incomplete baselines prevent Indonesia from defining its unilateral maritime limits and maritime boundaries with its neighbours (bilateral).[590] Revision needed to be made for at least two locations: the Sulawesi Sea to exclude Sipadan and Ligitan, and around Timor Island (which includes both the independent nation of Timor-Leste and the Indonesian province of West Timor) to close the existing gap west of Pulau Meatimiarang. Accordingly, a new baseline system needed to be designated with more basepoints (see below).

3.9 Government Regulation No. 37/2008 – Baselines

In order for Indonesia to complete its archipelagic baseline designation, a further Government Regulation (*PP No. 37/2008*, hereafter referred to as '2008 PP') was issued on 19 May 2008. [591] The new regulation strives to address the previously issued *PP No.*

[589] In the territorial sea, innocent passage applies (LOSC, Article 17), while in the archipelagic waters, archipelagic sea lanes passage (LOSC, Article 53) applies in addition to innocent passage (LOSC, Article 52).

[590] Baselines are reference from where outer limits or maritime territorial sea and other zones are measured (Article 5 of the LOSC). Baselines and basepoints are also critical for maritime boundary delimitation, especially when median line/equidistance line is chosen to draw the line.

[591] For a complete documentation of the Government Regulation no. 37/2008, see: <http://www.legalitas.org/incl-php/buka.php>?d=2000+8&f=pp37-2008.htm>. Accessed on 27 January 2010.

38/2002 by revising Indonesia's archipelagic baselines system in three locations: in the Sulawesi Sea; in the vicinity of Timor Island; and off the south coast of Java (Indian Ocean) as illustrated by Figure 3.4.

Figure 3.4 Three Locations in Indonesia Requiring Baselines Revision: in the Sulawesi Sea; in the Vicinity of Timor Island; and off the South Coast of Java[592]

In the Sulawesi Sea, the three basepoints located on Pulau Sipadan and Pulau Ligitan in the 2002 designation were omitted. Instead, four new basepoints were defined: one on Pulau Sebatik; two others on low tide elevations (LTEs) close to Pulau Sebatik; and an additional one on another LTE, Karang Unarang.[593] All of the LTEs used fall wholly or partly within 12 nautical miles from the nearest Indonesian mainland or island baseline.[594] This consequently generates a reasonably long segment at Pulau Maratua, with a length of 110.27 M. This raised an issue in the context of Article 47(2) of LOSC which provides that a maximum of three per cent of the total number of baselines enclosing any archipelago to exceed 100 nautical miles, "up to a maximum length of 125 nautical miles" (see below). The limitation of three per cent rule is to prevent archipelagic States from designating baselines that enable them to claim excessively large maritime areas. The more the number of segments longer than 100 nautical miles, the higher the chance for such an archipelagic State to violate the three per cent rules.

[592] Illustration by the author.
[593] T. Patmasari, E. Artanto, S.Lokita, S.Sutisna, and C. Hafidin, 'The Indonesian Archipelagic Baselines: Technical and Legal Issues and the Changing of Environment', paper presented on 17 October 2008 at the Advisory Board on the Law of the Sea (ABLOS) Conference on Difficulties in Implementing the Provisions of UNCLOS, 15-17 October 2008, Monaco, available at, <http://www.gmat.unsw.edu.au/ablos/ABLOS08Folder/Session6-Paper2-Patmasari.pdf>, accessed on 20 March 2009.
[594] Pursuant to article 13 of LOSC stating that "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."

That is why, Indonesia needed to minimise the number of segments the length of which is longer than 100 nautical miles by breaking down long segments into shorter ones.

Another required revision of Indonesia's baselines related to the area around Timor Island. It is worth noting that the independence of Timor-Leste marks a return to a situation similar to that which existed when Indonesia's first set of archipelagic baselines were established in 1960 – that is, Timor-Leste, including Oecussi, Pulau Jaco and Pulau Atauro (Kambing) were not part of Indonesia.[595] Therefore, designating 'new' baseline similar to that governed by Act no. 4/Prp/1960 was one of the options. The new baseline system in this area, as designated by *PP No. 37/2008*, starts at a basepoint (TD.109 – TD meaning *Titik Dasar* which means basepoint) at Pulau Meatimiarang and proceeds to two basepoints (TD.110 and TD.110A) on Pulau Leti. The line then continues to TD.111 (Pulau Kisar), TD.112 (Pulau Wetar), and TD.112A (Pulau Lirang). From Pulau Lirang, the line departs to Pulau Alor. From TD.113 (Tg. Lisomu)[596] on Pulau Alor, normal baselines are used up to TD.113A (Tg. Seromu) and then another straight segment is defined to TD.113B (Tg. Sibera). From here the line continues to TD.114 (Mota Biku) at Timor Island, the northern terminus of the main land border between Timor-Leste and Indonesian West Timor on the northern coast of Timor Island. At the southern terminus of the same land boundary on the southern coast of Timor Island, a new basepoint, TD.114A, was established at Mota Talas. From Mota Talas, Indonesia's archipelagic baselines proceed westwards, linking points on the coast of the western part of Timor Island, consistent with basepoints that were previously defined in PP. 38/2002. Figure 3.5 illustrates the revised archipelagic baselines of Indonesia around Timor Island.

[595] In 1960 these areas were still under Portuguese colonial administration.
[596] "tg." is an abbreviation for *tanjung*, meaning cape.

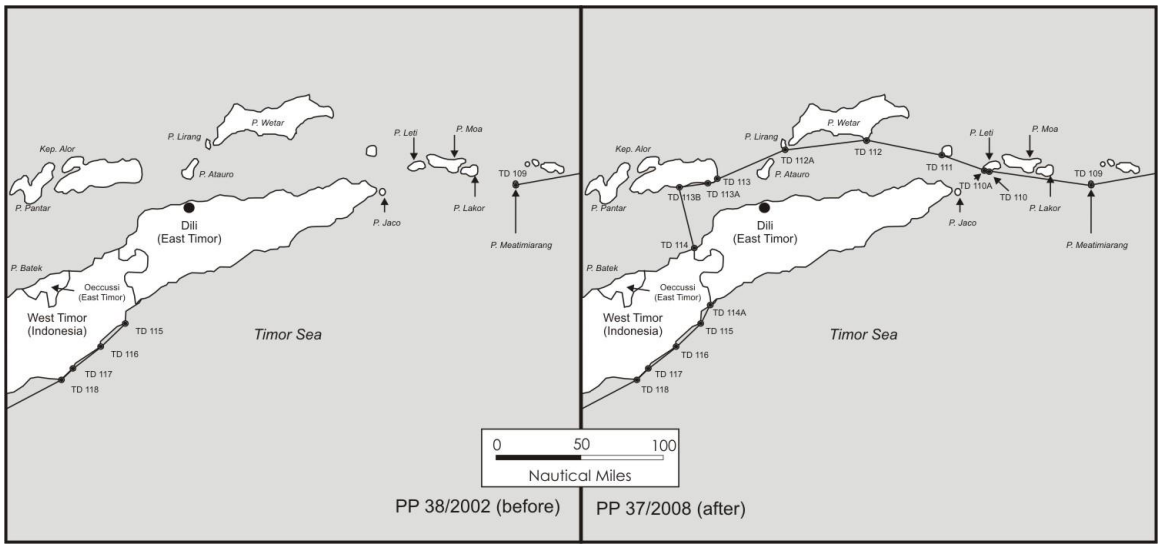

Figure 3.5 Archipelagic Baselines of Indonesia around Timor Island[597]

That part of the redesignation of Indonesia's archipelagic baselines linking Pulau Alor to Pulau Timor appears to be problematic. In particular this is because part of the land territory of Timor-Leste, Oecussi, is located within Indonesia's revised baselines and is thus 'trapped' within Indonesia's archipelagic waters. This would seem to contravene LOSC Article 47(5) which provides that archipelagic baselines "shall not be applied by an archipelagic State in such a manner as to cut off from the high seas or the exclusive economic zone the territorial sea of another State." As illustrated by Figure 3.5, it is noticeable that a baseline segment also runs very close to Pulau Kambing or Atauro, a Timorese Island, which may be problematic when it comes to maritime boundary delimitation. The segment connecting TD 112A at Pulau Lirang and TD 113 at Tg. Lisomu, Pulau Alor runs very close to Pulau Atauro at a distance of less than 2 nautical miles. Should this baseline segment of Indonesia's be given full effect in maritime boundary delimitation, which Indonesia is likely to prefer, a boundary line will run very close to the northern side Pulau Atauro at a distance of less than one nautical miles. Consequently, Pulau Atauro will have a very narrow maritime space to its northern side that may become a disadvantage to Timor-Leste.

For its part, Timor-Leste officially submitted its position to protest Indonesia's archipelagic baselines.[598] In particular, Timor-Leste states that it "does not recognise the

[597] Illustration by the author.
[598] Permanent Mission of the Democratic Republic of Timor Leste, 2012, Communication from the Government of the Democratic Republic of Timor-Leste to the Secretary General of the United Nations dated 5 February 2012. Retrieved from

archipelagic straight baselines" drawn from TD 112A to TD 113 and the one from TD 113B to TD 114. Timor-Leste's reason for the first segment is that it "does not take in consideration the median linen between the territorial sea of Timor-Leste's island of Atauro and territorial sea of Indonesia's island of Lirang and Alor." For the second segment, Timor-Leste does not recognise it for it is not in conformity with Article 47 (5) of the LOSC. The segment was deemed to encompass the territorial sea of Timor-Leste's Oecussi in such a way excluding Oecussi from access to high sea and its EEZ. It seems that the first reason provided by Timor-Leste is less convincing since there is no provision in the LOSC requiring a designation of archipelagic baselines to consider median line between two States. For the second reason, on the other hand, Timor-Leste's view seems to find its ground that the segment drawn from Pulau Alor to Pulau Timor is problematic.[599] At the time of writing (May 2013), Indonesia for its part has yet to respond to Timor-Leste's rejection. Regardless of Indonesia's response, it is safe to say that negotiation between Indonesia and Timor-Leste in this part of maritime area is not straight forward.[600]

In order to bring Indonesia's archipelagic baselines into conformity with the three per cent requirement provided by LOSC Article 47(2) following the designation of an additional baselines segment exceeding 100 nautical miles in length in the Sulawesi Sea (see above), an alteration was made to Indonesia's archipelagic baselines on the south coast of Java. Accordingly, one long (102.08 nautical mile long) archipelagic baseline segment located along the south coast of central Java on the Indian Ocean which had been defined in 2002 (TD.140 – TD.143), was split into three shorter segments through the addition of two new basepoints – TD.141 (Tg. Ngeres Langu) and TD.142 (Batu Tugur). As a consequence, the new baseline configuration has been shifted slightly landwards, although the resulting impact on Indonesia's archipelagic waters and territorial sea claims is minimal, about 1,100 square kilometres (321 square nautical miles).[601] Impact on EEZ is even less since the longer the distance of the outer limits of

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<http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/DEPOSIT/communicationsredeposit/mzn67_2009_tls.pdf> on 30 May 2013.

[599] See: Schofield, C. and Arsana, I MA. 2009, *op cit*, p. 61.

[600] For a comprehensive analysis on maritime boundary delimitation between Indonesia and Timor Leste, see, Arsana, IMA, 2007, Critical Study on The Technical Aspects of The Maritime Boundary Delimitations: A Case Study of The Maritime Boundary Delimitation between The Republic of Indonesia and the Democratic Republic of Timor Leste, Unpublished Master Thesis at the University of New South Wales.

[601] The loss of Territorial Sea was calculated using World Vector Shoreline (public domain) data by utilising CARIS LOTS (Law of the Sea) software.

maritime zone from baselines, the less effect the baselines will have. In the case of normal baselines, in particular, outer limits that are located farther offshore have a "lesser tendency to reflect the sinuosity of the baseline."[602] This redesignation provides an excellent example of how coastal States can readily side-step the seemingly strict three per cent rule contained in LOSC Article 47(2), simply by dividing up long archipelagic baseline segments into greater numbers and shorter stretches of archipelagic baseline.

Following the amendment to baseline segments in the Sulawesi Sea, around Timor Island and the south coast of Java, the Indonesian archipelagic baselines system includes five segments with lengths in excess of 100 nautical miles.[603] Taken together, these baseline segments account for 2.564 per cent of the 195 baseline segments that make up the Indonesian system. The freshly revised Indonesian baseline configuration therefore complies with the three per cent rule laid down in Article 47(2) of LOSC.[604] Figure 3.6 illustrates Indonesia' latest version of archipelagic baselines deposited with the United Nations Secretary General on 11 March 2009.[605]

[602] See for example TALOS, 2006, see above note 41, Chapter 5-4.
[603] These are TD.037-TD.039 (110.27 nautical miles), TD.155-TD.156 (102.15 nautical miles) TD.171C-TD.174 (113.61 nautical miles), TD.071-TD.072 (122.74 nautical miles), and TD.059-TD.160 (122.75 nautical miles).
[604] For a comprehensive analysis on the revision of Indonesian archipelagic baselines, see for example: Schofield, C. and Arsana, I MA., 2009, Closing the Loop: Indonesia's revised archipelagic baselines system, Australian Journal of Maritime and Ocean Affairs; Volume 1, Issue 2; 2009; 57-62.
[605] For maritime zone notification and a complete list of the coordinates, see: <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/IDN.htm>, accessed on 24 March 2009.

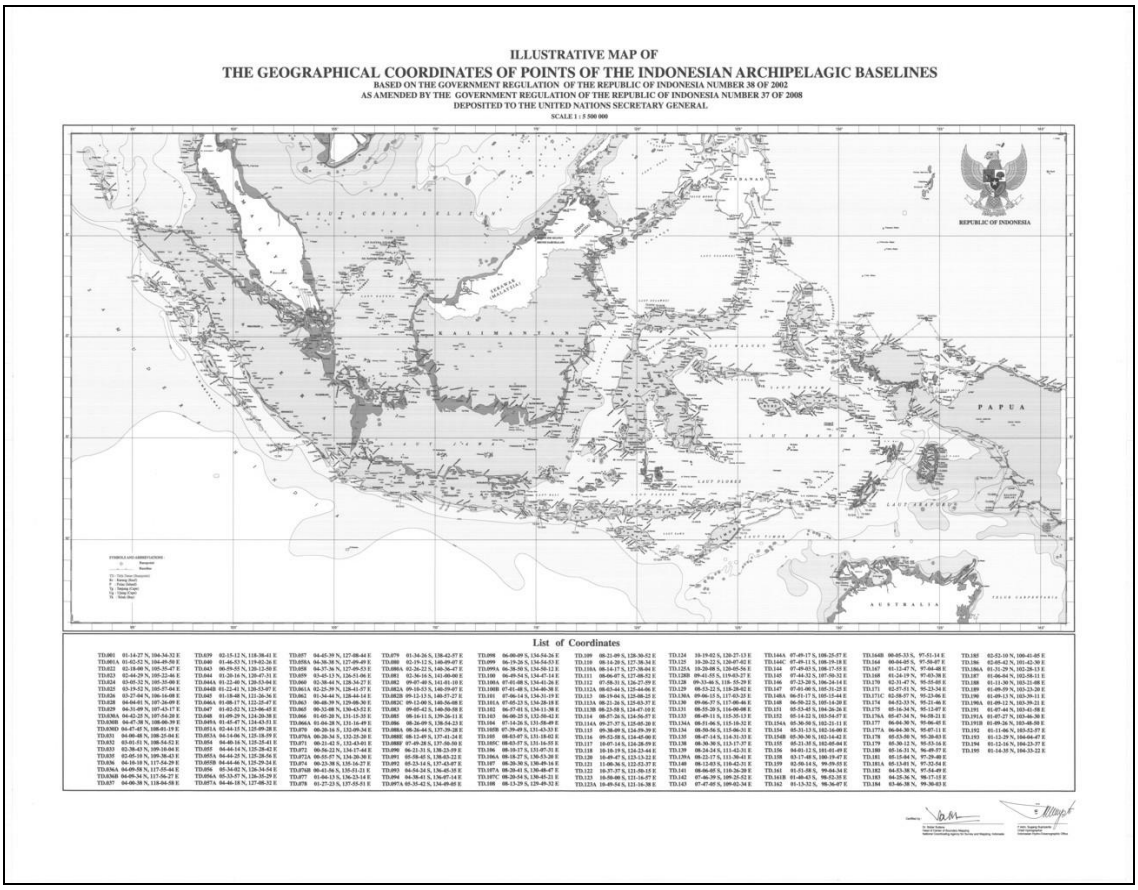

Figure 3.6 Map Showing the Completed Archipelagic Baseline of Indonesia[606]

To sum up, *PP No. 37/2008* revises the baseline system defined in 2002 by providing for alterations in three areas. First, basepoints previously located on Pulau Sipadan and Ligitan have been excluded in recognition of the ICJ's Judgment regarding Pulau Sipadan and Pulau Ligitan and alternative basepoints have been established on Pulau Sebatik and Karang Unarang. Second, the gap has finally been closed in Indonesia's archipelagic baselines around Timor Island. Third, relatively minor but necessary revisions have been made to certain baseline segments along the south coast of Java.

3.10 The Act No. 43/2008 on National Territory

On October 28th, 2008, the Indonesian House of Representatives, *Dewan Perwakilan Rakyat, DPR* passed Act No. 43/2008 on national territory (*wilayah negara*). It is the first time for Indonesia to enact a specific act concerning national territory including land and sea. Even though through the principle of *uti possidetis juris*, Indonesia inherited territory of its predecessor, the Dutch, Indonesia has never specifically

[606] Illustrative map accompanying the deposit of geographical coordinates of points of Indonesia's archipelagic baselines. Available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/MAPS/idn_mzn67_2009.jpg>.

declared or defined its geographical territory. Meanwhile, the 1945 Indonesian Constitution specifies that national territory should be governed by a specific law.[607] Thus, the adoption of the national territory law can be regarded as an important achievement.

It is stated that the national territory covers all land area, internal waters, archipelagic waters territorial sea including seabed and subsoil underneath and airspace above them. Furthermore, the act comprehensively explains basic principle and definition of terms related to national territory and international boundaries.[608] "Water territory",[609] as explained by the 2008 Act, covers internal waters, archipelagic waters, and territorial sea.[610] Meanwhile, jurisdiction includes EEZ, continental shelf, and contiguous zone over which Indonesia secures sovereign rights. It also provides the definition of territorial boundaries[611] and jurisdictional boundaries[612] and claims over contiguous zone,[613] EEZ[614] and continental shelf.[615]

Continental shelf appears to be defined based on Article 76 of LOSC, though this is not explicitly stated which is different from the definition in Act No. 1/1973 (see Chapter 3, section 3.4). However, in defining the outer limits of continental shelf, the act provides unclear statement regarding two constraints: 350 nautical mile line and 2,500 m isobath + 100 nautical miles. The language of Article 1(9) of the act does not clearly specify whether these two constraints can be applied independently or combined, which means that the outer limits of continental shelf, when it meets the test of appurtenance, can either be 350 nautical miles from the territorial sea baselines or up to a distance of 100 nautical miles from the 2,500 m isobath. Instead, the act mentions that the outer limit is "up to 350 (three hundred and fifty) nautical miles to a distance of 100 (one hundred) nautical miles from the 2,500 (two thousand, five hundred) meter isobath." This provision is, to an extent therefore, confused and unclear and as such has the potential to be misinterpreted. By reading the provision one may not have clear understanding that the two constraints can be applied simultaneously so that the two can generate one

[607] UUD 1945, Article 25A.
[608] Act No. 43/2008, Article 1.
[609] Water territory is a direct translation from "wilayah perairan".
[610] Act No. 43/2008, Article 1 (2).
[611] Act No. 43/2008, Article 1 (4).
[612] Act No. 43/2008, Article 1 (5).
[613] Act No. 43/2008, Article 1 (7).
[614] Act No. 43/2008, Article 1 (8).
[615] Act No. 43/2008, Article 1 (9).

combined constraint. That the combined constraint enables the outer limits of continental shelf to go beyond 350 nautical miles from baselines or beyond 100 nautical miles from 2,500 metre isobath.

Notwithstanding the fact that the mention of the constraints of the outer limits of continental shelf may be ambiguous, the 2008 Act confirms that Indonesia adopts the definition of continental shelf from LOSC, to which, as previously mentioned, Indonesia is a party. However, the 2008 Act also asserts that any rule and regulation concerning territorial and jurisdictional boundaries remains applicable as long as it is not in conflict with the 2008 Act or until it is replaced by a new rule or regulation based on this 2008 Act.[616] This implies that the 1973 Act on continental shelf remains applicable because it has not been invalidated by the 2008 Act. With regard to the definition of outer limits of continental shelf, the 1973 Act can be viewed as in conflict with the 2008 Act because they provide two different definitions. Inferring from Article 23 of the 2008 Act, the definition of outer limits of continental shelf as written in the 1973 Act is no longer applicable.

When dealing with national territory, the 2008 Act also deals with multilateral boundaries. The law states that territorial boundaries (in land, maritime and airspace) are established by relevant bilateral/trilateral agreements.[617] In some areas, the outer limits of Indonesia's territory are represented by agreed lines between Indonesia and its neighbours. In the Malacca Strait, for example, Indonesia's territory is limited by the agreed maritime boundaries between Indonesia and Malaysia signed on March 17th, 1970. Similarly, in Singapore Strait, the limit of Indonesia's territory is partially the line delimiting territorial sea between Indonesia and Singapore, signed on 25 May 25 1973 for the eastern segment and on 10 March 2009 for the western segment.[618]

Furthermore, provisions of the Act state that Indonesia has territorial land boundaries with Malaysia, Papua New Guinea, and Timor-Leste. Meanwhile, for territorial sea boundaries, Indonesia deals with Malaysia, Papua New Guinea, Singapore, and Timor-Leste, where the distance between Indonesia and each of those States is less than 24

[616] Act No. 43/2008, Article 23.
[617] Act No. 43/2008, Article 5.
[618] MFA, 2009. Penandatanganan Perjanjian antara Republik Indonesia dan Republik Singapura tentang Penetapan Garis Batas Laut Wilayah Kedua Negara di Bagian Barat Selat Singapura [The signature of Agreement between the Republic of Indonesia and the Republic of Singapore regarding Territorial Sea Boundary in the western part of Singapore Strait]. Accessed from <http://www.deplu.go.id/?press_id=831> on 15 March 2009.

nautical miles. To date, Indonesia has not yet completed territorial sea boundaries with all neighbours. Once a new treaty of maritime boundaries has been achieved, the treaty will serve as the outer limits of Indonesia's territory pursuant to the 2008 Act. In this regard, the 2008 Act treats international treaties concerning territorial boundaries as inseparable to the act.[619] This means that it also includes international treaties that have to be concluded existed.

Another important provision in the new law is the establishment of a Border Management Board for central and local government, which in Bahasa Indonesia are called *Badan Pengelola Nasional* and *Badan Pengelola Daerah*, respectively.[620] The board is to be established within six months after the enactment of the law.[621] Its responsibility includes the definition of policy concerning program development in border areas; budgeting; operational coordination; and monitoring and evaluation.[622] The purpose of the formation of this board is, to accelerate and facilitate development of border areas, especially of land border areas. However, it was not until February 2010 the National Border Management Board (*Badan Nasional Pengelola Perbatasan, BNPP*) was at last established.[623] It is worth noting that the Indonesian government did not manage to comply with the 2008 Act in establishing such an important board within six month as suggested. This also indicates that it took longer that it was initially anticipated for Indonesian government bodies (both central and local) to design or plan a robust design of BNPP. Politically speaking, this might be due to the change of government in 2009.[624] During the campaign and transition, the establishment of the BNPP did not seem to have been seen as a major priority.

Pursuant to the Presidential Regulation No. 12 of 2010 and the Ministry of Home Affairs No. 31 of 2010, BNPP has a permanent secretariat to help and facilitate the work of the agency. The permanent secretariat is under the structure of the Ministry of Home Affairs. At its early stage, it was suggested that, in order to speed up the work of the agency, it should recruit people and experts which are familiar with the border

[619] Act No. 43/2008, Article 6(2).
[620] Act No. 43/2008, Article 14.
[621] Act No. 43/2008, Article 25.
[622] Act No. 43/2008, Article 15.
[623] BNPP was established through Presidential Regulation No 12 of 2010. Available at <http://sipuu.setkab.go.id/PUUdoc/16884/PERPRES0122010.pdf> access on 20 May 2013.
[624] Presidential General election took place on 8 July 2009. See: official website of the Indonesian General Election Commission at <www.kpu.go.id>.

issues. This is important to prevent the delay in establishing the national policy on border management due to lack of capacity.

Ideally speaking, BNPP should start its role by focusing on personnel's capacity building by conducting relevant research and studies on best practices in the management of international boundaries and border area. This can ideally improve capacity and capabilities of BNPP's human resources, which in turn can guarantee the quality of "national policy" BNPP is assigned to develop. With solid team members, adequate knowledge in boundary issues and well-established national policy on border management, BNPP can then play its coordinating role for border management in Indonesia. Focusing on the aforementioned activities is more essential compared to its active involvement or, extremely speaking, its attempt to take over activities currently taken care of by existing institutions.

To sum up, the enactment of the 2008 Act concerning national territory is an important achievement in Indonesia of relevance to the definition of its maritime spaces and delimitation of its maritime boundaries. With the new act, Indonesia is in a stronger position than before with regard to legal and geospatial dimensions of its national territory. This, in turn, this act can facilitate the process of territorial boundary establishment, security maintenance and resource management. However, the formation and operation of a Border Management Board is one of the critical parts of the 2008 Act. Management is critical and the certainty of national territory is not the end of the story. Accordingly, hope and expectation are reasonably high to the newly established National Border Management Board. It should lead the way to not just a better security, but also a better-developed border area and more beneficial to the people of Indonesia, especially those who rely on conducive border areas. It may be viewed as Indonesia's new approach on border management.[625]

3.11 Concluding Remarks

On its independence in 1945, Indonesia inherited the colonial rules and regulations concerning maritime claims. Indonesia then based its claims on the 1939 Ordinance where the breadth of territorial sea was only 3M from coastline. This consequently

[625] For a comprehensive analysis on the Indonesia's new approach on border management in relation to the establishment of BNPP, see: Arsana, I M. A. and Lokita, S. 2011, Indonesia's New Approach to Border Management, in Zein, M. S. and Arsana, I M. A. Contribution Matters! 2.0: Insights of Indonesian Students in Australia, PPIA, Canberra, Australia .

generated high seas between islands in Indonesia, a situation that was viewed negative to the integrity and security of Indonesia. Prime Minister Djoeanda then produced the Djoeanda Declaration which claimed waters between the islands of Indonesia, those lying within the Indonesian archipelago, as part of Indonesian territory. This declaration was then formalised by the enactment of Act No. 4/Prp/1960, which also designates the first Indonesian archipelagic baselines.

Since the Djoeanda Declaration, Indonesia had been active in proposing the concept of the archipelagic state to the international community, however, in the first and second UNCLOS, this proposal was not accepted. Meanwhile Indonesia was also active in declaring its maritime claims following the positive development of the law of the sea. In 1973 and 1983 it issued acts concerning continental shelf and EEZ, respectively. With regards to continental shelf, there is a possibility for a coastal State like Indonesia to confirm its entitlement beyond 200 nautical miles from its baselines. While the entitlement does not require active declaration, the definition of its outer limits requires the role of an international body within the United Nations which is the UN Commission on the Limits of the Continental Shelf (CLCS). Consequently the definition of the outer limits of the continental shelf beyond 200 nautical miles is not purely unilateral and it involves complex procedure. Indonesia has also partially defined the outer limits of its continental shelf beyond 200 nautical miles for area to the west of Sumatra.

As discussed in Chapters 2, coastal States are entitled to maritime zone of jurisdictions, which is ‘creeping’ in terms of breadth. This indicates the development of maritime claims and entitlement of a coastal State over maritime area as also the case of Indonesia as discussed in this Chapter (Chapter 3). Furthermore, coastal States’ entitlement over continental shelf beyond 200 nautical miles from their baselines as discussed in Chapter 2 (section 2.4.6) lead to the creation of more extensive areas of overlapping maritime claims among neighbouring States. This is inevitably leading to some disputes and the need for the delimitation of maritime boundaries. Since the 1960s Indonesia has also been active in establishing maritime boundaries with its neighbours as part of its contribution to ocean affairs and the law of the sea. The first maritime boundary Indonesia agreed is the one with Malaysia in 1969, followed by other agreements. At the time of writing, Indonesia has established maritime boundaries, fully or partially, with seven neighbours: India, Thailand, Malaysia, Singapore, Vietnam,

Papua New Guinea, and Australia (see Chapter 4). The next step for Indonesia regarding maritime boundaries is the completion of pending maritime boundaries, which becomes the main concern of this thesis.

By the conclusion of the third UNCLOS, the archipelagic state concept was accepted by the International community and adopted in the LOSC. This can be seen as a significant contribution of Indonesia and other archipelagic States to the development of the law of the sea. Not only did Indonesia receive benefit from the development, it also contributed to the development itself. Therefore, the internal development in Indonesia and its contribution cannot be separated from the current stage of the law of the sea that the world enjoys. One of the developments in the 1982 LOSC that is viewed as an achievement is much clearer provision definition of the outer limits of the continental shelf which is discussed in Chapter 2 (subsection 2.4.6).

CHAPTER 4 INDONESIA'S AGREED MARITIME BOUNDARIES

"Don't throw stones at your neighbours, if your own windows are glass." - Benjamin Franklin

4.1 Introduction

This chapter concerns Indonesia's maritime boundary agreements. As previously noted in Chapter 2, by considering the outer limits of maritime zones of 200 nautical miles, As briefly highlighted in Chapter 1, types of maritime boundaries between Indonesia and its neighbours are territorial sea, EEZ and continental shelf. Indonesia may have more than one type of boundary with a particular neighbouring State. With Malaysia, for example, Indonesia needs to delimit boundaries with respect to the Territorial Sea (in the Malacca Strait), the EEZ and continental shelf (in Malacca Strait and Sulawesi Sea).

The present Chapter builds on the material covered in Chapters 3 detailing the evolution of Indonesia's claims to baselines and maritime zones (Chapter 3). Indonesia has ten potential neighbours with which Indonesia needs to delimit its maritime boundaries. The neighbours are (from northwest in a clockwise manner) India, Thailand, Malaysia, Singapore, Vietnam, Philippines, Palau, Papua New Guinea (PNG), Australia and Timor-Leste.

In so doing this chapter aims to provide a systematic inventory and critical analysis of Indonesia's maritime boundaries with its neighbours by focusing on agreed maritime boundaries. Up to October 2013 Indonesia had agreed 17 maritime boundaries with its neighbours. All of these 17 agreements had been concluded with seven neighbouring States namely, India, Thailand, Malaysia, Singapore, Vietnam, Papua New Guinea (PNG and Australia. The following subsections discuss Indonesia's maritime boundaries with each of these States according to their geographical position, starting from India in the northwest and proceeding in a clockwise manner.

This chapter does not only list agreed Indonesia's maritime boundaries but also analyses issues and problems regarding the agreed boundaries. This is done to draw relevant lessons from settled maritime boundaries and how they can be implemented in settling pending maritime boundaries. To do so, a systematic study on agreements through authentic/official agreement documents and scholarly-published works has been done.

In addition to detailed and critical discussion agreed maritime boundaries this chapter is aimed at analysing that agreed maritime boundaries are not the end of the story and that they are only starting point for boundary administration and ocean governance.

4.2 Indonesia-India

Indonesia and India have concluded three maritime boundary agreements since 1974. The first agreement was signed in Jakarta on 8 August 1974 concerning the delimitation of their continental shelf in the Great Channel between Sumatra and Nicobar Islands in the Andaman Sea.[626] The agreement was ratified by Indonesia through a Presidential Decree No. 31/1974.[627] India also ratified the agreement in 1974 and both exchanged the ratifications and the agreement came into force on 17 December 1974.[628] The boundary comprises four points which are equidistant from the nearest basepoints in Nicobar Islands of India and Pulau Rondo and Pulau Benggala of Indonesia. The boundary line so defined is a relatively short segment of maritime boundary, only 48 nautical miles in length.[629] In fixing the boundary line, all insular features were taken into consideration.[630] This also confirms that only coastlines, rather than size of landmass, were considered as being relevant to the delimitation. Thus, the fact that Sumatra is around 57 times greater than the total area of Andaman and Nicobar Islands does not seem to have a bearing on the course of the delimitation line.[631]

The second agreement between Indonesia and India was signed in New Delhi on 14 January 1977 and serves to extend the boundary segment agreed in 1974 and was ratified by Indonesia through the Presidential Decree No. 26/1977.[632] The agreement entered into force on 22 December 1980 after an exchange of ratifications between Indonesia and India.[633] This agreement consists of two segments, one to the northeast and one to the southwest, of the existing terminal points of the 1974 boundary line;

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[626] See, Prescott, JRV., (1993), "India-Indonesia", in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1363-1370, Martinus Nijhoff Publishers, the Netherlands.
[627] Oegroseno, 2009, see above note 2, pp. 49-58.
[628] The Geographer, (1975), "Continental Shelf Boundary: India-Indonesia", Limits in the Seas No. 62 – 25 August 1975, p.1.
[629] Forbes, V. L. 1995, see above note 85, p. 35.
[630] Prescott, JRV., (1993), "India-Indonesia", *op cit,* p. 1365.
[631] Prescott, JRV., (1993), "India-Indonesia", *op cit,* p. 1264.
[632] See above note 627, p. 54.
[633] Registration to the United Nations number 19475 on 22 December 1980. See, Maritime Space: Maritime Zones and Maritime Delimitation – India, available at, <http://www.un.org/depts/los/LEGISLATIONANDTREATIES/STATEFILES/IND.htm>, accessed on 28 May 2013.

point 1 and 4, respectively.[634] The north-eastern segment is around 86 nautical miles in length, while the south western segment is almost double the length of the north eastern segment, which is 160 nautical miles.[635] With this second agreement, the total length of Indonesia-India continental shelf boundary line is about 294 nautical miles. The north eastern terminal point of the boundary line is close to the terminal point of the previously agreed line between Indonesia and Thailand. Accordingly, the continental shelf line of Indonesia-India and Indonesia-Thailand terminate at points that relatively close each other. This means that there is still gap between them that need to be taken care of through a tripoint agreement.

Similar to the 1974 agreement, the 1977 agreement seems to use the equidistant method in constructing the boundary line. However, the line does not seem to be a strict equidistant line but a simplified one since it would have had more turning points had the former option been taken.[636] This is indicated by the naming of point K, N and O, which suggests that two other points, L and M, may have been defined in the negotiation/drafting stage but then been discarded in the final agreement to simplify the line.[637]

The third maritime boundary agreement involving Indonesia and India is a trilateral agreement which also involves Thailand. The agreement is to define the trijunction point, a common point where continental shelf boundaries of Indonesia-India, Indonesia-Thailand India-Thailand meet (see more on Indonesia-Thailand in section 4.3). This agreement was designed to close the previously-mentioned gap between the three continental shelf lines. It was signed in New Delhi on 22 June 1978 and was ratified by Indonesia through a Presidential Decree No. 24/1978.[638] The agreement entered into force entry on 2 March 1979 after an exchange of ratifications between Indonesia and India.[639] In addition to defining the trijunction point, the third agreement also establishes short segment lines from the existing terminal points of the Indonesia-India, Indonesia-Thailand and India-Thailand to the agreed three junction point. Figure

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[634] See above note 629, p. 35
[635] Prescott, JRV. (1993), "India-Indonesia", *op cit,* p. 1371 provides a slightly different dimensions: 86.7 nautical miles for the north east segment and 183 nautical miles for the south western one. These differences might be caused by the use of different map and method in performing measurement.
[636] Prescott, JRV. (1993), "India-Indonesia", *op cit,* p. 1373.
[637] *Ibid.*
[638] See above note 627, p. 54
[639] Registration to the United Nations number 19476 on 22 December 1980. See, Maritime Space: Maritime Zones and Maritime Delimitation – India, *op cit.*

4.1 illustrates the continental shelf boundary between Indonesia and India in the Andaman Sea and Indian Ocean.

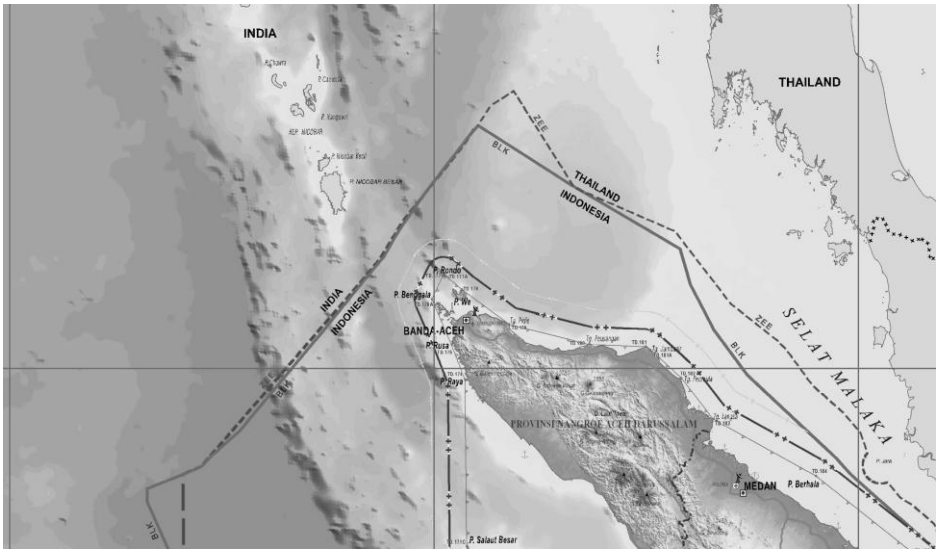

Figure 4.1 Continental Shelf Boundary between Indonesia, India and Thailand[640]

Another important aspect about Indonesia-India maritime boundaries is technical aspect. The charts used in the three agreements do not specify any geodetic datum. The type of straight line (geodesic or rhumb line)[641] joining those agreed points are not specified either. In addition they do not either mention projection system used for the coordinates. Consequently, the boundary lines exist only on chart, the actual position of which still needs to be defined. For this purpose, the agreements specify that the method will be agreed by competent authorities in both States. Failure to define actual points and line specified in the agreement may cause problem in the implementation. For example, the actual dimension of the continental shelf of each States cannot be defined if actual boundary lines are not defined on the field. This consequently can bring difficulties and also disputes in the utilisation of seabed natural resources.

Being a continental shelf boundary, those lines agreed in the aforementioned three agreements delimit only seabed but not the water column superjacent to it. This is understandable since the concept of EEZ had not yet been recognised when the three agreements were signed. Since 1982, EEZ regime has entered the arena of the law of the

[640] Bakosurtanal, The National Map of the Unitary States of Indonesia [*Peta Negara Kesatuan Republik Indonesia*] (hereinafter referred to as *Peta NKRI*), 2013, Cibinong, Indonesia. This map has been regularly updated and published every year. The term used for this Indonesian official map is Peta NKRI followed by the year a particular Peta NKRI was published. At the time of writing, November 2013, the latest version of Peta NKRI is the 2013 edition published on the commemoration of Indonesia's 68th Independence Day.

[641] For explanation of the technical aspects of straight line, see Chapter 2 of this thesis.

sea and became one of the maritime jurisdictions a coastal State may claim.[642] Accordingly, Indonesia and India still need to agree upon EEZ boundary dealing with water column. Even though not explicitly mentioned in the existing agreement, both States, at some stages, agreed to use the existing boundary line (seabed boundary) for their EEZ boundary.[643] *Peta NKRI*[644] reveals that Indonesia claims/proposes a different EEZ line in the Andaman Sea from the existing continental shelf line. There is one claimed EEZ segment, which does not coincide with the seabed line. With this, Indonesia claims larger EEZ beyond the existing continental shelf boundary line (see Figure 4.1). It seems that this claimed EEZ boundary line has been constructed by the method of equidistance between Indonesia and India.

4.3 Indonesia-Thailand

Indonesia and Thailand have signed four maritime boundary agreements including two trilateral agreements. One trilateral agreement involves India (see section 4.2) and another one involves Malaysia (see also section 4.4). Those four agreements were concluded in the 1970s when EEZ rights had not yet officially been recognised by the international community. Consequently, those agreements concern the delimitation line for the seabed alone while the water column boundary remains undelimited.

The first agreement was signed in Bangkok on 17 December 1971 concerning the delimitation of a continental shelf boundary in the northern part of the Malacca Strait and in the Andaman Sea.[645] This agreement was ratified by Indonesia through Presidential Decree No. 21/1972.[646] The agreement entered into forced on entry into force on 7 April 1973 after an exchange of ratification between Indonesia and Thailand.[647] The boundary line consists of two points, unsurprisingly termed Points 1 and 2, which when joined form a straight line of 89 nautical miles in length. These two points were both equidistant from relevant basepoints of Indonesia and Thailand. In this

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[642] Indonesia claimed EEZ at the first time in 1983, one year after the LOSC was concluded in Montego Bay, Jamaica. through Act No. 5/1983.
[643] See above note 626, p. 1364.
[644] *Peta NKRI*, see above note 640.
[645] See above note 627, p. 54.
[646] For a complete documentation of the agreement, *see*, Prescott, JRV., (1993), "Indonesia- Thailand (Malacca Strait and Andaman Sea)" in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1445-1463, Martinus Nijhoff Publishers, the Netherlands
[647] The registration to the United Nations number 16929 on 8 September 1978. See, Maritime Space: Maritime Zones and Maritime Delimitation – Thailand, available at, <http://www.un.org/depts/los/LEGISLATIONANDTREATIES/STATEFILES/THA.htm>, accessed on 29 May 2013.

case, Indonesia uses three basepoints: one on Tanjung Pidie and one on Tanjung Jambu Air and one on the northern tip of Pulau Weh (see Figure 4.1). Meanwhile, only one basepoint on the side of Thailand is used, namely Ko Racha Noi.[648] It is worth nothing that even though Indonesia had designated its archipelagic baselines[649] and Thailand had also proclaimed its straight baselines,[650] only basepoints on the low water mark were considered in constructing the boundary line. In other words, point 1 and 2 are equidistant from basepoints on the normal, low-water lines of Indonesia and Thailand but not from their claimed straight or archipelagic baselines.

Geospatial assessment of the maritime boundary line agreed between Indonesia and Thailand in 1971 suggests that, even though point 1 and 2 are equidistant from Indonesia and Thailand, the line joining the two does not follow the strict equidistant line between the two neighbouring States.[651] This is due to the fact that points 1 and 2 are constructed using specific basepoints as noted above. The line joining points 1 and 2 therefore does not reflect strict equidistance taking into account the influence of the intervening coastlines of either party and, particularly, the claimed straight/archipelagic baselines of the two States. In addition, the agreed boundary line does not necessarily serve as a final/permanent limit/fence when it comes to seabed resources exploitation. The agreement states that if there exist natural resources structure across the boundary line and that "part of such structure which is situated on one side of the said line is exploitable, wholly or in part, from the other side of the line, the two governments shall seek to reach agreement" to effectively exploit the structure.[652] This is, however, not uncommon in maritime boundary agreement where a boundary line does not prevent two adjacent or opposite States from collaboratively utilising resources found around border areas.

The second agreement between Indonesia and Thailand was signed on 21 December 1971, four days after the first agreement was concluded. This second agreement is a trilateral one involving Malaysia to define a three-junction point or tripoint among the

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[648] Prescott, JRV., (1993), "Indonesia-Thailand", *op cit,* p. 1457.
[649] For a comprehensive analysis on Indonesia's archipelagic baselines, see Chapter 2 of this thesis.
[650] Thailand had claimed a reasonably modest straight baseline because some segments of the line lay landward of some small island in its vicinity. See, The Geographer, (2000), Straight Baseline Claim: Thailand, Limits in the Seas No. 122 – 8 September 2000.
[651] Prescott, JRV., (1993), "Indonesia-Thailand", *op cit,* p. 1461
[652] Agreement between the Government of the Kingdom of Thailand and the Government of the Republic of Indonesia relating to the delimitation of a continental shelf boundary between the two countries in the northern part of the Malacca Strait and in the Andaman Sea (17 December 1971), Article II.

three States. The agreement is also designed to close the gaps between the two pre-existing continental shelf boundaries: Indonesia-Malaysia and Indonesia-Thailand and to establish a new continental shelf boundary between Thailand and Malaysia. This agreement was ratified by Indonesia through a Presidential Decree No. 20/1972.[653] The agreement entered into force on 16 July 1973 after an exchange of ratification among the three States.[654] The agreement specifies that the continental shelf of the three States should start from a trijunction point or a common point (5° 57.0' N, 98° 01.5'E).[655] Three boundary lines are defined starting from the common point. The first segment, serving as the Indonesia-Thailand continental shelf boundary, connects the common point with point 1 of the continental shelf boundary between Indonesia and Thailand signed on 17 December 1971. The second segment, serving as Indonesia-Malaysia continental shelf boundary, joins the common point with point 1 of the Indonesia-Malaysia continental shelf boundary signed in Kuala Lumpur on 27 October 1969. Finally, the third boundary line starts from the common point to point 1, 2 and 3 serving as the continental shelf boundary between Thailand and Malaysia. Figure 4.2 illustrates the trijunction point and continental shelf boundaries of Indonesia, Malaysia and Thailand.

The third agreement reached between Indonesia and Thailand was on the delimitation of seabed boundary in the Andaman Sea, signed in Jakarta on 11 December 1975. It took almost two years for Indonesia to ratify the agreement through a Presidential Decree No. 1/1977.[656] The agreement entered into force on entry into force on 18 February 1978 after an exchange of ratification between Indonesia and Thailand.[657] This agreement established a continental boundary segment continuing the partial continental shelf delimitation line that had previously been established in 1971. The new line heads northwestwardly forming one single line with an overall length of 75 nautical miles. Point 2 of the Indonesia-Thailand continental boundary signed on 17 December 1971 severs at the starting point of the 1975 boundary line. Interestingly, even though point 2 is equidistant from Indonesia and Thailand, the straight line lay on the Indonesian side

[653] See above note 627, p. 55.
[654] The Geographer, (1978), Maritime Boundaries: Indonesia-Malaysia-Thailand, Limits in the Seas No. 81, 27 December 1978, p. 2.
[655] Article 1 of the agreement.
[656] See above note 627, p. 54
[657] The registration to the United Nations number 16930 on 8 September 1978. See, Maritime Space: Maritime Zones and Maritime Delimitation – Thailand, *op cit.*

of a strict line of equidistance.[658] It is unclear, however, how the two States ended up agreeing on the line since the treaty does not include the rationale behind the line, which is not uncommon in a maritime boundary treaty. This is similar to a continental shelf boundary Indonesia agreed upon with Malaysia in 1969 (see section 4.4) and also a continental shelf boundary of Indonesia and Australia signed in 1972 (see section 4.8). Apparently, the seabed boundary was agreed by considering seabed geomorphology where the continental shelf adjacent to Indonesia is narrower than that adjoining Thailand. In addition, there is a broad depression between the two continental shelves, similar to the case of Indonesia and Australia in the Timor Sea.[659] This also suggests that the boundary delimitation does not use the method of equidistance.[660] This is understandable since the concept of continental shelf prior to the existence of LOSC heavily relied on concepts of natural prolongations with criteria such as the geomorphology of the seabed (that is, its shape) as well as exploitability factors and such factors, and not on the distance from baseline, proved influential in the construction of seabed delimitation lines at that stage in the evolution of ocean boundary making (see Chapter 2).[661]

The fourth maritime boundary agreed upon by Indonesia and Thailand is a trilateral continental shelf boundary involving India (see further about Indonesia-India in subsection 4.2). As previously mentioned, this agreement was intended to 'close the gaps' among three maritime boundaries: Indonesia-India, Indonesia-Thailand and Thailand-India. This was achieved by generating three short segments connecting each terminal point of the aforementioned continental shelf boundaries with an agreed trijunction or common point at coordinates of 07° 47' 00" N and 95° 31' 48" E. As explained previously, the Indonesia-India and Thailand-India[662] continental shelf boundaries are equidistant. However, the Indonesia-Thailand seabed boundary is predominantly not equidistant, such that the boundary line lies on the Indonesian side of

[658] Prescott, JRV, (1993), "Indonesia-Thailand (Andaman Sea)", in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1465-1472, Martinus Nijhoff Publishers, the Netherlands.
[659] Prescott, JRV, (1993), "Indonesia-Thailand (Andaman Sea)", *op cit*, p. 1465.
[660] Prescott, JRV, (1993), "Indonesia-Thailand (Andaman Sea)", *op cit*, p. 1468.
[661] Definition of continental shelf according to the 1958 Convention (Article 1) suggests that continental shelf refers "to the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 nautical miles or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas; (b) to the seabed and subsoil of similar submarine areas adjacent to the coasts of islands."
[662] India-Thailand seabed boundary was signed on 22 June 1978. *See*, Prescott, JRV., (1993), "India-Thailand" in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1433-1442, Martinus Nijhoff Publishers, the Netherlands.

the strict equidistant line. The Indonesia-India and Thailand-India seabed boundaries were therefore fixed by consideration of factors, while the Indonesia-Thailand one was established based on seabed geomorphology. Accordingly, the trijunction point was constructed by two major considerations: geography and geomorphology.[663]

In technical or geospatial perspective, the Indonesia-Thailand boundaries are similar to those established between Indonesia-India in terms of the use of charts. That is, they use British Admiralty Charts (BAC No. 830 for the 1975 agreement) which do not specify geodetic datum. In addition the agreements also contain similar provisions concerning the actual position of boundary lines in the field. They require the technicalities of the actual definition of the lines to be conducted by technical authorities. For Indonesia, for example, the relevant party is the head of the institution that deals with national surveys and mapping (Bakosurtanal, currently BIG). This realisation of lines in the field will not be straight forward because of, among others, the absence of geodetic datum.

Another issue, similar to Indonesia-India boundaries, is the need to delimit EEZ boundaries between Indonesia and Thailand. As of the time of writing (October 2013), Indonesia and Thailand have yet to delimit their EEZ. However, Indonesia has issued the latest map of the Republic of Indonesia, which also depicts its claimed EEZ in the relevant area.[664] Indonesia's EEZ claim line lies significantly beyond, that is to the north and east, of the existing seabed boundary. A rigorous geospatial/geodetically robust analysis of the Indonesian EEZ claim line reveals that the claimed EEZ line has been constructed using strict equidistance. Since the Indonesia-Thailand seabed boundary lies on the Indonesian side of the strict equidistance, the proposed EEZ line accordingly lies significantly to the north-eastward of the seabed boundary. It can be suggested with confidence that this is going to be Indonesia's forward position in negotiating EEZ boundary with Thailand in the future.

[663] Prescott, JRV., (1993), "India-Indonesia-Thailand", in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1379-1388, Martinus Nijhoff Publishers, the Netherlands.
[664] *Peta NKRI*, see above note 640.

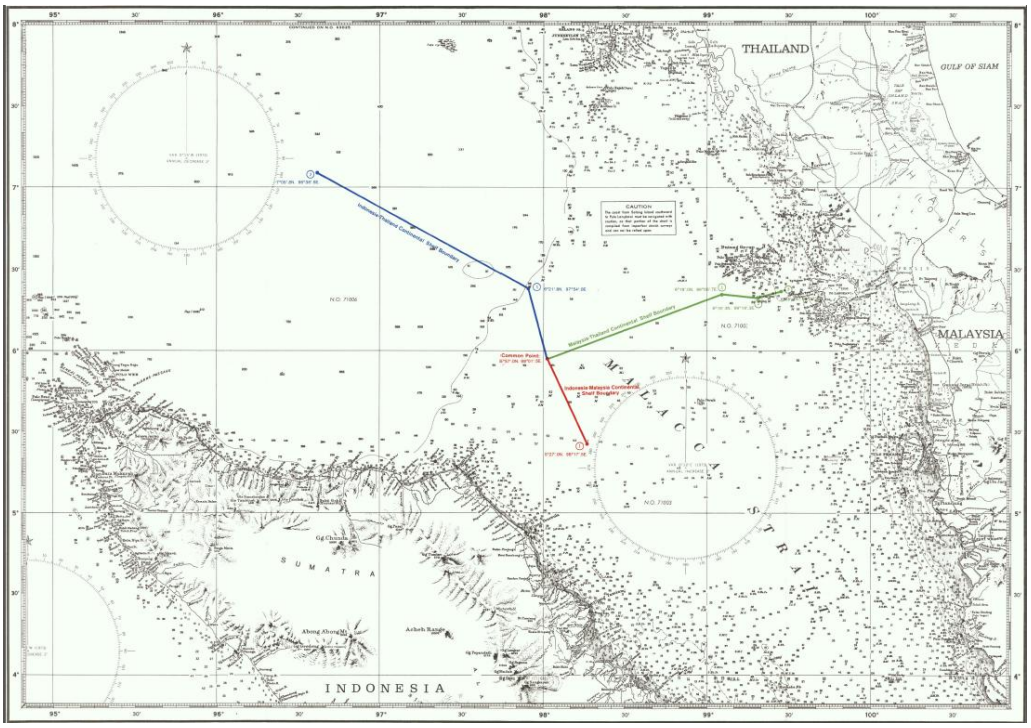

Figure 4.2 Continental Shelf Boundary between Indonesia and Thailand[665]

4.4 Indonesia-Malaysia

Among the multiple maritime boundary-related issues facing Indonesia, those involving Malaysia may be considered to be the most attention-grabbing and contentious. Issues regarding maritime boundary disputes between Indonesia and Malaysia have regularly occurred in recent years, have been frequently covered in the Indonesian press and have coloured bilateral relations and perceptions, especially at the popular level. The case of Pulau Sipadan and Pulau Ligitan, involving as it did sovereignty over these islands rather than being specifically related to maritime boundary delimitation, is perhaps the most infamous issue from an Indonesian perspective and has become an important part of Indonesia's history in relation to sovereignty. Sovereignty over the two islands, Sipadan and Ligitan, was determined to rest with Malaysia by the International Court of Justice (ICJ) through its decision of 17 December 2002.[666] This development led to issues relating to sovereignty and sovereign right regaining strong attention from the Indonesian people. Following the ICJ case, several other boundary-related issues have

[665] The Geographer, (1978), Maritime Boundaries: Indonesia-Malaysia-Thailand, *op cit*, p. 11.
[666] Sipadan and Ligitan Case, see above note 70.

arisen and to an extent coloured in the Indonesia-Malaysia bilateral relationship.[667] In short, the Indonesian people for their part, have generally become increasingly aware of and relatively sensitive when it comes to sovereignty and sovereign rights issues between Indonesia and Malaysia.

Notwithstanding the fact that Indonesia-Malaysia maritime boundaries have yet to be finalised, one segment of maritime boundary between the two States was the first one Indonesia signed with its neighbours. Indonesia and Malaysia signed an agreement on seabed boundary in the Malacca Strait and South China Sea on 27 October 1969.[668] It was ratified by Indonesia through the Presidential Decree No. 86 of 1969[669] and entered into force after an exchange of ratifications between Indonesia and Malaysia on 7 November 1969.[670]

The agreement defines three line segments. The first one is in the Malacca Strait between Malaysian peninsula and Indonesia's Sumatra as illustrated in Figure 4.3. This segment is a median line consisting of ten points (Point 1-10) with a length of about 339 nautical miles.[671] In 1971, a short segment line was extended from Point 1 of this agreement to a point called "Common Point" serving as a trijunction point of Indonesia-Thailand-Malaysia seabed boundaries (see section 4.3). By plotting this boundary segment on the United States Naval Oceanographic Chart No. H.O. 5591, it is identified that the line has been drawn for a seabed area with a maximum depth of less than 100.6 m (55 fathoms).[672] The average distance between points along the segment and the closest point on Indonesia and Malaysia's baselines is around 17.9 nautical miles.[673]

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[667] There have been several issues between Indonesia and Malaysia due to the absence/uncertainty of maritime boundaries. The case of Ambalat block dispute (2005, 2009, see Chapter 6), incidents in Tanjung Berakit (2010, see chapter 7), and incidents in the Malacca Strait (2011, see chapter 6) are three prominent examples illustrating how relationship between the two States is prone to maritime boundary-related tension.

[668] For a complete documentation of the agreement, see, Park, Choon-ho., (1993), Indonesia- Malaysia (Continental Shelf) in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1025-1027, Martinus Nijhoff Publisher, the Netherlands.

[669] See above note 627, p. 55.

[670] The Geographer, (1970), Indonesia – Malaysia Continental Shelf Boundary, Limits in the Seas No. 1, 21January 1970, p. 1.

[671] Park, Choon-ho., (1993), *op. cit.* p. 1019. Forbes conducted spatial analysis on the boundary and found that the total length of the firs segment is 400.8 nautical miles. *See*, Forbes, V. L. 1995, see above note 85, p. 22.

[672] The Geographer, (1970), *op cit*, p. 4. This publication uses fathom as depth unit where 1 fathom = 1.8288 metres.

[673] The Geographer, (1970), *op cit*,

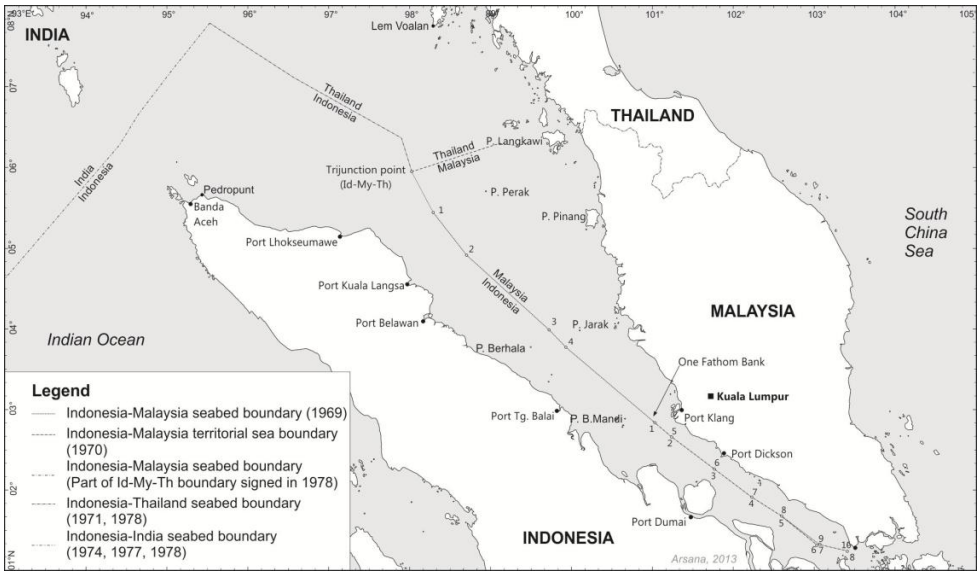

Figure 4.3 Seabed Boundary between Indonesia and Malaysia in the Malacca Strait[674]

The second line segment is also a median line between the Indonesian and Malaysian straight baselines, delimiting the seabed between Malaysian peninsula and Indonesia's islands in the South China Sea. This segment, as illustrated in Figure 4.4, also consists of ten turning points (Point 11-20) with a length of around 310 nautical miles.[675] The line starts at Point 11 (104° 29'.5 N 01° 23'.9 E) located at the eastern margin of the Singapore Strait, and extends to Point 20 in the South China Sea. The average distance of the midpoints of this second segment are about 67 nautical miles from the baselines of the two States. The deepest point along the segment is 78.6 m with the average depth at the mid-points is 57.6 m. The plotting of Point 11 on the British Admiralty Chart No. 3831 shows that the distance between Point 11 and the closest point of Pedra Branca[676] is only 6.8 nautical miles.[677] Accordingly, the continental shelf boundary line delimited between Indonesia and Malaysia extends deep into the potential 12 nautical miles territorial sea, pursuant to the LOSC, generated from Pedra Branca.[678] However, the agreement was signed when the territorial sea claim was only 3 nautical miles from baselines so that a 6.8 nautical miles distance was considered as sufficient for Pedra

[674] Illustration by the author.
[675] The Geographer, (1970), *op cit*, p. 5. An observation by Forbes found that the total length is 317.2 M: *See*, Forbes, V. L. 1995, see above note 85, p. 22.
[676] Pedra Branca is a rock/island which was being disputed by Malaysia and Singapore by the time of the signatory of the 1969 continental shelf boundary agreement between Indonesia and Malaysia.
[677] United Kingdom British Admiralty Chart BA3831, Singapore Strait Eastern Part, at a scale of 1:75,000 at latitude 1◦15 North, 10th edition. (30 September 2004).
[678] *See*, Beckman, Robert and Schofield, Clive (2009) 'Moving Beyond Disputes Over Island Sovereignty: ICJ Decision Sets Stage for Maritime Boundary Delimitation in the Singapore Strait', Ocean Development & International Law,40:1,1 — 35.

Branca to claim its territorial sea. Since the 12-nautical mile territorial seas have now become commonplace and are, in fact claimed by all of the three States – Indonesia, Malaysia and Singapore – present in the delimitation picture at the eastern end of the Singapore Straits, the delimitation of a bilateral (Indonesia-Malaysia) continental shelf in such close proximity to the coast of third State (Singapore) appears to be a complicating factor in finalising the delimitation of maritime boundaries in this area (see Chapter 6). The terminal point of this segment, Point 20, is equidistant from Malaysia, Indonesia and South Vietnam.[679]

The third segment of the 1969 continental shelf boundary between Indonesia and Malaysia consists of five turning points (21-25). It started from the terminal point of Indonesia-Malaysia land boundary at Tanjung Datu. Unlike the other two segments, this third segment does not seem to be based on equidistant line between Indonesia and Malaysia's baselines. The seabed boundary lies well to the west of the equidistance line between the two States, to Malaysia's advantage. If the seabed boundary were delimitated using equidistance principle, Indonesia could potentially claim "extra" area beyond the current seabed boundary up to the equidistance line amounts to approximately 24,000 square km.[680] Even though there has been no official statement released by the Indonesian government, it was believed that Indonesia accepted the non-equidistant line because Indonesia was seeking support from Malaysia for its proposal concerning archipelagic states claims.[681] This third segment is about 264 nautical miles in length from Point 21 to 25. Point 25 is located at the deepest point, nearly 200 nautical miles from the water surface, of the entire agreement.

[679] The Geographer, (1970) , *op. cit.*, p. 5

[680] Arsana, IMA. And Schofield, C.H., (2006), Gosong Niger: Another Ambalat?, The Jakarta Post, 16 March 2006, Jakarta. Accessed on 20 March 2010 from <http://www.thejakartapost.com/news/2006/03/16/gosong-niger-another-ambalat.html>. The analysis was conducted using public-domain data, world vector shoreline (WVS) with CARIS LOTS™ as an assisting tool.

[681] Park, Choon-ho., (1993), Indonesia- Malaysia (Continental Shelf), *op. cit., p.* 1022.

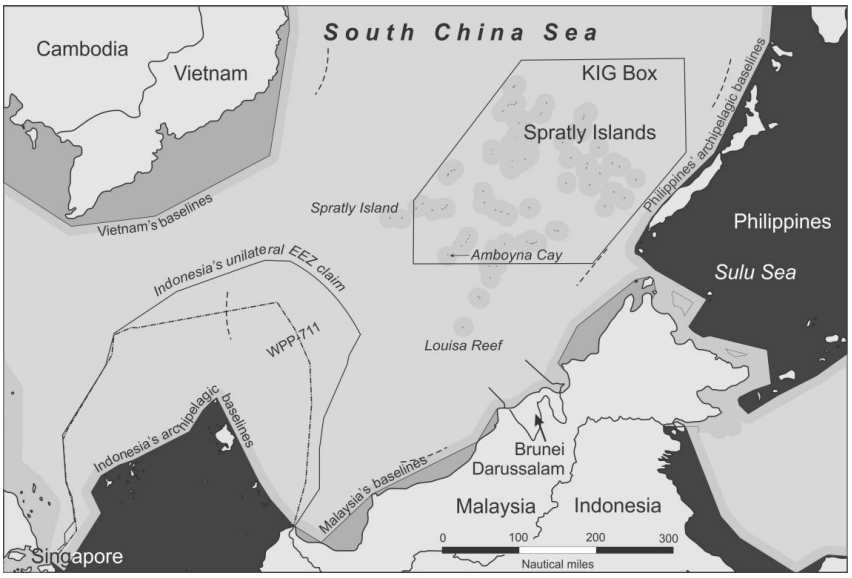

Figure 4.4 Seabed Boundary between Malaysia and Indonesia in the South China Sea[682]

In general, it is understood that the aforementioned continental shelf boundary between Indonesia and Malaysia may have been motivated by economic considerations in relation to the exploration and exploitation of seabed resources. However, such economic considerations do not seem to directly affect the location of the agreed boundary line.[683] Reasonably further apparently influential factor was the political situation at that time in which Indonesia was devoting its energy for the recognition of its archipelagic State status. Similarly, Malaysia was also in the process of asserting its maritime jurisdiction, "partly motivated by developments from without."[684] Accordingly, the political factors at that time affected not only the location of the agreed boundaries but also the time of their conclusion.[685]

It is clear from the aforementioned discussion that the deepest seabed location involved in the 1969 agreement is less than 200 nautical miles. Considering that the definition of continental shelf at that time, which was based on the 1958 Convention on the Continental Shelf,[686] it does not seem that geological and geomorphological factors were adequately considered. Similarly, geographical factors did not seem to be taken into account. The two first lines are simply equidistance lines constructed using relevant baselines of the two States. While the third segment may not be considered as

[682] Illustration by the author.
[683] Park, Choon-ho., (1993), Indonesia- Malaysia (Continental Shelf), *op. cit.*, p. 1021.
[684] Park, Choon-ho., (1993), Indonesia- Malaysia (Continental Shelf), *op. cit.*, p. 1020.
[685] *Ibid.*
[686] Article 1 of the 1958 Convention on the Continental Shelf.

equidistant, it does not represent any particular consideration of geographical factors.[687] With regard to the use of baselines, it is clear that Indonesia, at that time, had designated its archipelagic baselines. However, Malaysia's were only inferred.[688] With Malaysia's inferred baselines, it can also be noted that the baselines of both sides apparently did not influence the location of the line. As previously stated, geographic factors, i.e. coastlines including any straight/archipelagic baselines fronting them were not relevant to construction of the line. It is safe, therefore, to say that boundary line between Indonesia and Malaysia is a negotiated solution.

The second agreement between Indonesia and Malaysia is the territorial sea boundary signed on 17 March 1970 in Kuala Lumpur.[689] The treaty is on the delimitation of territorial sea boundary in the Malacca Strait, ratified by Indonesia through Act Number 2 of 1971.[690] It entered into force on after an exchange of ratification between Indonesia and Malaysia on 10 March 1971.[691] The line consists of two terminal points and six turning points, making up eight segments of around 174 nautical miles in total.[692] However, point 6 agreed in the treaty "shall not apply to Malaysia"[693] since it lies beyond Malaysia's claim of territorial sea. Accordingly, for the Malaysia's side, there are only seven segments of boundary lines with one segment connecting point 5 to 7 forming a segment of 39.0 nautical miles.[694] Since Indonesia and Malaysia both claim a 12-nautical mile territorial sea at that time, there is a small area beyond Indonesia and Malaysia's territorial sea limits. This relatively-small triangle area was termed as "high seas", formed by point 5, 6 and seven agreed in the treaty.[695] By the ratification of LOSC by Indonesia and Malaysia, both are now entitled to EEZ. Accordingly, the relatively small triangle, which was previously termed as high seas, is no longer high seas, but contiguous zone or EEZ. Consequently, this area, which accounts

[687] Park, Choon-ho., (1993), Indonesia- Malaysia (Continental Shelf), *op. cit.*, p. 1021.
[688] Forbes, V. L. 1995, see above note 85, p. 22.
[689] See above note 627, p. 55.
[690] For a complete documentation of the Treaty between the Republic of Indonesia and Malaysia on Determination of Boundary Lines of Territorial Waters of the two Nations at the Malacca Strait, see The Geographer, (1973), Indonesia – Malaysia Territorial Sea Boundary, Limits in the Seas No. 50.
[691] The Geographer, (1973), *op cit*, p. 2.
[692] Forbes, V. L. 1995, see above note 85, p. 22.
[693] Indonesia – Malaysia Territorial Sea Boundary, Article 2 (b), *Ibid.*, p. 1.
[694] The Geographer, (1973), *op cit*, p. 3.
[695] When the treaty was agreed upon by Indonesia and Malaysia, the concept of contiguous zone and EEZ had not yet in place. Accordingly, water area beyond 12 nautical miles from baselines is termed as "high seas". *Ibid.*, p. 3.

approximately 25 nautical miles square,[696] is now subject to delimitation between Indonesia and Malaysia. It is intriguing to observe that such oddity occurred between Indonesia and Malaysia. Unfortunately, this is not enough information to explain why this happened.[697]

In comparison to the seabed boundaries between Indonesia and Malaysia agreed in 1969, the 1970 territorial sea boundary employs many turning points that coincide with those in the 1969 boundary treaty, with exceptions to point 1 and 6. As previously mentioned, point 6 is applicable only to Indonesia's territorial sea limits, while point 1 lies on a segment of the 1970 seabed boundaries but does not coincide with any turning point of the 1969 seabed boundaries.[698] Having observed that the two boundary lines are nearly coincident, it logically follows that in fact the considerations relevant to the delimitation of both boundaries were analogous. As mentioned in article I of the 1970 treaty, the boundary "shall be at the centre drawn from base lines" of Indonesia and Malaysia. This confirms that the median line method was employed in the delimitation of the boundary. In addition, it does not seem that there is a particular/special consideration of geography, geology, and economy in the delimitation process.[699]

It is intriguing to observe that the territorial sea boundary is defined to be in nearly coincident with the seabed boundary line that is previously defined. In a water area with a distance of less than 24 nautical miles from each baseline, two opposite States, which both claim a 12-nautical-mile territorial sea, "would more likely" delimit their territorial sea.[700] In addition, once the territorial sea boundary has been delimited, the two opposite States would not be required to delimit their seabed boundary in the same area since the territorial sea boundary also covers seabed, water column and airspace above it. However, this was not the case with Indonesia and Malaysia. The key reason for this apparently strange development, which is of continental shelf delimitation predating territorial sea delimitation, is that the exploitation of seabed resources represented a

[696] The area was calculated using the three coordinates of point 5, 6 and 7 utilising the area calculator in Google Maps.
[697] Information on this issue is not available and it also becomes unclear to the current members of Indonesia's maritime boundaries negotiating team. Relevant information may be available but it is so far inaccessible to the current team members. Personal Communication with Arif Havas Oegroseno on October 2010. He was the Chief of Indonesia's delegation for maritime boundary negotiation. At the time of writing, Mr. Oegroseno was the Indonesian Abassador to Belgium.
[698] Indonesia – Malaysia Territorial Sea Boundary, Article 2 (b), *op. cit.*, p. 3
[699] Park, Choon-ho., 1993, Indonesia-Malaysia (Territorial Sea) in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1027-1037, Martinus Nijhoff Publisher, the Netherlands.
[700] Park, Indonesia-Malaysia (Territorial Sea), *Ibid.*, p. 1032.

potent driving motivation and priority for the parties. This is the reason why seabed boundaries were delimited prior to territorial sea.[701]

4.5 Indonesia-Singapore

Indonesia and Singapore agreed on their first territorial sea boundary on 25 March 1973.[702] The treaty generates a relatively short segment of territorial sea boundary in the Singapore Strait that consists of two terminal points and four turning points as illustrated in Figure 4.5. The total six points form a segment line of around 24.55 nautical miles with average length of segments between the turning points is 4.911 nautical miles.[703] The shortest segment is 1.35 M, while the longest one is 9.85 nautical miles with water depths range from 12 to 25 fathoms.[704] Point 1 serves as the starting point at the western tip of the line, while point 6 is the terminal point of the line at its eastern tip. The agreement was ratified by Indonesia on 3 December 1973 through the Act Number 77 of 1973,[705] while Singapore ratified the agreement on 29 August 1974.[706]

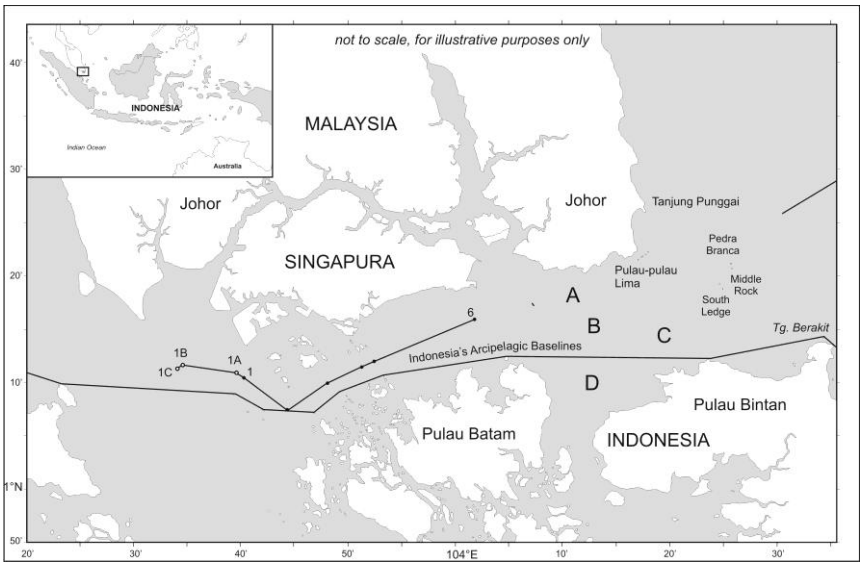

Figure 4.5 Territorial Sea Boundary between Indonesia and Singapore[707]

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[701] *Ibid.*, p. 1030.
[702] For a complete documentation of the "Agreement Stipulating the Territorial Sea Boundary Lines between Indonesia and the Republic of Singapore in the Singapore Strait", see The Geographer, (1974), Territorial Sea Boundary: Indonesia-Singapore, Limits in the Seas No. 60, 11 November 1974.
[703] The spatial analysis was conducted by The Geographer by plotting of the coordinates defined by the 1973 treaty on DMAHC Chart N.O. 71242, 17th ed., August 1963, revised October 21, 1970; See, The Geographer, (1974), *op cit*, p. 3.
[704] The Geographer, (1974), *op cit*, p. 3.
[705] See above note 627, p. 55; The Geographer, (1974), *op cit*, p. 2
[706] See above note 702, p. 2.
[707] Illustration by the author.

Part of the 1973 boundary line comprises an equidistance line from Indonesia's archipelagic baselines and Singapore's normal baselines, while some other part seems to depart from median line to the disadvantage of Indonesia.[708] For the delimitation, Indonesia employed straight archipelagic baselines while Singapore used normal baselines. Of particular note and surprisingly, one turning point of the boundary, point 2, lies on the Indonesian internal waters, around 0.5 nautical miles to the south of the closest Indonesia's basepoints.[709] At the time of the delimitation, Indonesia employed baselines based on the Act No. 4/Prp/1960, through which Indonesia designated its first archipelagic baselines.[710] The fact that point 2 is located inside Indonesia's archipelagic baselines system indicates that not all of Indonesia's baseline segments were given full consideration in the delimitation.[711] This oddity is intriguing and it gives an impression that Indonesia's archipelagic baselines were simply ignored in defining the location of point 2. This also explains that the absence of protest from State A regarding archipelagic or straight baselines declaration by State B, for example, does not guarantee that State A will accept the employment of the archipelagic/straight baselines in maritime boundary delimitation between them. However, through PP Number 38 of 2002 the archipelagic baselines of Indonesia has been revised (see Chapter 2). The baselines have been shifted relatively significantly (approximately 0.5 nautical mile) southward so that point 2 of the 1973 treaty is no longer located inside Indonesia's archipelagic baselines system (see Figure 4.5).

Technical issues regarding the Indonesia-Singapore 1973 territorial sea boundary primarily concern the geodetic datum employed or, indeed, not employed. It is worth noting that the treaty does not specify geodetic datum. A geodetic datum is a reference onto which coordinates of position are expressed, without which, coordinates of boundary points (latitudes and longitudes) is meaningless (see Chapter 2).[712] Without reference to a specific geodetic datum, it is not possible to define the actual location of the boundary points defined by the coordinates listed in the delimitation treaty. The same coordinates (latitude and longitude) with different geodetic datum may refer to

[708] Park, Choon-ho., (1993), "Indonesia- Singapore" in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, p. 1049, Martinus Nijhoff Publisher, the Netherlands.
[709] Park, Choon-ho., (1993), Indonesia- Singapore, *op. cit.*,
[710] Indonesia, *Act No.4 of the President of the Indonesian Republic*. Reproduced in *The Geographer*, United States Department of State, 'Straight Baselines: Indonesia', Limits in the Seas, No 35 (1971), Washington DC, 2-4.
[711] Park, Choon-ho., (1993), Indonesia- Singapore, *op. cit.*, p. 1051
[712] See, Abidin, H. Z. et al. 2005, see above note 72.

different actual position on the surface of the Earth. Similarly, different coordinates which are referenced on different geodetic datum may refer to the same location on the surface of the Earth. Failure to define a specific datum can bring difficulties in law enforcement. For instance, the absence of geodetic datum in a maritime boundary treaty will make border patrol teams unable to locate actual boundary lines in the field with the required level of certainty to facilitate their activities. In particular, it is impossible for the surveillance and enforcement authorities involved to judge whether or not a vessel/boat has committed offences by crossing into another State's waters.

The issue of which datum coordinates are referred to in the 1973 treaty was addressed subsequently. Technical teams from Indonesia and Singapore have achieved an agreement on how to technically deal with the geodetic datum issue.[713] At a technical level, an agreement has been achieved between the two States on how the coordinates in the 1973 treaty are transformed into new coordinates with WGS84 geodetic datum.[714] At the time of writing, information on the new technical agreement has been disseminated for further implementation.

The 1973 agreement left gaps at the western and eastern ends of the boundary line that needed and to an extent still need to be addressed. It was identified that one particular segment in the western side needed to be delimited, while two more segments in the eastern side require delimitation. The two segments are eastern segment 1 around Batam-Changi and eastern segment 2 around Bintan-South Ledge/Middle Rock/Pedra Branca.[715] The Indonesian Minister of Foreign Affairs stated in May 2010 that in the course of the negotiation process with Singapore, Indonesia's position was in accordance with three principles.[716] Firstly, LOSC is the main legal principle that Indonesia always referred to in the delimitation. Secondly, Indonesia refused to accept Singapore's altered and expanded coastline as the result of reclamation works. Instead, Indonesia only recognises Singapore's original baselines based on the "Original Digital Cartometry Chart" of 1969. Thirdly, Indonesia would utilise basepoints at Pulau Nipa

[713] Rimayanti, A. and Lokita, S. 2010, The Solution Method for the Problem of the Geodetic Datum of the Territorial Sea Boundary Between the Republic of Indonesia and the Republic of Singapore. Proceeding of the XXIV FIG Congress, Sydney, 11-16 April.
[714] *Ibid.*
[715] MFA, 2009, Press Release: The Signing of The Treaty Between The Republic of Indonesia and The Republic of Singapore Relating to The Delimitation of The Territorial Seas In The Western Part of The Singapore Strait [hereinafter 2009 Indonesia-Singapore Treaty], Jakarta, 10 March. Available at <http://www.deplu.go.id/_layouts/mobile/PortalDetail-PressReleaseLike.aspx?l=en&ItemId=c148acb8-88c6-4e24-9dd3-352ec9cd90c2>.
[716] See above note 715

and a segment of archipelagic baselines connecting Pulau Nipa and Pulau Karimun Kecil. In line with Indonesia's principles, Singapore, through its foreign minister, stated that Singapore's reclamation works that had caused the change of baselines would not affect maritime boundary delimitation with Indonesia.[717] With regard to the Indonesian Ministry of Foreign Affairs, it is unclear, however, which 1969 chart was referred to and the chart is not mentioned in the 2009 treaty.

At the early stage of the negotiation, technical teams from both parties agreed on the method of delimitation and basepoints relevant to the construction of the boundary line. The technical teams agreed upon the use of Indonesia's basepoint at P. Nipa-Tuas and Singapore's basepoints located at Sultan Shoal, a relatively small feature of 9.8 square kilometres. After intensive discussions, both parties managed to reach an agreement on the use of equidistance principle pursuant to the LOSC and relevant jurisprudences in maritime delimitation. The use of Pulau Nipa in the delimitation can be seen as an achievement from Indonesia's perspective since the small island was previously threaten to submerge, thanks to extensive sand mining for export to Singapore.[718] The small island was saved by extensive reclamation works by the Indonesian government. In 2004, the then President Megawati visited the island to sign a plaque with an inscription stating "Defend it till the last drop of your blood" to reaffirm Indonesian sovereignty over the small island.[719] This action of saving Pulau Nipa by reclamation was viewed by Indonesians as a right step so that the small island was then rightfully considered in maritime delimitation between Indonesia and Singapore in 2009.

On 10 March 2009, after an approximately 5-year intensive negotiation (28 February 2005 to 10 March 2009),[720] Indonesia and Singapore signed a territorial sea boundary treaty in Jakarta.[721] The negotiation was concluded in 11 rounds of negotiation conducted in Indonesia and Singapore. In the Indonesian side, the delegation was composed by Ministry of Foreign Affairs, Ministry of Defence, Military Headquarter, Navy Headquarter, Navy Dishidros, and Bakosurtanal. The new agreement established a

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[717] Press Release, Singapore, Ministry of Foreign Affairs, *Singapore-Indonesia Maritime Boundaries Delimitation* (21 March 2007), *available at* <http://www.mfa.gov.sg/content/mfa/overseasmission/jakarta/press_statements_speeches_archives/2007/200703/press_200703_01.html>.
[718] C. Milton, (2010), The Sand Smuggler, Foreign Policy (4 August 2010), available at, <http://www.foreignpolicy.com/articles/2010/08/04/the_sand_smugglers>, accessed on 20 May 2013.
[719] Antara, Megawati Signs Plaque in Nipah Island, (20 February 2004), available at <http://www.accessmylibrary.com/coms2/summary_0286-20426871_ITM>, accessed on 30 May 2013.
[720] See above note 715.
[721] See above note 715.

short segment starting from point 1 of the 1973 agreement westward. The segment consists of four points in total where the point is coincident with point 1 of the 1973 agreement (see Figure 4.5).

The 2009 agreement includes, among others, accurate coordinates of four boundary points and line segments connecting those points delimiting territorial sea between Indonesia and Singapore. Unlike the 1973 agreement, the new agreement clearly specifies that coordinates of boundary points are determined using the World Geodetic System 1984 Datum (WGS84).[722] This, undoubtedly, can be viewed as advancement in term of technical aspects, since this will guarantee the definition of actual location of boundary points. Consequently, this certainty will facilitate the law enforcement with regard to border crossing. With certainty in the use of geodetic datum, now the use of navigational aid technology such as GPS can be optimised in justifying whether or not a vessel has committed border crossing.

After more than one year pending, Indonesia finally ratified the 2009 agreement with Singapore on 24 May 2010 and now the treaty has been available for public access.[723] The agreement entered into force on 30 August 2010 after an exchange of ratifications between Indonesia and Singapore.[724] For the purpose of this thesis, the coordinates of boundary turning points are also available for further analysis. The exchange of agreements between Indonesia and Singapore was conducted on 30 August 2010 at the Singaporean Ministry in Singapore.[725] Notwithstanding the fact that Singapore and Indonesia have made significant progress concerning maritime delimitation, more work needs to be completed. The two States need to collaborate with Malaysia to finalise maritime boundary delimitation for the two more segment (east segment 1 and 2) in the Singapore Strait. At a particular location the three neighbouring States also need to agree upon the location of common points or trijunction points.

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[722] 2009 Indonesia-Singapore Treaty, Article 1 (2). See also, Abidin, H. Z. et al, (2005), see above note 72*;* Rimayanti, A. and Lokita, S. (2010), *op cit.*; Arsana, I M. A. Yuniar, F. and Sumaryo, (2010), Geospatial Aspects of Maritime Boundary Delimitation in the Singapore Strait Involving Indonesia, Malaysia and Singapore. Proceeding of the XXIV FIG International Congress - Facing the Challenges, Building the Capacity, 11-16 April, Sydney.

[723] The treaty is published in the 75 Law of the Sea Bulletin, 21 (2011); UNTS (I-48026).

[724] Schofield, CH. McDorman, T. and Arsana, IMA. "Indonesia-Singapore [Report Number 5-11(2)] Treaty between the Republic of Indonesia and the Republic of Singapore relating to the Delimitation of the Territorial Sea of the two Countries in the Western Part of the Singapore Strait" in C. G. Lathrop (ed), *The International Maritime Boundaries (Vol.VI)* (2012) , p. 1.

[725] Ministry of Foreign Affairs, 2010, Indonesia and Singapore Exchange the Instruments of Ratification of the Treaty Relating to the Delimitation of the Territorial Seas. Available at <http://www.deplu.go.id/manila/Pages/News.aspx?IDP=3912&l=en>.

It is noted that two points (1B and 1C) of the 2009 agreement are located within Malaysia's claim through the 1979 Map (or Peta Baru) as illustrated in Figure 4.5. Even though Indonesia, in particular, does not recognise the 1979 Map, it will not be surprising that this can be a source of concern for Malaysia, and can eventually be an issue among the three States in their future negotiation on maritime boundaries, especially in defining a trijunction point around the area. However, at the time of writing (October 2013) there has been no official protest available in public from Malaysia to the 2009 Indonesia-Singapore agreement. How the three States will deal with the delimitation in the western part of Singapore Strait remains to be seen. For a more comprehensive analysis on the future delimitation in the eastern part of the Singapore Strait, see Chapter 7 of this thesis.

4.6 Indonesia-Vietnam

Indonesia-Vietnam continental shelf boundary is the first one Indonesia agreed with its neighbour in the 21st century. It was in 2003, six years after the signing of the EEZ boundary with Australia. This can be considered as the treaty with the longest negotiation. The negotiation officially commenced in 1978 and was concluded in 2003 or 25 years of negotiation.[726] The agreement with Vietnam was signed on 26 June 2003 and was ratified by Indonesia on 15 March 2007 through Act Number 18 of 2007.[727] The treaty entered into forced on 29 May 2007 after an exchange of ratification between Indonesia and Vietnam.[728] The 2003 treaty delimits continental shelf between Indonesia and Vietnam in the South China Sea by establishing four boundary turning points (H, H1, A4, and X1) as illustrated in Figure 4.6. The agreement also treats the already established points of Indonesia-Malaysia seabed boundary signed in 1969. Two points of the 1969 agreement, point 20 and 25, served as the terminal points of the boundary established in 2003. Accordingly, the agreement establishes five segments of boundary (i.e. 20-H, H-H1, H1-A4, A4-X1 and X1-25). Among those five segments, H-H1 is the shortest one with a length of approximately 7 nautical miles and the longest one is

[726] McDorman, T.L. and Schofield, C.H. (2011), "Indonesia-Vietnam, Report Number 5-27, Agreement between the Government of the Socialist Republic of Vietnam and the Republic of Indonesia concerning the Delimitation, of the Continental Shelf Boundary" [Indonesia-Vietnam 2003 Agreement] in Colson, D.A. and Smith, R.W. (eds), *International Maritime Boundaries* Volume VI, Martinus Nijhoff Publishers, The Netherlands, p. 4303.

[727] See above note 627, *op. cit*, p. 55. Full text of Act Number 18 of 1997 is available at <http://legislasi.mahkamahagung.go.id/docs/UU/2007/UU_NO_18_2007.pdf>. See also, McDorman, T.L. and Schofield, C.H. (2011), *op cit.*

[728] Registration to the United Nations number 44165 on 15 August 2007, see, Law of the Sea Bulletin No.67.

segment A4-X1, which is about 159 nautical miles long. Total length of the boundary line is around 250 nautical miles from point 20 to point 25.[729]

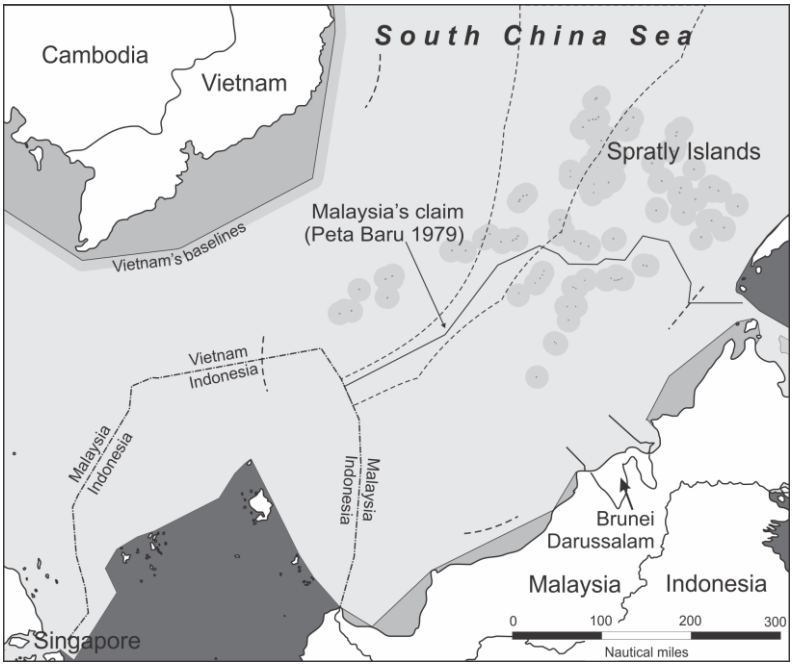

Figure 4.6 Seabed Boundary between Indonesia and Vietnam in the South China Sea[730]

It is worth noting that the 2003 agreement delimits only continental shelf between Indonesia and Vietnam but not the EEZ. Accordingly, water column in the area is subject to future delimitation between the two States (see below). It is apparent that the agreed continental shelf boundary line departs from equidistance line between the two States. Spatial analysis indicates that it in fact lies at the Indonesian side of the median line constructed from each State's baseline. In this case, median line has been constructed using Indonesia's archipelagic baselines and Vietnam's straight baseline connecting small islands in the vicinity of Vietnam's south coast.[731] However, apart from straight baselines depicted in its continental shelf submission, Vietnam has also officially declared the geographical coordinates of its basepoints along its south coast. In addition to a deposition it made in 2004 to the UN Secretary General consisting of 21

[729] Distances calculated were those along geodesic line using Vincenty distance formula. The formula calculates distance between two known point expressed in latitude and longitude in a WGS84 geodetic datum. For a comprehensive elaboration about the formula, *see*, Vincenty, T. 1975. *Direct and Inverse Solutions of Geodesics on the Ellipsoid with application of nested equations*. Survey Review XXII, 176, April. Available at <http://www.ngs.noaa.gov/PUBS_LIB/inverse.pdf>.

[730] Illustration by the author.

[731] Coordinates of the straight baselines of Vietnam were obtained from the "Statement of 12 November 1982 by the Government of the Socialist Republic of Vietnam on the Territorial Sea Baseline of Vietnam", available at, <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/VNM_1982_Statement.pdf>, accessed on 20 May 2010.

points constructing straight baselines along its east coast,[732] Vietnam also previously deposited coordinates of its straight baselines.[733] The United States, unsurprisingly, protested Vietnam's straight baselines by issuing an aide-memoire on 6 December 1982 and was rejected by Vietnam by similarly issuing an aide-memoire on 1 February 1983.[734] An analysis by The Geographer concludes that the baselines systems are not in compliance with relevant conventions, to which Vietnam is a party, such as the 1958 Geneva Convention. One particular point to note is that the baselines "do not closely follow the direction of the coastline" as required by the 1958 Geneva Contention.[735]

It is not easy to tell whether or not Vietnam's straight baselines along its south coast were significantly considered in the delimitation of continental shelf in 2003. However, as noted above, spatial analysis of the agreed boundary line indicates that it lies significantly south of theoretical median line median line between the two States, either constructed using Vietnam's straight baselines or normal baselines of its mainland. For example, there is an area of difference between the 2003 boundary line and the median line constructed using Vietnam's straight baselines and Indonesia's archipelagic baselines, which account for approximately 2,500 square nautical miles.[736]

As specified in the 2003 agreement, the straight lines connecting the turning points are geodetic lines (geodesic) and the geographical coordinates are computed on the World Geodetic System 1984 Datum (WGS84). The points and line are shown on the British Admiralty Chart No. 3482, with a scale of 1:1,500,000, published in 1997, which is attached to the agreement.[737] However, it is suggested that this cartographic attachment is for an illustrative purpose only. The actual location on the sea of the points and boundary line shall be defined by methods that are agreed upon by the competent authorities from the two States.[738] In this case, the National Coordinating Agency for

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[732] M.Z.N. 52. 2004. LOS of 9 December 2004: Deposit of the list of geographical coordinates of points, using the geodetic system ITRF-96, which are specified in the Agreement between the Socialist Republic of Vietnam and the People's Republic of China on the Delimitation of the Territorial Sea, the Exclusive Economic Zone and Continental Shelf in the Gulf of Tonkin, which was signed by the two countries on 25 December 2000, and took officially effect on 30 June 2004. Available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/mzn_s/mzn52.pdf>

[733] See above note 731.

[734] The Geographer, (1983) "Straight Baselines: Vietnam", Limits in the Sea No. 99 – 12 December 1983, p. 8.

[735] The Geographer, (1983), *op cit*, p. 13.

[736] The calculation was done using CARIS LOTS™ with World Vector Shoreline data, available as a public domain.

[737] Indonesia-Vietnam 2003 Agreement, Article 1 (2).

[738] Indonesia-Vietnam 2003 Agreement, Article 1 (3).

Surveys and Mapping (Bakosurtanal) and the Department of Survey and Mapping of the Ministry of Natural Resources and Environment will serve as those aforementioned competent authorities for Indonesia and Vietnam, respectively.[739]

It is interesting to note that even though this agreement is final and binding for Indonesia and Vietnam, the agreement provides particular provision concerning natural resources (for instance, seabed hydrocarbons). It states that if such resources found "beneath the seabed, extends across the boundary line" the two States "shall inform each other of all information concerned". They shall then establish an agreement on how to most effectively exploit the resources to achieve "equitable sharing of the benefits" for both parties.[740] It can be inferred that the current continental shelf boundary line does not necessarily serve as permanent line defining area of exploration and exploitation for Indonesia and Vietnam. The line may have established a permanent boundary of jurisdiction between the two States but the agreement leave a space for the two neighbours to collaborate for exploring and exploiting trans-boundary resources.

One important issue to note from Indonesia-Vietnam (and Malaysia) maritime boundaries in the South China Sea is that it potentially creates an overlapping area with Chinese claim. Even though there has been no geospatial/technical clarification on Chinese nine-dashed claim, it is relatively easy to tell the potential overlapping area. However, China, at the time of writing, has not yet protested the 2003 agreement, neither the one settled by Indonesia and Malaysia in 1969.[741] Politically, this 1969 and 2003 agreement may be seen as a strategic capital form Indonesia, Malaysia and Vietnam to face China in terms of maritime claims in the South China Sea. The success of the three States to agree upon maritime boundary may strengthen their position, should there be any dispute with China in the future.[742]

As mentioned previously, Indonesia and Vietnam, at the time of writing, have yet to define EEZ boundary between them in the South China Sea. This will apparently be the next step for both States in the near future. Indonesia, for its part has declared a unilateral claimed as a forward position for EEZ boundary. The line it claims, as

[739] Indonesia-Vietnam 2003 Agreement, Article 1 (4).
[740] Indonesia-Vietnam 2003 Agreement, Article 4.
[741] For a comprehensive analysis on the potential overlapping claim and boundaries between Indonesia and China, see, Arsana, IMA. and Schofield, C.H. (2012), "Indonesia's "Invisible" Border with China" in Elleman, B., Kotkin, K. and Schofield, C. (eds) Beijing's Power and China's Borders: Twenty Neighbors in Asia, M. E. Sharpe.
[742] See, McDorman, T.L. and Schofield, C.H. (2011), *op cit.* p. 4305.

depicted in its official map, lies quite significantly seaward compared to seabed (continental shelf) boundary agreed in 2003 (see Chapter 5).

4.7 Indonesia-Papua New Guinea

Only one agreement on maritime boundaries has been signed by Indonesia and Papua New Guinea (hereinafter referred to as PNG) since the independence of PNG in 1975. The agreement was signed in 1980 concerning continental shelf off north coast of Papua. However, there are three other agreements signed by Indonesia and Australia, which established maritime boundary between Indonesia and PNG before its independence. These three agreements, were signed in 1971, 1972 and 1973, established maritime boundaries between Indonesia and PNG, Indonesia and Australia and also Australia and PNG.[743] Even though these agreements were signed by Australia and Indonesia, the Government of the independent Papua New Guinea has recognised the validity of these agreements and confirmed its acceptance as the agreements "apply to Papua and New Guinea under the terms of the Papua New Guinea Treaty Succession Statement of September 16, 1975."[744] In other words, some segments of maritime boundaries agreed by Indonesia and Australia before the independence of PNG have been, in effect, inherited by PNG and are now been considered as maritime boundaries between Indonesia and PNG. These maritime boundaries are illustrated in Figure 4.7.

[743] The agreements are 1) Agreement between the Government of the Republic of Indonesia and the Government of the Commonwealth of Australia establishing certain seabed boundaries, signed on May 18, 1971, with ratifications exchanged on November 8, 1973. 2) Agreement between the Government of the Republic of Indonesia and the Government of the Commonwealth of Australia establishing certain seabed boundaries in the area of the Timor and Arafura Seas supplementary to the agreement of May 18, 1971, signed on October 9, 1972, with ratifications exchanged on November 8, 1973. and 3) Agreement between Indonesia and Australia concerning certain boundaries between Indonesia and Papua New Guinea, signed on February 12, 1973, with ratifications exchanged on November 26, 1974. See, The Geographer, (1979), "Territorial Sea and Continental Shelf Boundaries: Australia and Papua New Guinea- Indonesia", Limits in the Seas No. 87 – August 20, 1979, p. 2.

[744] The Geographer, (1979), "Territorial Sea and Continental Shelf Boundaries: Australia and Papua New Guinea- Indonesia", *op cit*, p. 2.

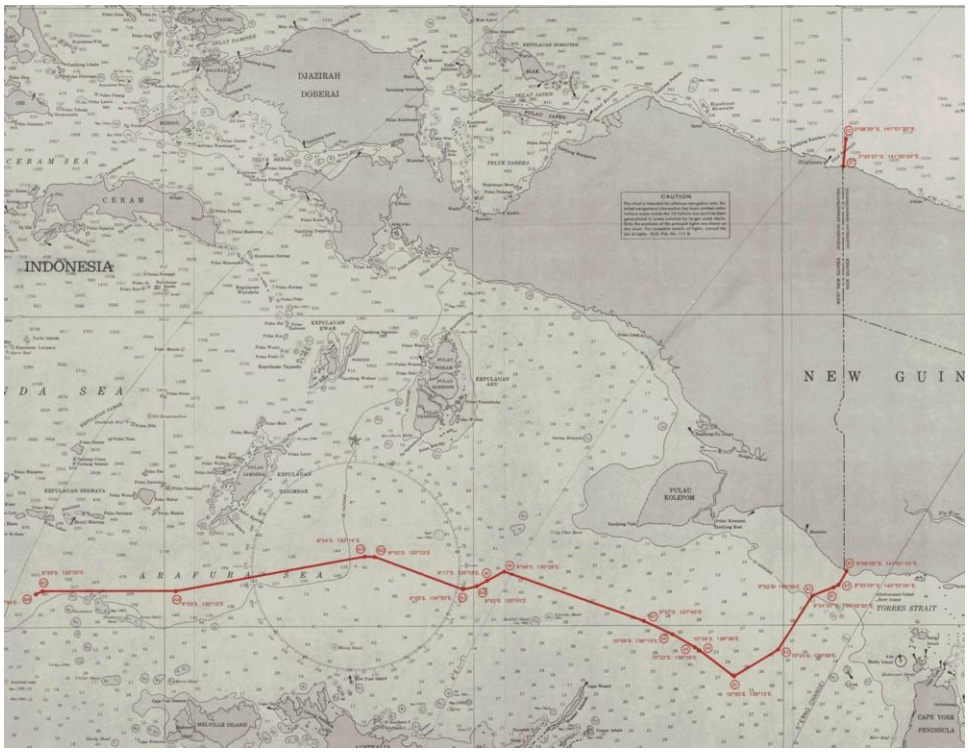

Figure 4.7 Maritime Boundaries between Indonesia and PNG[745]

The seabed boundary between Indonesia and PNG off the north coast of Papua was established by the 1971 agreement between Indonesia and Australia and the 1980 agreement between Indonesia and the independent PNG. The 1971 agreement established a short segment connecting the terminal point of land boundary between Indonesia's Irian (now Papua) and the "Trust territory of New Guinea" (point C1), and C2.[746] The segment of C1-C2 was constructed based on equidistance principle and may be extended northward, according to the provision in the agreement, using the same principle of equidistance.[747]

The only agreement between Indonesia and the independent PNG was signed on 13 December 1980 and was ratified through a Presidential Decree Number 21 of 1982.[748] The agreement delimited continental shelf between the two adjacent States in the Pacific Ocean, north of Papua Island. Being signed in 1980, when the concept of EEZ had not yet officially recognised in the international law, it only delimits continental shelf

[745] The Geographer, (1979), "Territorial Sea and Continental Shelf Boundaries: Australia and Papua New Guinea- Indonesia", *op cit*, p. 21.
[746] Article 4 (1) of the 1971 Agreement.
[747] Article 4 (1) of the 1971 Agreement.
[748] See above note 627, p. 55. For a complete documentation of the agreement, see Park, Choon-ho., (1993), Indonesia- Papua New Guinea, Report Number 5-10 in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1039-1048, Martinus Nijhoff Publisher, the Netherlands.

(seabed area), not EEZ (water column). However, the agreement explicitly mentions that the 1980 boundary line "shall, so far as it might be relevant, be the boundary of exclusive economic zone" of fishing zone between Indonesia and PNG. It seems that the boundaries have now been accepted by Indonesia to be EEZ boundary between the two adjacent States.[749] In addition, it is worth noting that the agreement does not deal with territorial sea boundary, meaning that the boundary only delimits seabed area beyond 12 nautical miles from Indonesia and PNG's baselines. Interestingly, an analysis by The Geographer states that "the single-segment boundary serves as both a territorial sea and, in part, a continental shelf boundary" since "both states claim 12-mile territorial sea breadths."[750] However, there is no specific mention of this in any of the agreements between Indonesia and Australia/PNG. In this case, the territorial sea boundary, which has yet to be delimited by the time of writing (December 2012), is subject to future delimitation between Indonesia and PNG.

The 1980 boundary started at point C2, established by the 1971 agreement, establishing three new points (C3, C4, C5) forming three segment lines, heading northward. The length of each segment (C2-C3, C3-C4, C4-C5) is about 67, 40, and 17 nautical miles, respectively. The terminal point of the boundary, point C5, is located approximately 200 nautical miles from baselines with a depth of about 3,000 metre below sea surface, where no valuable mineral resource-rich had been confirmed.[751]

Following the method used in the 1971 agreement between Indonesia and Australia, the 1980 boundary line was established using equidistance method. This agreement is considered as one of the simplest boundary agreement for Indonesia, yet it is very comprehensive in substance. It reflects, to an extent, Indonesia's rich experience in settling maritime boundaries with its neighbours.[752] In addition, as previously mentioned, the agreement also manages to anticipate the delimitation of EEZ, the existence of which had yet to be recognised at the time of the signing of the agreement. This may be viewed as a visionary agreement that is able to anticipate the dynamic development of the law of the sea at that time.

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[749] Oegroseno, the then Director General of International Treaties of Indonesian Ministry of Foreign Affairs, excludes PNG from the list of States with which Indonesia has yet to settle its pending maritime boundaries. See above note 627, p. 57.
[750] The Geographer, (1979), "Territorial Sea and Continental Shelf Boundaries: Australia and Papua New Guinea-Indonesia", *op cit*, p. 3.
[751] Park, Choon-ho., (1993), Indonesia- Papua New Guinea, *op cit*, p. 1040-1048.
[752] Park, Choon-ho., (1993), Indonesia- Papua New Guinea, *op cit*, p. 1042.

In terms of technical aspects, the 1980 agreement is similar with some previous agreements signed by Indonesia and its neighbours. It does not specifically mention the use of a particular geodetic datum in defining the coordinates. However, the agreement explicitly states that the actual location of the boundary points and line "shall be determined by a method to be agreed by the competent authorities" of Indonesia and PNG.[753] Those authorities are Bakosurtanal for Indonesia and Surveyor General for PNG.[754] This indicates that the two parties shared the same view that the definition of actual location of the boundaries is a necessary step that requires technical expertise. However, without specific mention of geodetic datum in the agreement, it is difficult, if not impossible, for technical authorities to define their actual location at sea. One possible solution is by making an assumption of the datum used in the agreement and then transforming it into a different datum that is commonly used nowadays. This approach can be done by assuming the use of a possible datum commonly used in the area/region around the time the treaty was signed.[755] WGS84 seems to be the preferred geodetic datum to use due to the use of navigational aid such as Global Position System.[756]

It is worth noting that point C5, the terminal point of the 1980 agreement, is located about 200 nautical miles from baselines. Considering that the definition of continental shelf at that time was based on the 1958 Convention on the Continental Shelf, which considers depth and exploitability but not distance from baselines, it is interesting to observe how Indonesia and PNG agreed upon the terminal point of the boundary at point C5, 200 nautical miles from baselines. In addition, the depth of the ocean where point C5 lays is around 3,000 metres and this is certainly much deeper than the maximum depth of continental shelf specified in the 1958 Convention on the Continental Shelf, which is 200 metres.[757] At the same time, there is nothing in the agreement showing that this selection of point C5 was based on exploitability consideration. It is not specified in the agreement whether or not Indonesia or PNG had conducted any activities of exploration or exploitation up to the point of C5.

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[753] Agreement between the Government of Indonesia and the Government of Papua new Guinea Concerning the Maritime Boundary between the Republic of Indonesia and Papua new Guinea and Cooperation on Related Matters (Hereinafter 1980 Indonesia-PNG Agreement), Article 2 (2). See Park, Indonesia- Papua New Guinea, *op cit*, p. 1045-1048.
[754] The 1980 Indonesia-PNG Agreement, Article 2 (4).
[755] Abidin, H. Z. *et al.*, (2005), see above note 72.
[756] *Ibid.*
[757] See, The 1958 Convention on Continental Shelf, Article 1.

With the ratification of LOSC by Indonesia and PNG, the definition of continental shelf has now been changed for them and there is possibility for the two States to exercise sovereign rights over continental shelf beyond 200 nautical miles from their baselines (see Chapter 2, subsection 2.4.6). PNG has made a submission of information on the outer limits of its continental shelf pursuant to Article 76 of LOSC to the UN CLCS,[758] while Indonesia has indicated its intention to also make a submission for the same area to the north of Papua.[759] Should the two States be proven to be entitled to such continental shelf in the region, overlapping entitlement between Indonesia and PNG may exist. Accordingly, the 1980 agreement might need to be extended northward to delimit such 'extended' continental shelf. It seems that this possibility had been anticipated by the agreement by stating that the 1980 agreement shall not prejudice future delimitation of continental shelf extending northward from point C5 "up to the outer limits of their respective continental shelf" over which the two States "exercise their sovereign rights" for the purpose of exploration and exploitation of resources, "where such sovereign rights exist."[760] In addition to that, the agreement also specifies that Indonesia and PNG will collaborate and consult each other when needed, in relation to resources exploration/exploitation of environmental protection.

With regards to continental shelf beyond 200 nautical miles, FSM has also submitted the outer limits of its continental shelf to CLCS for the area to the north of Papua as illustrated in Figure 4.8. A maritime boundary will arise should Indonesia and FSM manage to confirm their continental shelf entitlement beyond 200 nautical miles from their respective baselines around the Euripic Rise to the north of Papua.[761] This means that FSM can potentially be Indonesia's next neighbour and Indonesia may have more than ten neighbours as it currently officially recognises.

[758] Preliminary Information Indicative of the Outer Limits of the Continental Shelf Beyond 200 Nautical Miles for the Mussau Ridge and Eauripik Rise Areas submitted by Papua New Guinea, available at, <http://www.un.org/Depts/los/clcs_new/commission_preliminary.htm>.
[759] Arsana, IMA., (2007), Nippon Foundation Fellowship Paper, New York.
[760] The 1980 Indonesia-PNG Agreement, Article 2 (3).
[761] See Chapter 5 of this thesis on pending maritime boundaries between Indonesia and its neighbours.

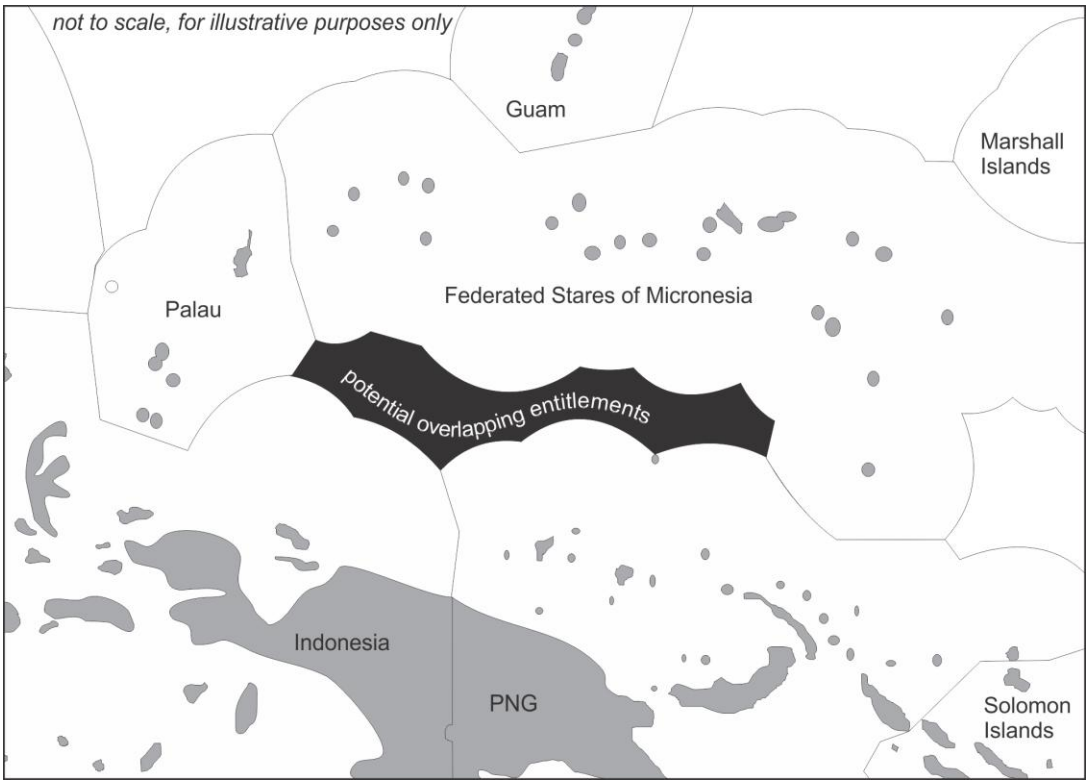

Figure 4.8 Potential overlapping continental shelf between Indonesia and FSM[762]

Maritime boundaries between Indonesia and PNG in the area of south of Papua are established by two agreements. As illustrated by Figure 4.7, the first two segments start from the terminal point of land boundaries between the two States (point B3) heading southward to point B2 and then point B1. Point B3 and B2 are defined in the Agreement between Indonesia and Australia Concerning Certain Boundaries between Indonesia and Papua New Guinea, Indonesia and Australia, signed in 1973,[763] while point B1 is established by the *Agreement between the Government of the Republic of Indonesia and the Government of the Commonwealth of Australia establishing certain seabed boundaries*, signed on 18 May 1971. The 1971 agreement defines four points in relation to Indonesia-PNG maritime boundaries: B1, A1, A2 and A3. Accordingly, seabed boundary between Indonesia and PNG in the south of Papua is formed by six points: B3, B2, B1, A1, A2, and A3 with total of around 130 nautical miles in length (see Figure).[764] The 1971 agreement also defines other boundary turning points forming

[762] The illustration was prepared by the author.
[763] Agreement between Indonesia and Australia Concerning Certain Boundaries between Indonesia and Papua New Guinea, Indonesia and Australia [Indonesia-Papua New Guinea Agreement 1973], Article 3.
[764] The Geographer, (1979), "Territorial Sea and Continental Shelf Boundaries: Australia and Papua New Guinea- Indonesia", *op cit*, p. 4.

seabed boundary lines between Indonesia and Australia heading westward. These particular segments are discussed in section 4.8.

It is intriguing to observe that the 1973 agreement indeed anticipates the possibility of point B3, the meeting point of land boundary and maritime boundary, for being ambulatory. In article 3 of the 1973 Agreement, the coordinates of point B3 is defined. However, it is further elaborated that it is the "intersection of the meridian of Longitude 141 01' 10" East with the mean low water line on the southern coast of the island of Irian (New Guinea)." Furthermore, it is explained that if the actual location point B3 "ceases to be the point" expressed by the coordinate, the meeting point of land boundary the seabed boundary between Indonesia and PNG shall be at the point "at which the straight lines connecting the points MM14, B3 and B2 shown on the chart annexed" to the 1973 Agreement intersect the mean low water line on the southern coast."[765] To an extent, this may be viewed as an effort to accommodate the change of low water line in the area. In addition, an analysis of The Geographer reveals that baselines used in the construction of equidistance line between Indonesia and PNG were those "depicted on aerial photography taken during a particular period of time"[766] and not the recognised nautical chart of Indonesia and/or PNG.

To sum up, Indonesia and PNG have established continental shelf boundary in the area of north and south of Papua. The two boundaries were developed using equidistance method or a form of selective/modified equidistance.[767] The boundaries are not only for seabed, but also regarded as EEZ boundaries. However, the territorial sea has yet to be delimited in the area to the north and south of Papua, which is therefore likely to be subject to future delimitation between the two States.

4.8 Indonesia-Australia

Indonesia and Australia established their first maritime boundaries in 1971 (see section 4.7). [768] This is one of the four maritime boundary agreements signed by the two neighbouring States including the latest one singed in 1997. As illustrated in Figure 4.9,

[765] Indonesia-Papua New Guinea Agreement 1973, Article 4.
[766] The Geographer, (1979), "Territorial Sea and Continental Shelf Boundaries: Australia and Papua New Guinea- Indonesia", *op cit*, p. 4.
[767] *Ibid.*
[768] For a complete documentation of the Agreement between the Government of the Commonwealth of Australia and the Government of the Republic of Indonesia Establishing Certain Seabed Boundaries (hereinafter referred to as 1971 Indonesia-Australia agreement), see Prescott, JRV., 1993, Australia-Indonesia (Seabed Boundaries) Report Number 6-2(1) in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1195-1205, Martinus Nijhoff Publisher, the Netherlands.

the 1971 Indonesia-Australia seabed boundaries agreement established 10 points from A3 at the coordinates of 10° 50' South and 139° 12' East, to point A12 at the coordinates of 08° 53' South and 133° 23' East. In this case, point A3 is also the terminal point of Indonesia-PNG seabed boundary in the Arafura Sea (see section 4.7 Indonesia-Papua New Guinea). Accordingly, point A3 is considered as the tri-junction point of seabed boundaries of Indonesia-PNG, Indonesia-Australia and Australia-PNG.[769] From this point (A3) eastward, maritime boundaries between Australia and PNG have been delimited, covering maritime area between the two countries, including Torres Strait, and related matters. The treaty was signed in Sydney on 18 December 1978 that concerns territorial sea, continental shelf, and fishery boundary zone between the two States.[770]

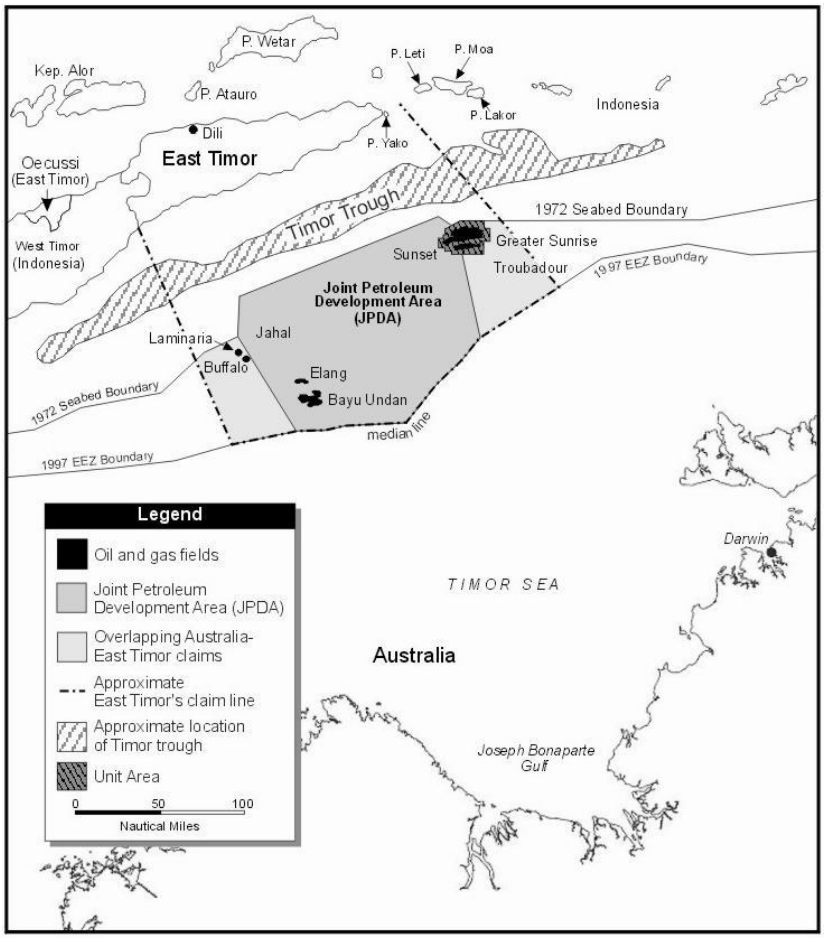

Figure 4.9 Maritime Boundaries between Indonesia and Australia[771]

[769] The Geographer, (1979), "Territorial Sea and Continental Shelf Boundaries: Australia and Papua New Guinea- Indonesia", *op cit*, p. 3.
[770] *Ibid.*, p. 2.
[771] Illustration by the author.

On 9 October 1972, Indonesia and Australia signed an agreement concerning certain seabed boundaries in the area of the Timor and Arafura Sea. This is a supplementary of the 1971 agreement, continuing the previously established seabed boundary, which heads westward from point A12. The agreement defines point A13, A14, A15 and A16 connected by straight line segments shown in the chart annexed to the agreement. It terminates at point A16 (9° 28' S, 127° 56' E), leaving a gap and then starting again at point A17 (10° 28' S, 126° 00' E) as shown in Figure 4.9. A gap between these two points is around 129 nautical miles (about 239 km) in length. From point A17 westward, the boundary line continues to establish eight more points up to A25 at 11°35' S and 123°14' E. The gap between A16 and A17 was then known as the Timor Gap. This gap is the consequence of the absence of Portugal from participation in the delimitation of maritime boundaries. When the 1972 Agreement was signed by Indonesia and Australia, Timor-Leste was under the administration of Portugal, which refused to participate in the delimitation of maritime boundaries in the Timor Sea. Consequently, no maritime boundary was delimited in the Timor Sea to the south of Timor-Leste proper (see Figure 4.9).[772]

Having noted the above, by the time the 1973 agreement was signed by Indonesia and Australia, seabed boundaries between the two States in the Timor and Arafura Seas consisted of two segments. The first segment is to the east of Timor Gap (A3-A16) and the second one is to the west of Timor Gap (A17-A25). The eastern segment accounts for about 705.38 nautical miles in length while the western segment is approximately 188 nautical miles.[773] The analysis by The Geographer suggests that segment A3-A12 of the eastern parts of the seabed boundaries were based on equidistance method. However, the other part, that is between points A13 and A16, is located at the Indonesian side of the median/equidistance line between Indonesia and Australia. Point A12 is the last point equidistant from Indonesia and Australia. It is located in a point equidistant from one point in Australia's side and two points in Indonesia's side. They are New Year Island (Australia), Cape Ngabordamlu (Indonesia-Trangan Island), and

[772] See Arsana, IMA, (2006), Critical Study on The Technical Aspects of The Maritime Boundary Delimitations: A Case Study of The Maritime Boundary Delimitation between The Republic of Indonesia and the Democratic Republic of Timor Leste, Unpublished Master Thesis at the University of New South Wales.
[773] The Geographer, (1979), "Territorial Sea and Continental Shelf Boundaries: Australia and Papua New Guinea- Indonesia", *op cit*, p. 8.

Pulau Enu (Indonesia).[774] The rest segment starting from point A12 westward is a result of negotiation to consider the limit of "then-existing Australian hydrocarbon concessions" in the region which is "adjacent to the northern territory of Australia."[775] In addition, this is also in relation, in part, to the geomorphology of the ocean floor. The non-equidistant part is located around 20 to 75 nautical miles at the Indonesian side of the true equidistant line. In respect to geomorphology of the ocean floor, it is situated around 20 to 65 nautical miles south of the line delineating the "deepest water between the 200 nautical miles isobath contiguous to Australia and the 200 nautical miles isobaths situated about individual Indonesian islands."[776] The treaty line is apparently located between the two 200 nautical miles isobath lines of Indonesia and Australia, although it does not seem to divide the area between the two lines equally.[777]

With regard to the use of baselines, it is worth noting that the equidistance line in segment A3-A12 was not constructed by utilising the Indonesian system of claimed archipelagic straight baselines. The line was defined using normal baseline of Indonesia depicting charted coastline. Even though Indonesia had claimed and published it archipelagic baselines since 1960 through an Act Number 4/Prp/1960 (see Chapter 3), it seems that Australia refused to accept the use of Indonesia's archipelagic baselines in the delimitation of a maritime boundary between Australia and Indonesia. This kind of practice, however, is not unique. In maritime boundary delimitation negotiation, there are cases when one State does not recognise the straight baselines or archipelagic baselines of another State and then they decide to use alternative baselines in a process of delimitation.[778] This provides a good example of the fact that while coastal States are free to propose anything in negotiation it is nonetheless ultimately up to the parties in question to compromise and then reach a mutually acceptable agreement. The achievement of such agreements necessarily leads to compromise positions being adopted. This freedom might not be found when such issues are brought before a third party for binding settlement, such as the International Court of Justice (ICJ) and International Tribunal for the Law of the Sea (ITLOS). However, in order for coastal

[774] The Geographer, (1979), "Territorial Sea and Continental Shelf Boundaries: Australia and Papua New Guinea- Indonesia", *op cit*, p. 6.
[775] *Ibid.*
[776] *Ibid.*
[777] *Ibid.*
[778] United Nations, 2000, Handbook on the Delimitation of Maritime Boundaries, New York, United Nations, Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, UN Publication Sales No. E.01.V.2: 32.

States to be able to get the most out of a negotiation process, a strong and effective negotiating team is the key so a coastal State can defend its national interest best in a negotiating table.

Similar to the segment of A13-A16, it seems that the western segment of the Australia-Indonesia continental shelf boundary (A17-A25) does not follow the strict equidistance lines between the two States. Point A17, for instance, is located around 80 nautical miles on the Indonesian side of the equidistance line, and 40 miles south of a deep water line.[779] It appears that the boundaries that have been the result of a negotiation between parties are "based upon equitable principles."[780] Analysis of the Geographer shows that two factors seem to have been considered, which are location of the limit of Australian petroleum concessions and, in part, the geomorphology of seabed. It was found by the Geographer that the theoretical median line eventually converges with the deep water line and crosses as the boundary lines run closer to Ashmore and Cartier Islands, the sovereignty of which, is under Australia.[781] Meanwhile, the boundary line remains in between the two lines: median line and deep water line as it reaches the terminal points (A25). The terminal point, however, is closer to Australia's Ashmore Islands to the south than to Indonesia's Pulau Roti to the north (see Figure 4.9). Apart from certain modification and innovation in the delimitation of maritime boundaries between Indonesia and Australia in the Timor Sea and Arafura Sea, it was quite certain that the boundaries were established with significant consideration to the principle of natural prolongation, where geomorphology of the seabed played an important role.[782]

Attempts were made to close the gap between the aforementioned boundary segments, referred to as the Timor Gap, in the aftermath of Portuguese withdrawal. In general, Australia proposed a single line closing the gap, simply by drawing a line connecting point A16 and A17. However, Indonesia did not view this proposal as a way to generate an equitable solution for both States.[783] Indonesia's view was based on the fact that maritime boundary making had evolved significantly since the first agreement with Australia was signed in the 1970s. In the case of Libya/Malta in 1985, for example, the

[779] The Geographer, (1979), "Territorial Sea and Continental Shelf Boundaries: Australia and Papua New Guinea- Indonesia", *op cit*, p. 7.
[780] *Ibid.*
[781] *Ibid.*
[782] Schofield, C. and Arsana, I M. A., (2007) "The Delimitation of Maritime Boundaries: A Matter of 'Life or Death' for East Timor?" in Kingsbury, D and Leach, M. (eds) East Timor: Beyond Independence, Melbourne: Monash University Press, p. 73.
[783] Schofield, C. and Arsana, I M. A., (2007), p. 71.

ICJ decided that natural prolongation is no longer relevant in maritime boundary delimitation within a distance of less than 400 nautical miles from opposite States.[784] This gave a rationale for Indonesia's view that geomorphology of the seabed was no longer relevant in defining Indonesia-Australia seabed boundary. Furthermore, LOSC governs that continental shelf delimitation is to achieve an "equitable solution"[785] without specifically mentioning the need to consider geomorphology of the seabed in question. Indonesia apparently viewed, at that time, that equitable solution could be achieved by equidistance or median line so that connecting point A16 and A17 was not viewed as an attractive solution. These clearly distinct views on delimitation options with respect to the Timor Gap led Indonesia and Australia to deadlock. In 1989, this impasse was overcome through the negotiation of a complex and creative solution involving the establishment of joint cooperation zones, instead of a single maritime boundary. The agreement is also known as the Timor Gap Treaty.[786] The agreement established three zones of cooperation, namely, zones A, B and C covering around 60,500 square kilometres in the Timor Sea. With regard to exploration and exploitation Part II of the treaty arranges that area B is managed by Australia, C by Indonesia and A is shared by both States in term of production. For area B, Australia was obliged to pay Indonesia ten per cent "of gross Resource Rent Tax collected by Australia from corporations producing petroleum".[787] For area C, Indonesia was obliged to pay Australia ten per cent "of Contractors' Income Tax collected by the Republic of Indonesia from corporations producing petroleum".[788] While for zone A, which was the largest zone among the three, the financial benefits gained its production are to be shared jointly and the percentage was to be defined by Ministerial Council.[789]

With the independence of Timor-Leste in 2002, following the referendum in 1999, the Timor Gap Treaty, which was signed by Indonesia and Australia, became invalid and is no longer in force. Being absent from the agreement, Timor-Leste did not recognise the agreement signed in 1989 and consequently, Timor-Leste and Australia needed to make a new agreement dealing with the Timor Sea. In 2002, the two States agreed upon a new

[784] Case Concerning the Continental Shelf (Libya Arab Jamahiriya/Malta), Judgment of 3 June 1985, ICJ Reports,13, [hereinafter Libya/Malta Case], para. 39, available at www.icj-cij.org.
[785] LOSC, Article 83.
[786] For a complete documentation of the Timor Gap Treaty, see Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1363-1370, Martinus Nijhoff Publishers, the Netherlands
[787] The Timor Gap Treaty, (1989), Article 4 (1) (b).
[788] The Timor Gap Treaty, 1989, Article 4 (2) (b).
[789] The Timor Gap Treaty, 1989, Article 6 (1) (j).

treaty called the Timor Sea Treaty, which once again established a joint development area (coincident with Zone A of the old Timor Gap Zone of Cooperation) for Timor-Leste and Australia. Since it is not directly related to Indonesia, this is not intensively discussed in this thesis. [790]

Prior to the signing of the Timor Gap Treaty, Australia proclaimed its fishing zone extending 200 nautical miles from its baselines in 1979. It also defined that when this fishing zone overlapped similar claims by other States, it would then be delimited using strict equidistance principle. As a consequence of this proclamation, Australia and Indonesia needed to establish a fishery boundary in the Timor and Arafura Sea. However, Indonesia did not accept the use of strict equidistance line for the boundary around Ashmore Reef and Cartier Islands, since the two geographical features would generate a line that apparently placed Indonesia at a significantly disadvantaged position, if the two were given full effect. Accordingly, in a memorandum of understanding (MoU) singed on 29 October 1981, Ashmore Reef and Cartier Islands were semi enclaved. It seems that they were given nil effect since the boundary line were defined by considering Indonesia and Australia's main lands and the two geographical features were given 12 nautical miles of maritime area (see Figure 4.9).[791] The MoU concerns the implementation of a provisional fisheries surveillance and enforcement arrangement between the two States. In total, it established 44 points of boundaries where the first ten points (1-10) exactly coincide with the 1971 seabed boundary, while the middle segment (point 10-39) is located south of the 1971 boundary with a length of around 550 nautical miles. The last part of the 1981 fishery boundary consists of four long segments from point 39 to 44. An arch with a radius of 12 nautical miles is generated enclosing Ashmore Reef and Cartier Islands, connecting point 40, 41 and 42.[792]

[790] For a comprehensive analysis on maritime boundaries involving Australia and Timor Leste, see for example, Schofield, CH., 2005, *A "Fair Go" for East Timor? Sharing the Resources of the Timor Sea*, Contemporary Southeast Asia, Vol. 27, No. 2, pp. 255-280; Schofield, CH., 2008, *Australia's Final Frontiers?: Developments in the Delimitation of Australia's International Maritime Boundaries*, Maritime Studies January-February 2008, pp. 2-21.

[791] For a complete documentation and analysis on this agreement, see Prescott, JRV, 1993, Australia-Indonesia (Fisheries) Report Number 6-2(4) in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1229-1243, Martinus Nijhoff Publishers, the Netherlands.

[792] Prescott, JRV, (1993), Australia-Indonesia (Fisheries), *op cit*, p. 1233.

The 1981 MoU does not specify geographical coordinates of the 44 points in the MoU document, but in a list found in a sketch map attached to it.[793] There is no mention in the agreement about technical specification of the sketch map, such as geodetic datum, and projection system. This certainly is a similar issue with other agreements Indonesia signed with its neighbours during the period of time. This may bring technical difficulties in the future when it comes to defining actual location of the boundaries. In addition, unlike other agreement this 1981 MoU does not specify the role of technical authorities, such as survey and mapping agency, from Indonesia or Australia in the realisation of these boundary points in the field. At the time of writing, there is no further resolution on these technical issues.

Another important point to note from the 1981 MoU is the provision emphasising that the provisional arrangement will not affect traditional fishing rights by Indonesian traditional fishermen as set out in the 1974 MoU signed by Indonesia and Australia on 7 November 1974.[794] It also regulates how Indonesia and Australia would treat certain species such as swimming species and sedentary species. The two governments will take all necessary steps to implement the provisional arrangement.

After the entry into force of the LOSC on 16 November 1994, the EEZ regime was since officially recognised. Accordingly, Australia and Indonesia are both entitled to an EEZ in the Timor and Arafura Sea. Considering that the average distance between the two States is less than 400 M, the two States needed to delimit EEZ boundaries in the area. In 1997, Indonesia and Australia signed the 1997 EEZ and Seabed agreement in Perth on 14 March 1997.[795] At the time of writing, the treaty has yet to be ratified by both Indonesia and Australia. It is unclear, however, why both governments hesitate to ratify the agreement. Indonesia's affirmation of the pending ratification of the agreement was expressed in a note verbale it sent to the United Nations Secretary General regarding CLCS' recommendation of Australia's continental shelf beyond 200

[793] The 1981 MoU, Article 3.

[794] In the MoU signed in 1974, Australia recognised Indonesia's traditional fishing rights in particular area within Australia's exclusive fishing zone with certain condition. Document of the 1974 MoU is attached to the 1981 MoU between Indonesia and Australia. See Prescott, JRV, 1993, Australia-Indonesia (Fisheries), *op cit*, pp. 1239-1241.

[795] Treaty between the Government of Australia and the Government of the Republic of Indonesia establishing an exclusive economic zone boundary and certain seabed boundaries. See Prescott, JRV., (2002), Australia-Indonesia, Report Number 6-2(6) in Charney J.I. and Smith R. W. (eds) *International Maritime Boundaries*, pp. 2714-2727, Martinus Nijhoff Publishers, the Netherlands.

nautical miles.[796] In the note verbal, Indonesia asserts that the 1997 Treaty "has yet to be ratified" so that point ARG-ECS-1 forming the outer limits of Australia's continental shelf in Argo Region that is coincident with the point A82 of the 1997 Treaty, "has no legal effect".[797] This does not tell the reason why Indonesia has yet to ratify the 1997 Treaty but clearly shows that Indonesia is aware of the consequences.

The 1997 treaty completed the maritime boundary delimitation between Indonesia and Australia that was started in 1971. It elongates the seabed boundary that previously terminates at point A25, somewhere between Ashmore Reef of Australia and Pulau Rote of Indonesia, westward. From point A25, the treaty established reasonably long segments westward up to point A82 (13° 05' 27.0" South, 118° 10' 08.9" East). In addition to seabed boundaries, the 1997 agreement also delimited EEZ boundaries between the two States in the Timor and Arafura Sea. It converted the 1981 Provisional Fisheries Surveillance and Enforcement into EEZ boundaries with one modification.[798] Since it is the same as the 1981 fishery boundary, the EEZ segment of the 1997 boundaries are based on the equidistance principle.

Consequently, the new line does not coincide with the previously established boundary lines delimiting seabed between Indonesia and Australia, which was defined by considering natural prolongation. This difference created maritime area to the east and west of the joint cooperation zone established in 1989, in which the seabed belongs to Australia while Indonesia exercises sovereign rights over the water superjacent to such seabed. Accordingly, natural resources of the water column (EEZ) can be utilised by Indonesia, while Australia is entitled to seabed resources. Interestingly, there is general understanding, especially among the fishermen in Indonesia that they can fish within the concerned area and catch fishes and any other kind of marine resources as long as they do not touch seabed resources. While oil and gas are obvious to be seabed resources, some might not have precise understanding that some living organisms that belonging

[796] Permanent Mission of the Republic of Indonesia, 2009, Note verbale with regard to the "Recommendations of the Commission on the Limits of the Continental Shelf in regard to the submission made by Australia on 15 November 2004 on information on the proposed outer limits of its continental shelf beyond 200 nautical miles", New York, available at, <http://www.un.org/Depts/los/clcs_new/submissions_files/aus04/clcs_03_2004_los_idn-recomm.pdf>, accessed on 29 May 2013.
[797] *Ibid.*
[798] Prescott, JRV., (2002), Australia-Indonesia, *op cit*, p. 2714.

to sedentary species, also constitute continental shelf resources.[799] Sedentary species such as sea cucumber (*teripang*) may be mistakenly caught by Indonesian fishermen within the concerned area, which is illegal. Fishermen seizure and boat burning is not uncommon issues with fishermen fishing in the water around Timor Arafura Sea.[800] Undoubtedly, there are also other reasons behind these kinds of incidents but the difference between seabed and EEZ boundary (water column) lines is apparent to be a source of problem.[801]

4.9 The Way Forward

Indonesia may be considered as relatively productive in achieving maritime boundary agreements with its neighbours. A total of 17 agreements with seven States show Indonesia's productive effort for the last four decades. One point to note regarding the agreements is that all of them were achieved through bilateral negotiation showing that Indonesia and its neighbours managed to maintain close relationship. Even though some agreements, such as Indonesia-Vietnam seabed boundary, took a reasonably long time to settle, at least the negotiations did not find a deadlock situation so no case were settled with a third party involvement. This shows that Indonesia has a reasonably strong political will to settle maritime boundaries with its neighbours through negotiation. It is likely that Indonesia will maintain this approach of bilateral negotiation in the future maritime delimitation for it has been proven effective.

Indonesia has experienced maritime boundary delimitation in different legal context or basis. Three last agreements (with Australia in 1997, with Vietnam in 2003 and with Singapore in 2009) were settled when the LOSC had entered into force. Meanwhile other thirteen agreements were settled with different legal basis, which was, the 1958 Geneva Convention or other relevant jurisprudence. This situation can be seen in the Timor Sea, for example, where Indonesia settled seabed boundary in the 1970s and EEZ (water column) in 1997. The two maritime boundaries used different legal basis so it is

[799] Sedentary species are "organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil." LOSC, Article 77 (4).

[800] MMAF, (2008), Australia, once again, burned Indonesia's fishing boat [*Australia Bakar lagi Satu Kapal Nelayan Indonesia*], available at <http://www.kkp.go.id/index.php/arsip/c/5338/Australia-Bakar-lagi-Satu-Kapal-Nelayan-Indonesia/>; Personal communication with the Indonesian Consulate General in Sydney on May 2012.

[801] Fox, JJ., (2009), Legal and Illegal Indonesian Fishing in Australian Waters, in Cribb, R. and Ford, M. 2009, Indonesia beyond the water's edge- Managing an archipelagic state, Indonesian Update Series, RSPAS Australian National University, ISEAS, Singapore. pp. 218-219.

not surprising that seabed boundaries and EEZ boundaries are not coincident each other. While seabed boundaries settled in 1970s relied on the principle of natural prolongation, the EEZ boundary in 1997 relied heavily on the principle of equitable solution. Consequently there is a space where seabed belongs to Australia while water column superjacent to it is within Indonesia's jurisdiction. Some might see that the seabed boundary in the Timor Sea does not reflect equity between Indonesia and Australia in terms of distance since the line lies in the Indonesian side of median line between Indonesia and Australia. One thing to learn from this is that maritime boundary delimitation has evolved significantly and the quality of a particular maritime boundary agreement should not be evaluated or judged against provisions of convention/regulation that entered into force after the agreement was signed.

One consequence of the evolution of the law of the sea, particularly provisions regarding maritime limits and boundaries, for Indonesia is the need to settle water column (EEZ) boundaries in maritime areas where seabed boundaries have been settled. The arrangement in the Timor Sea where seabed boundaries are not coincident with EEZ boundaries can be a good reference for Indonesia. Positively, this example guarantees equitableness of new maritime boundaries to settle without considering existing seabed boundaries. However, it also brings complexity in boundary management, especially the utilisation of resources by parties in question. Considering that most of the existing seabed boundaries lie in the Indonesian side of the median/equidistance lines, it is likely that the arrangement in the Timor Sea is duplicated in other places, which will eventually bring more complexity. To Indonesia and its neighbours, the future challenges will be on how to deal with management in complexly-arranged maritime boundaries.

With regards to delimitation, the main homework for Indonesia is to settle maritime boundaries with three neighbours (Philippines, Palau, and Timor-Leste) where no maritime boundaries have been settled. Leaning from possible complexity in the Timor Sea, it is suggested that Indonesia settled single boundary line for different regime, for example, a single line for continental shelf and EEZ in the Sulawesi Sea between Indonesia and the Philippines. This can also be the case with Indonesia-Palau and Indonesia Timor-Leste. Another issue facing Indonesia in the future is yet to be resolved technical issues such as the use of datum. In every treaty, there is a provision stating that the actual location of points/line will be defined by relevant authorities from

both States in question. This can be problematic in the field if datum is not specified in a treaty since coordinates are meaningless without datum. Therefore provision regarding the definition of actual location of points involving relevant authorities may be seen as a 'time bomb' that will eventually cause problem in the future. For the existing boundaries that do not specify datum, additional process is required so that parties in question can achieve agreement on the use of geodetic datum. For future maritime boundaries, it has to be guaranteed that technical aspects, such as datum use, are properly addressed to avoid as many problems as possible in the future.

To sum up, Indonesia has has generally achieved good progress in terms of maritime boundaries with 17 agreements but there are things to be done. Delimitation for pending maritime boundaries is the main task for Indonesia in the future. Certainty on maritime boundaries is undoubtedly critical and uncertainty is proven to be source of problems. Analysis on Indonesia's pending maritime boundaries is provided in Chapter 5 of this thesis.

4.10 Concluding remarks

Indonesia signed its first maritime boundary agreement in 1969 with Malaysia. The agreement is for continental shelf delimitation in the Malacca Strait, and South China Sea. Since the first agreement, Indonesia has been actively negotiating its maritime boundaries with its ten neighbours (clockwise from the northwest): India, Thailand, Malaysia, Singapore, Vietnam, the Philippines, Palau, Australia and Timor-Leste. As per October 2013, Indonesia has settled 17 maritime boundary agreements covering territorial sea, continental shelf and EEZ boundaries. The agreements were settled with seven States (that is, India, Thailand, Malaysia, Singapore, Vietnam, and Australia) while no maritime boundary agreements have been settled with the Philippines, Palau, and Timor-Leste.

The main benefits of the conclusion of maritime boundaries with the aforementioned seven States are twofold. Firstly, the agreements serve as clarification of sovereignty and jurisdiction over maritime area. Secondly, they guarantee certainty over ownership of maritime resources therein. These agreements are important to prevent or at least minimise unnecessary incidents around border areas since relevant parties, users and law enforcement agencies, will have the same reference/guidance in terms of the extent of territory and jurisdiction. Settled maritime boundaries also provide certainty

regarding the spatial extent of rights and obligation in relation to resource utilisation. The certainty also facilitates collaboration between Indonesia and its neighbours, not only in utilising but also in conserving resources, should it be required.

Furthermore, even when maritime boundaries have been settled, problems/challenges may arise. In the case of Indonesia and Australia for example, different lines settled for seabed/continental shelf and EEZ (water column) present challenges in relation to resource management. It can be complicated for there is space where the seabed belongs to Australia while the water superjacent to the seabed is within Indonesia's jurisdiction (see section 4.8). In practice, fish are for Indonesia but oil and gas are for Australia. What people, especially fishermen, might not understand well is that sea cucumbers, for example, fall within a category of sedentary species which belong to the seabed.[802] In this case, the challenge is no longer in settling boundary line but in boundary administration, which is ocean resources management.

Another issue detected in settled maritime boundaries between Indonesia and its neighbours is concerning technical aspects, especially the use of geodetic datum. Maritime boundaries between Indonesia and Singapore settled in 1973 (see section 4.5) is a good example of this issue. The absence of geodetic datum, consequently, cause difficulties in defining the exact position of boundary point/lines in the field for coordinates do not mean anything without information on specific geodetic datum. In practice, this uncertainty consequently affects law enforcement in relation to cross-border activities. It is difficult, if not impossible, to identify whether or not a vessel for example, cross boundary line in conducting its activities in the Singapore Strait. This is an issue that needs to be dealt with after delimitation to ensure it will not cause any issues in boundary administration/management. In this case, Indonesia and Singapore have agreed on the transformation of coordinates defined in the 1973 agreement into the WGS 84 datum (see Chapter 2, subsection 2.7.3).

Notwithstanding the fact that Indonesia has achieved significant process regarding maritime boundary delimitation by signing 17 agreements, a lot of work remains to be done. As per October 2013, Indonesia still has more than 20 segments of maritime boundaries to be delimited in several different locations covering territorial sea, EEZ

[802] LOSC, Article 74 (4).

and continental shelf.[803] It seems that some pending boundaries are treated urgently, while others are not. This is apparently because each maritime boundary has its own character, which is different from one another. While one particular boundary location is prone to border incidences, others might be virtually free from incidents. Human activities in border areas are (for example, navigation, fishing activities, and mining-related activities) also an important contributing factor as to how prone one particular border location is to incidences. The less activity the location hosts, the lower the possibility of incidence happening in the location.

Notwithstanding the fact that settled maritime boundaries are important for a coastal State like Indonesia, they are not the end of the story. Settled maritime boundaries are only starting points for transboundary maritime management and ocean governance. Delimited maritime boundaries do clarify maritime division between neighbours but they do not automatically settle issues on transboundary activities which often emerge between two or more neighbouring States. It is important to note that maritime boundaries are not established to exclude one State from the other and they are not meant to limit or prevent international movement of goods and people. People smuggling is a good example of issues that may arise between neighbouring States even though maritime boundaries have been settled. The case of Australia and Indonesia is a good example of this where Indonesia becomes a point from where people are smuggled to Australia in search of a better life.[804] Recently, the Australian government proposed a new approach on how to deal with the issues by turning back boat used for people smuggling.[805] In addition a policy to buy boats from Indonesian fishermen so that the boat will not be bought for the purpose of smuggling people has also been proposed by the Tony Abbot, the then Australian opposition leader/prime-minister elect, which apparently was not seen as a friendly approach by the Indonesian side.[806] This is an indication that notwithstanding the fact that maritime boundaries have been settled, issues regarding boundary management are there to deal with.

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[803] See above note 627, p. 57.
[804] Purdy, H. (2010), People smugglers: The other 'boat-people', The ANU Undergraduate Research Journal Volume Two 2010.
[805] ABC News, Abbott splitting hairs on the difference between towing and turning back the boats. Available at <http://www.abc.net.au/news/2013-10-10/abbott-splitting-hairs-on-tow-turn-difference/4994592> on 11 October 2013.
[806] ABC News, Incoming foreign minister Julie Bishop says Coalition will negotiate with Indonesia on asylum seekers. Available at <http://www.abc.net.au/news/2013-09-12/indonesia-set-to-reject-abbotts-asylum-boat-plan/4954574> on 13 September 2013.

To sum up, it is worth noting that Indonesia has managed to accomplish a number of maritime boundary agreements with its neighbours. However, there is a lot more to be done for Indonesia to eventually complete its maritime boundaries. Chapter 5 of this thesis comprehensively discussed Indonesia's pending maritime boundaries.

CHAPTER 5 INDONESIA'S PENDING MARITIME BOUNDARIES

"I want you to be concerned about your next door neighbour. Do you know your next door neighbour?" - Mother Teresa

5.1 Introduction

As noted in Chapter 4, Indonesia has made substantial progress in the delimitation of maritime boundaries with its neighbours. Much, however, remains to be achieved. This Chapter builds on the preceding chapter by providing a systematic inventory and critical analysis of Indonesia's pending or undelimited maritime boundaries with its neighbours. In providing a systematic and comprehensive discussion of Indonesia's pending maritime boundaries it provides the basis for subsequent detailed examination of three of Indonesia's outstanding maritime boundary scenarios with respect to Malaysia in the Sulawesi (or Celebes) Sea (Chapter 6), with Singapore and Malaysia in the Singapore Strait (Chapter 7) and with Malaysia once again in the Malacca Strait (Chapter 8).

As previously mentioned Indonesia has yet to finalise its maritime boundaries with several neighbouring States, including Malaysia, Singapore, Vietnam, The Philippines, Palau, and Timor-Leste. In total there are more than 20 segments of maritime boundary yet to be delimited, covering, variously, territorial sea, EEZ, and continental shelf rights.[807] While some maritime boundary segments, notably with respect to Malaysia and Singapore, seem to have been treated as high priorities resulting in active negotiations often yielding boundary agreements (see Chapter 4), some others do not seem to have been considered as being equally-urgent. For example, the maritime boundary delimitation negotiation process between Indonesia and both Palau and Timor-Leste does not seem to be as active as that with, for example, Malaysia.

The apparently variable or differential treatment of Indonesia's outstanding, undelimited maritime boundaries is perhaps understandable in that engaging in maritime boundary delimitation negotiations requires considerable investments in terms of diplomatic and human resources. Indonesia, with its exceptional number of maritime neighbours and thus numerous potential maritime boundaries to delimit therefore faces considerable challenges in this regard. It is therefore unremarkable that Indonesia has had to prioritise the resolution of certain maritime boundaries over others.

[807] Oegroseno, 2009, see above note 2, p. 57.

It can be suggested that the delimitation of certain maritime boundaries in preference to others stems from several factors. These include the overall bilateral relationship between Indonesia and the neighbouring State in question as friendly diplomatic relations provide a more conducive background for delimitation negotiations to proceed. Additionally, where disputes arise over overlapping maritime claims then this can provide a catalyst for boundary dispute resolution. Similarly, where valuable marine resources are present, or are thought to be present, in contested marine spaces, then maritime boundary delimitation negotiations are provided with greater impetus. Political situation can also serve as an accelerating factor in maritime boundary delimitation. In a State like Indonesia, whose history is coloured with colonialism and fighting for independence, issues on sovereignty and sovereign rights are easy to sell. During the presidential election in 2009, for example, issues on Ambalat Block dispute with Malaysia (see Chapter 6) was one of the hotly-debated topic in campaigns. Politicians tend to capitalise this kind of issue to attract voters.

The foregoing is not to suggest that the settlement of Indonesia's undelimited maritime boundaries is necessarily a low priority. While some of Indonesia's undelimited maritime boundaries have not proved problematic in terms of diplomatic tensions or conflicting marine uses such as navigation rights and access to resources, among Indonesia's undelimited maritime boundaries are several particularly complex and contentious ones which have, to date, defied resolution. These following subsections discuss pending maritime boundaries with several States. They provide geo-legal analysis on yet-to-be-delimited maritime boundary segments with Malaysia, Singapore, Vietnam, the Philippines, Palau and Timor-Leste. These States were chosen for the case of maritime boundary delimitation with those can represent the entire cases Indonesia is facing with its ten neighbours. Maritime boundary with Australia is not discussed in this chapter since no pending maritime boundaries require delimitation. The only issue with Australia is the 1997 maritime boundaries that need to be ratified as critically discussed in Chapter 4 (section 4.8) of this thesis. Papua New Guinea is not discussed either for maritime boundaries with PNG have been nearly completed. Pending issues regarding delimitation have been comprehensively discussed and analysed in Chapter 4 (section 4.7) of this thesis. India and Thailand are also absent from this chapter for both have been discussed in sections 4.2 and 4.3 respectively in Chapter 4. With Thailand and India, Indonesia has similar issue regarding EEZ delimitation, which at the time of

writing, was not a source of tension for international relationship between Indonesia and India or Indonesia and Thailand. In other words, EEZ boundaries with India and Thailand are less urgent compared to the case of Indonesia and Malaysia, for example.

The aim of this chapter is to critically discuss the latest development of Indonesia's pending maritime boundaries, identify problems that cause the delay in delimitation and critically analyse the impact of pending maritime boundaries to Indonesia in particular and international relationship with neighbours. A good understanding on the problems of pending maritime boundaries and their impacts to Indonesia is essential for the next step in proposing solution for the pending maritime boundaries, particularly through maritime boundary delimitation. Furthermore, this is to investigate challenges and opportunities in the delimitation of Indonesia's maritime boundaries with an emphasis on legal and technical aspects for a political solution. This chapter also analyses factors that justify why the aforementioned three case studies were chosen to represent maritime boundary delimitation issues facing Indonesia.

5.2 Indonesia-Malaysia

Even though the conclusion of a maritime boundary agreement with Malaysia was the first one signed by Indonesia, that treaty provided for only a partial delimitation of Indonesia and Malaysia's potential boundaries and the two States have yet to finalise their maritime boundaries (see Chapter 4, section 4.4). Indeed, more than forty years after the first agreement signed in 1969, Indonesia and Malaysia are still facing complicated issues concerning maritime disputes that prevent them from finalising the pending maritime boundary delimitations. Pending maritime boundaries between Indonesia and Malaysia exist with respect to the EEZ and territorial sea in the Malacca Strait, territorial sea delimitation in the Singapore Strait, EEZ delimitation in Natuna Sea (South China Sea), and in the Sulawesi Sea where territorial sea, EEZ and continental shelf issues have yet to be resolved. In addition to that, Indonesia and Malaysia also need to establish trijunction points with Singapore for territorial sea boundaries in the Singapore Strait (see also Chapter 4, section 4.4 and 4.5) and with Thailand for EEZ boundaries in the northern part of Malacca Strait (see Chapter 4 section 4.3). The contentious issues relating to the Indonesia-Malaysia boundaries in the Sulawesi Sea and Malacca Strait are outlined below and also dealt with in greater detail in Chapters 6 and 8.

5.2.1 Malacca Strait

When the seabed boundary in Malacca Strait was signed by Indonesia and Malaysia in 1969, the concept of the EEZ had not yet been recognised or codified in the international law of the sea. The EEZ concept was adopted formally for the first time in the LOSC in 1982. Accordingly, at the time of the 1969 seabed agreement, Indonesia and Malaysia did not sign any other agreement concerning water column jurisdiction and delimitation in the Malacca Strait beyond territorial sea of each State. As a consequence of the official recognition of EEZ concept by the LOSC, a delimitation of EEZ in the Malacca Strait came into play. Considering that the longest distance between the coast line of Malaysia and Indonesia in the Malacca Strait is considerably less than two times 200 nautical miles and the shortest one is less than two times 12 nautical miles,[808] delimitation is required for the whole area of Malacca Strait, from the northern part up to the southern part. In the southern part where distance between the two States is less than two times 12 nautical miles, delimitation of overlapping territorial sea rights is also required (see Figure 5.1 for illustration).

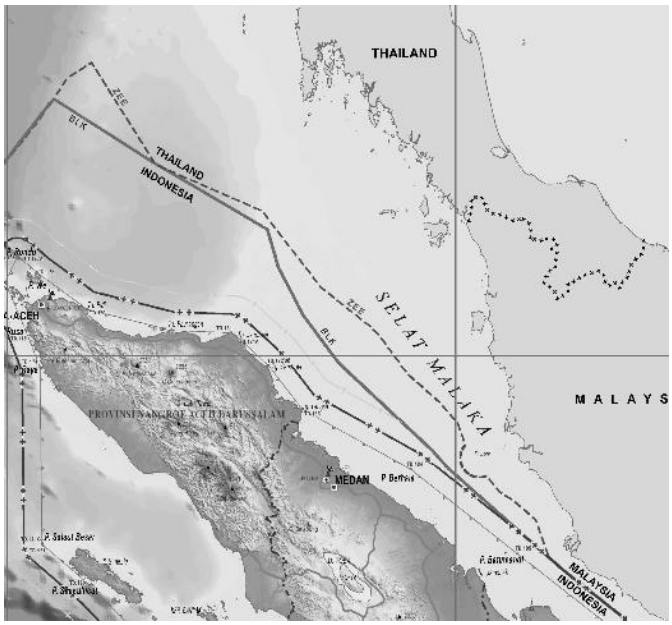

Figure 5.1 Maritime Boundaries between Indonesia and Malaysia in the Malacca Strait[809]

As highlighted previously, the 1969 seabed boundary between Indonesia and Malaysia in the Malacca Strait lies considerably closer to Indonesia than to Malaysia relative to respective coastline of each State. In 1969, Indonesia already claimed archipelagic

[808] Measurement is on BAC No. 4508 and Google Maps.
[809] *Peta NKRI*, 2010, see above note 640.

baselines while Malaysia had not declared any type of baselines other than normal. It is safe, therefore, to assume that in the 1969 delimitation, Indonesia employed archipelagic baselines and Malaysia on the other side used normal baselines. With this assumption, it is relatively easy to tell that the delimitation line lies in the Indonesian side of the median line between the Two States. Viewed from the law applicable at that time, which was the 1958 Geneva Convention, the delimitation is not in accordance with relevant provision concerning continental shelf delimitation. The 1958 Geneva Convention indicates that "[i]n the absence of agreement, and unless another boundary line is justified by special circumstances, the boundary is the median line, every point of which is equidistant from the nearest points of the baselines from which the breadth of the territorial sea of each State is measured."[810] However, the North Sea Continental Shelf Cases had come up with a different principle, which is natural prolongation. In deciding the continental shelf boundary case involving the Netherlands, Denmark and Germany, the ICJ introduced the principle of natural prolongation in defining continental shelf boundary.[811] In this case, distance was no longer relevant and it was a retreat from the use of equidistance line. With this in mind, the 1969 seabed boundary between Indonesia and Malaysia can be viewed in accordance with jurisprudence applicable during the time the agreement was concluded. This is with an assumption that the geology and geomorphology of the seabed in the area were in such a way to yield leading to the agreement. Unfortunately, the 1969 agreement does not provide relevant information regarding geology and geomorphology of the Malacca Strait.

Another way to analyse the 1969 agreement between Indonesia and Malaysia is by assessing baselines used in the delimitation. With an assumption that the 1969 maritime boundary is an equidistance line, in accordance with the 1958 Geneva Convention to which both States are parties,[812] baselines employed by each State during the delimitation process can be defined using 'reverse engineering' technique (see below). Spatial analysis of the boundary shows that Malaysia employed straight baseline in the construction of the boundary. It is worth noting, however, that this is a prediction using available geospatial data and information. It is a prediction since Malaysia has yet to

[810] 1958 Geneva Convention, Article 6 (1).
[811] The North Sea Continental Shelf Cases, 1969, *op cit.*
[812] Status as per 16 June 2013, Chapter XXI, Law of the Sea: 4. Convention on the Continental Shelf Geneva, 29 April 1958, available at, http://treaties.un.org/Pages/ViewDetails.aspx?src=UNTSONLINE&tabid=2&mtdsg_no=XXI-4&chapter=21&lang=en#Participants, accessed on 16 June 2013.

officially publish the location of its system of straight baselines. In line with this prediction, it is worth noting scholars have inferred the use of such straight baselines and the present author has undertaken spatial analysis to, in a sense, 'reconstruct' Malaysia's straight baselines.[813] The key publication in this context is Malaysia's *Peta Menunjukkan Sempadan Perairan dan Pelantar Benua Malaysia* [Map Showing the Territorial Waters and Continental Shelf Boundaries of Malaysia], often referred to as the *Peta Baru* [New Map] issued in 1979.[814] While the Peta Baru does not indicate the location of straight baselines directly, it does show the outer limits of Malaysia's territorial sea.[815] The location of Malaysia's straight baselines can be inferred from the straight edge limits to Malaysia's territorial sea as depicted on the Peta Baru. In short, by transposing the straight territorial sea limits depicted on the Malaysian map 12 nautical miles closer to shore Malaysia's straight baselines claim can be reconstructed. This process shows that Malaysia has issued straight baselines connecting, among others, Pulau Perak and Pulau Jarak, two small islands located in the Malacca Strait at around 80 and 36 nautical miles from the Malaysian peninsula, respectively.[816]

Analysis of Malaysia's apparent straight baselines in the Malacca Strait suggests that they are invalid for several reasons.[817] For example, it has been suggested that the designations of such baselines and territorial sea claims as depicted in the 1979 are invalid because they have "breached both the 1958 Geneva Convention and the Vienna Law of Treaties Convention." Moreover, the conclusion has been reached that the basepoints and baselines used "do not conform to 1982 UNCLOS Article 7." In addition, the designations and claims "restricted the rights of third-party states". Malaysia, according to the analysis, also published public documents and undertook actions inconsistent with its claims.[818] In the delimitation of pending maritime boundaries in the Malacca Strait, this issue of baseline is undoubtedly one of the important aspects to consider.

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[813] Forbes, V. L. 1995, see above note 85, p. 22. See also: Valencia, M. J., (2003), "Validity of Malaysia's baselines and territorial sea claim in the northern Malacca Strait", Marine Policy Vol. 27 pp. 367-373.
[814] *Peta Menunjukkan Sempadan Perairan dan Pelantar Benua Malaysia* [Map Showing the Territorial Waters and Continental Shelf Boundaries of Malaysia], Director of National Mapping, Rampaian 97, Cetakan 1-PPNM; Notification of a New Map of the Continental Shelf of Malaysia, Jil. 23, No. 26, Tambahan No.1, No.5745, 21 December 1979 (published in two sheets).
[815] Valencia, M. J. 2003, Validity of Malaysia's baselines and territorial sea claim in the northern Malacca Strait, *op cit*, p. 369.
[816] Measurement on BAC No. 1353 and Google Maps.
[817] Valencia, M. J. 2003, see above note 815.
[818] Valencia, M. J. 2003, see above note 815, p. 367.

As previously mentioned, Indonesia and Malaysia have yet to delimit EEZ boundaries in the northern part of Malacca Strait, where the distance between the two is more than 24 nautical miles. [819] The key issue confronting Indonesia and Malaysia with respect to delimitation in this area is that while Malaysia favours an EEZ delimitation line consistent with the existing continental shelf boundary (see Chapter 8), Indonesia is claiming an EEZ boundary line that does not coincide with the existing seabed boundary. Apparently, Indonesia will propose the use of equidistance line in the delimitation to establish an equitable EEZ boundary for the two neighbours, depicted in its national map depicting its 'forward position'.[820] According to Indonesia's position, the EEZ line would lie significantly to the north east, that is on the Malaysian side, of the seabed boundary line agreed in 1969. In constructing the equidistance line for EEZ boundary, Indonesia apparently gives full effect to its relevant archipelagic baselines in the Malacca Strait. The result of this analysis is in accordance with Indonesia's claim line which is clearly expressed in the *Peta NKRI*.[821] The map depicts Indonesia's forward position concerning maritime boundaries in areas where maritime boundaries are still pending. It is clear that the proposed EEZ line lies to the east, or Malaysian side, of the 1969 seabed boundary (see Figure 5.1).[822] It is estimated that area difference is around 3,870 square nautical miles with a distance between the seabed boundary and proposed EEZ boundary line at one point is more than 30 nautical miles.[823] This can also be seen as a confirmation that Indonesia acknowledges Malaysia's normal baselines, instead of straight baselines.

On the other hand, Malaysia prefers a single boundary line for seabed and EEZ, as depicted in its 1979 Map.[824] Meanwhile the EEZ boundary as proposed by Indonesia lies somewhere in the north and east of the 1969 seabed boundary. Accordingly, there is maritime space where these two States have overlapping claims over EEZ rights, something which undoubtedly complicates the management of resources in the area, particularly fisheries. In addition, there is evidence that Malaysia has been operating in the Malacca Strait as if the EEZ boundary has been established, coincident with seabed

[819] See also Haller-Trost, R. (1998), The Contested Maritime and Territorial Boundaries of Malaysia: An International Law Perspective (London: Kluwer Law International Ltd), pp. 23–32.
[820] Peta NKRI, 2013, see above note 640.
[821] *Ibid.*
[822] *Ibid.*
[823] Calculation was done using a keyhole markup language file of the two boundary lines with the assistance of KML Tool Project of the University of New Hampshire. Available at, <https://extension.unh.edu/kmlTools/index.cfm>, accessed on 20 May 2013.
[824] *Peta Baru* 1979, see above note 814.

boundary. For instance, Malaysian fishermen have been fishing in the waters located beyond its claimed territorial sea (as depicted on the 1979 Map) up the 1969 seabed boundary line. Accordingly, Malaysia's fishermen have frequently been apprehended by Indonesia's maritime enforcement agency in this disputed area of overlapping EEZ claims. The Malaysian fishermen, especially those based in the port of Hutan Melintang, located on the western coast of Peninsular Malaysia, have increasingly come to the disputed area because of the depletion of fish resources in Malaysian waters. In contrast, the fisheries resources towards the Indonesian side of the Malacca Strait are reportedly relatively underexploited.[825] Adding further problematic aspects to an already complex scenario, fishermen have often utilised environmentally-unfriendly and unsustainable fishing equipment and practices such as bottom trawl to exploit resources in the area.[826]

The aforementioned incidents and points of contention between Indonesia and Malaysia strongly suggest that jurisdictional certainty in the Malacca Strait through the delimitation of EEZ as well as seabed boundaries is vital. Indonesia and Malaysia are encouraged to negotiate more intensively to achieve a final and binding equitable solution for them. Notwithstanding the fact that these two States have different views regarding EEZ boundaries in the Malacca Strait, it is a fact that EEZ boundary has yet to be delimited. The two States have to respect this fact and hold themselves from exploring and exploiting resources in the unsettled maritime area until a relevant agreement is achieved. This is important to avoid unnecessary seizure of either Malaysians or Indonesians due to committing offence in the unsettled area. Soon after an agreement is achieved, Indonesia and Malaysia can conduct proper utilisation of marine resources within area assigned to each of them as well as, in all likelihood, consult on transboundary measures for the management of the inevitably shared or pooled living marine resources of the Malacca Strait. Certainty of EEZ boundary is important for coastal States have a strong interest in EEZ. As stated in the LOSC, a country's EEZ provides for "sovereign rights for the purpose of exploring and

[825] Num, M.J., (2009), Pirates, Barter Traders, and Fishers: "Whose Rights, Whose Security? User Conflicts and Maritime Nontraditional Security in Malaysian Waters" in Laipson, E. and Pandya, A. (eds) The Indian Ocean - Resource and Governance Challenges, The Henry L. Stimson Center, Washington, p. 21.
[826] *Ibid*.

exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil".[827]

As for the method of delimitation, consistent with recent developments in ocean boundary making on the part of international courts and tribunals (see Chapter 2) equidistance would seem to be an appropriate starting point for the delimitation of an EEZ boundary in the Malacca Strait. The next question is concerning type of baselines used in delimitation. As previously mentioned, there is an indication that Malaysia's inferred baselines ware considered in the 1969 delimitation. However, there is no official statement from Indonesia that it acknowledges Malaysia's straight baselines around the Malacca Strait. Indonesia's forward position regarding maritime boundaries in the Malacca Strait depicted in its official map further confirms that Indonesia acknowledges Malaysia's normal baselines. In addition, Malaysia has not made any official publication/declaration concerning its straight baselines. In this case, should a coastal States not make any other baseline claims, such coastal State will have normal baselines, which are coincident with the low-water line along its coast. [828] Having observed Malaysia's proposal on EEZ boundary, it is clear that it proposes EEZ boundary that is coincident with seabed boundary in the area. However, there is no indication of Malaysia's preference on the use of baselines. Indonesia for its part prefers that Malaysia is considered as employing normal baselines for the purpose of EEZ delimitation, instead of straight baselines. This is apparently the reason why EEZ boundary proposed by Indonesia significantly lie on the Malaysian side of the 1969 seabed. Were this to come to pass it would generate what would in all likelihood prove to be complicated situation in the management of the maritime space concerned since the seabed boundary and EEZ boundary would not coincide. That is a multijurisdictional maritime space would be created where seabed rights rest with to Malaysia, while sovereign rights over the water column would lie with Indonesia.

Were EEZ and continental shelf boundaries to be placed in different locations rather than being coincident (that is a 'single maritime boundary' solution as preferred by Malaysia) would be likely to have significant impacts with respect to the exploration and exploitation of natural resources in the Malacca Strait. This potential complication is similar to that in the Timor Sea due to different EEZ and seabed boundary lines

[827] LOSC, Article 55 (1) (a).
[828] Beckman, R. and Schofield, CH. (2009) "Moving Beyond Disputes Over Island Sovereignty" *op cit,* 5.

between Indonesia and Australia. A frequent cause of problems in this context has been a general lack of understanding among Indonesian fishers regarding what constitute sedentary species that are associated with the continental shelf and are therefore under Australian jurisdiction and are thus not subject to be taken through Indonesian fishing activities (without Australian permission via a licence or permit for instance). In the area of the Malacca Strait where, under the potential solution outlined above, the EEZ belongs to Indonesia while the seabed is for Malaysia, sedentary species should not be taken by Indonesian fishers. However, due to lack of understanding and also the use of types of fishing equipment that interact with the sea floor as well as passing through the water column, sedentary species, such as sea cucumbers may be taken accidentally. Alternatively, in some instances it must be acknowledged that Indonesian fishers intentionally attempt to take advantage of the jurisdictional uncertainty inherent in an unsettled maritime boundary and overlapping claims to illegally exploit Malaysian sedentary resources.

Having understood the position of Indonesia and Malaysia in EEZ boundary delimitation in the Malacca Strait, there are two possibilities: EEZ boundary coincident with seabed boundaries or not coincident. Even though it is unlikely that Indonesia will accept Malaysia's proposal of coincident maritime boundaries as it is, it should still be seen as an option. Malaysia for its part will undoubtedly put its best effort to convince Indonesia to accept the proposal. On the other hand, Indonesia is also clear with its forward position that EEZ boundary is not coincident with seabed boundary. Each option will bring its own consequences as discussed in Chapter 8.

Each of the aforementioned option has consequences. The first option, for example, offers simplicity in terms of practicality in boundary management, especially when it comes to resources utilisation. However, this option is not viewed as equitable, especially by Indonesia, for it lies on the Indonesian side of the median line, assuming that archipelagic baselines and normal baselines are employed by Indonesia and Malaysia respectively. Should Indonesia and Malaysia agree upon the second option, delimitation of an EEZ boundary which is different from their existing continental shelf boundary in the Malacca Strait, there are two important considerations. Firstly, there must be clarity in such a future agreement concerning the definition of sedentary species agreed on by both parties. In particular this can be achieved through listing specific species considered as sedentary within the text of the agreement. The list should

include, but need not be limited to, specific and common species in the area that are likely to be the subject of fishing activities. In other words, the agreement should specify detailed information on sedentary species in addition to the general definition provided by the LOSC. Secondly, information dissemination is essential for Indonesian and Malaysian fishers concerning the boundaries themselves and any agreement concerning the definition and exploitation of sedentary species. Not only that, this dissemination is also important for law enforcement agencies within both Indonesia and Malaysia. It is worth noting that on the Indonesian side alone, there are multiple institutions responsible for patrolling the maritime boundary areas such as the Ministry of Marine Affairs and Fisheries, the Indonesian Navy, and Police force. Effective information dissemination regarding the maritime boundary, related agreements and their implications for marine resources management in the Malacca Strait can be considered vital to enhancing coordination and cooperation among institutions tasked with surveillance, enforcement and management activities, as well as between the parties. A more detailed and comprehensive analysis of maritime boundary delimitation in the Malacca Strait is provided in Chapter 8 of the thesis.

5.2.2 Singapore Strait

In 1973, Indonesia and Singapore signed an agreement on part of the potential territorial sea boundary between them in the Singapore Strait.[829] A further 36 years passed before another agreement was signed on 10 March 2009 extending the 1973 segment of territorial sea boundary westward.[830] The 1973 agreement established six points while the 2009 one generated three additional points. The 2009 treaty provides for a 6.53 nautical miles of extension westward to the 1973 boundary line, which is 24.55 nautical miles in length.[831] Indonesia and Malaysia have yet to delimit their territorial sea boundary further eastward from point 6 of the 1973 agreement (see Figure 5.2). Not only Malaysia, Indonesia will need to negotiate with Singapore in order to complete the

[829] For a complete documentation of the "Agreement Stipulating the Territorial Sea Boundary Lines between Indonesia and the Republic of Singapore in the Singapore Strait", see The Geographer, 1974, Territorial Sea Boundary: Indonesia-Singapore, Limits in the Seas No. 60, 11 November.

[830] MFA, (2009), Press Release: The Signing of The Treaty Between The Republic of Indonesia and The Republic of Singapore Relating to The Delimitation of The Territorial Seas In The Western Part of The Singapore Strait, Jakarta, 10 March. Available at <http://www.deplu.go.id/_layouts/mobile/PortalDetail-PressReleaseLike.aspx?l=en&ItemId=c148acb8-88c6-4e24-9dd3-352ec9cd90c2>.

[831] Distances were calculated using a procedure of distance calculation between two points. Technically it was done with an assistance of Movable Type Scripts: Calculate distance, bearing and more between Latitude/Longitude points, available at <http://www.movable-type.co.uk/scripts/latlong.html>, accessed on 28 May 2013.

delimitation of maritime boundaries in the Singapore Strait as a whole. Accordingly, in a certain part of the strait, trijunction points are also required among the three neighbours in the region: Indonesia, Malaysia and Singapore.

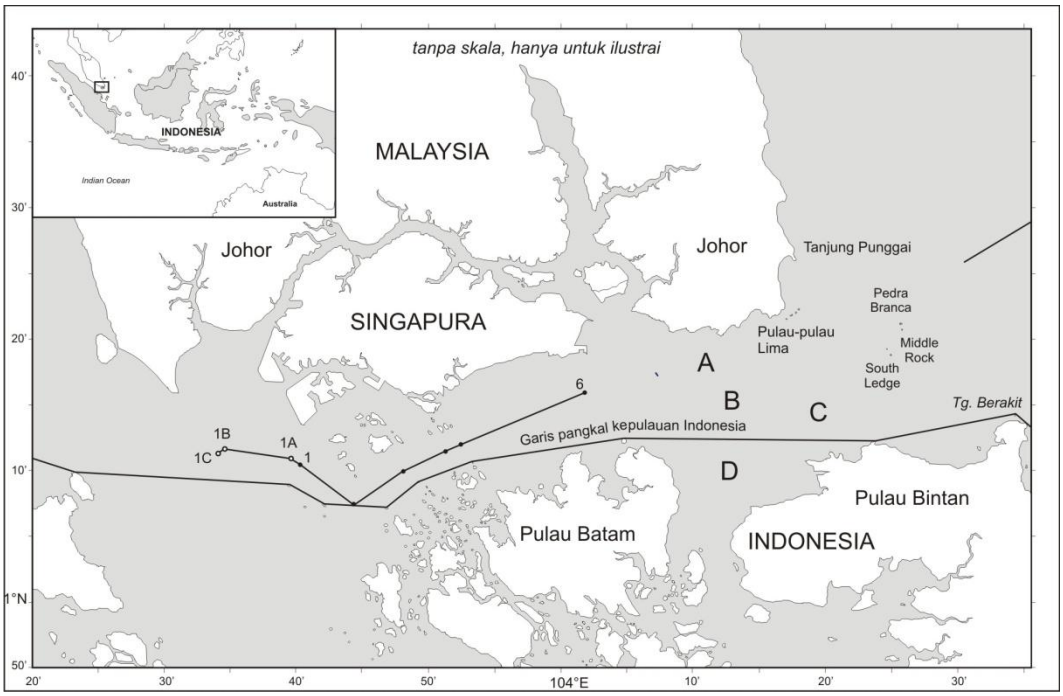

Figure 5.2 Maritime Boundaries between Indonesia and Malaysia and between Indonesia and Singapore in the Singapore Strait

Even though Indonesia established maritime boundaries with Malaysia and Singapore in the 1960s and 1970s, it was not until the late 2000s that maritime boundary segments in the Singapore Strait were addressed through further serious negotiations. One of the main reasons for this long hiatus in negotiation was the sovereignty dispute between Malaysia and Singapore concerning three islands/rocks in the eastern entrance of Singapore Strait: Pedra Branca/Batu Puteh, Middle Rock, and South Ledge. Malaysia and Singapore disputed the islands/rocks for nearly 30 years before sovereignty was decided by the International Court of Justice (ICJ) on 23 May 2008.[832] The ICJ's decision awarded Pedra Branca to Singapore, and Middle Rock was determined to be under Malaysian sovereignty. Meanwhile, sovereignty over the low-tide elevation, South Ledge was seemingly left somewhat unclear since the judgment only concludes that sovereignty over South Ledge "belongs to the State in the territorial waters of which it is located."[833] Even though the sovereignty over South Ledge has yet to define, it can be suggested, as the nearest above high-tide territory to the LTE is Middle Rocks

[832] Pedra Branca Case, see above note 73.
[833] Pedra Branca Case, see above note 73, para. 299.

under Malaysian sovereignty, on which South Ledge depends for its capacity to generate maritime claims consistent with Article 13 of the LOSC, that Malaysia may well have the stronger claim over this feature.

The 2008 decision of ICJ provides certainty concerning sovereignty over the three islands/rocks in the Singapore Strait. This can ideally generate a positive environment for the three States in the region to move forward to maritime delimitation. Clarity with regard to territorial sovereignty is an important requirement before States can proceed into maritime boundary delimitation. The future delimitation in the Singapore Strait and in the vicinity of waters off Indonesia's Tanjung Berakit will necessarily involve Indonesia, Malaysia, and Singapore. A key consideration will undoubtedly be the existence of the three islands/rocks and their potential role in the delimitation of maritime boundaries between them. Firstly, the status of the three geographical features is essential to determine, whether they are considered as islands or only rock according to the criteria set out by the LOSC (see also Chapter 2).[834] In addition, one of the features, South Ledge, is considered as a Low-Tide Elevation (LTE) which according to the LOSC. Such features are subject to a different regime as compared to islands and rocks, with consequent impacts on the maritime claims that can be made from them.[835] The delimitation of maritime boundary in the Singapore Strait will be significantly affected by these aforementioned considerations. Detailed analysis on the delimitation is provided in Chapter 7.

5.2.3 South China Sea

For the South China Sea, Indonesia signed a continental shelf boundary agreement with Malaysia in 1969[836] and with Vietnam in 2003.[837] The agreement consists of three segments, two of which are in the South China Sea. One of the two South China Sea segments is a median line between the Indonesian and Malaysian straight baselines (inferred for Malaysia), delimiting the seabed between Malaysian peninsula and Indonesia's islands in the South China Sea, starting at point 11 and terminating at point

[834] LOSC, Article 121.
[835] LOSC, Article 13.
[836] For a complete documentation of the agreement, see, Park, Choon-ho., (1993), Indonesia- Malaysia (Continental Shelf) in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1025-1027, Martinus Nijhoff Publisher, the Netherlands.
[837] McDorman, T.L. and Schofield, C.H. (2011), "Indonesia-Vietnam, Report Number 5-27, Agreement between the Government of the Socialist Republic of Vietnam and the Republic of Indonesia concerning the Delimitation, of the Continental Shelf Boundary" in Colson, D.A. and Smith, R.W. (eds), *International Maritime Boundaries* Volume VI, Martinus Nijhoff Publishers, The Netherlands.

20. The other South China Sea segment starts from the terminal point of the Indonesia-Malaysia land boundary at Tanjung Datu, the northern part of Borneo Island. The line starts at point 21 and heads northwardly and terminates at point 25 as illustrated by Figure 5.3.

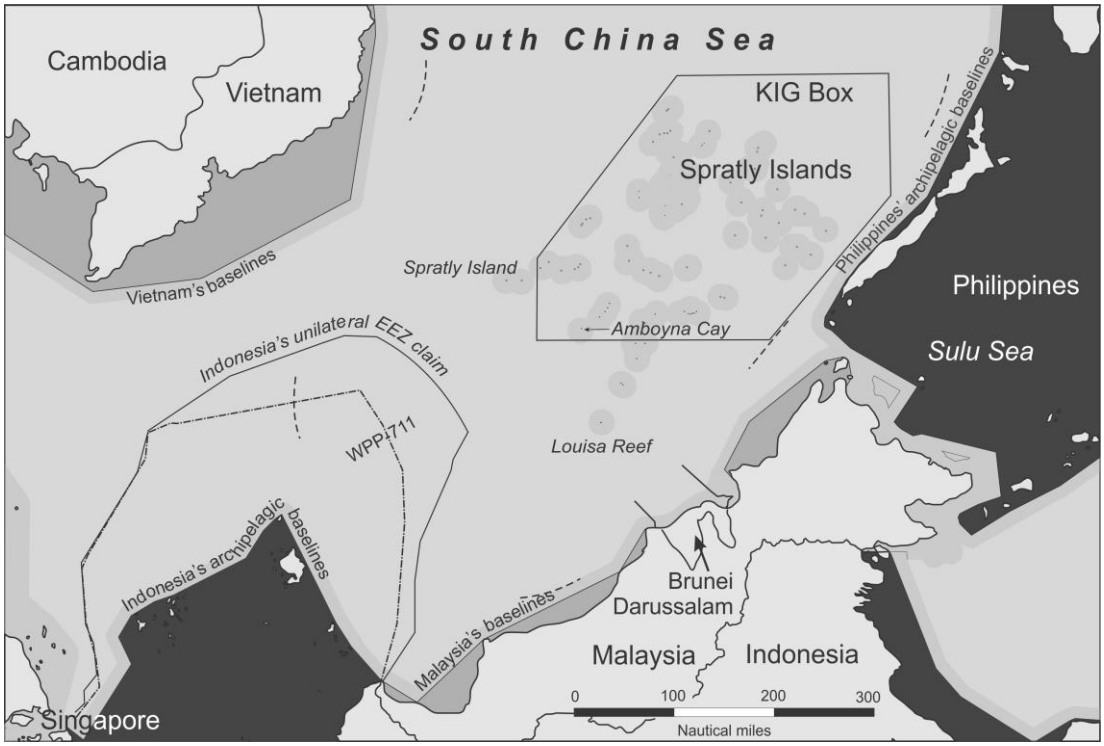

Figure 5.3 Maritime Boundaries among Indonesia, Malaysia and Vietnam in the South China Sea

In the South China Sea, Indonesia and Malaysia have only established seabed boundaries since the concept of EEZ, which deals with water column jurisdiction, had yet to be codified at the time of the agreement. Now, the two States are required to agree on EEZ boundaries for certainty regarding water column and resources therein. It will be intriguing to observe how Indonesia and Malaysia will approach the delimitation of EEZ boundaries in the future. Establishing EEZ boundary segments coinciding with the existing seabed boundary lines seems to be an option that the two States can consider. However, it is not impossible for them to opt for different alternatives where the EEZ boundaries do not coincide with the seabed boundaries. Considering that the segment starting from point 11 to point 20 is an equidistant one, it seems that an EEZ boundary segment coinciding with this seabed boundary segment in this area may be acceptable to both sides. Without special factors to consider in delimitation, equidistant

lines have frequently proven to offer an equitable solution for EEZ maritime boundaries.[838]

Meanwhile, the seabed boundary segment starting from Tanjung Datu at the northern part of Borneo Island is not an equidistant line. The seabed boundary segment is in the Indonesian side of the equidistant line, in favour of Malaysia. Accordingly, Indonesia might argue that it proposes a different EEZ boundary segment, which is not coincided with the existing seabed boundary segment. This possibility can be implied from the *Peta NKRI* published in 2008.[839] The map depicts that Indonesia seems to propose different EEZ boundaries in the South China Sea. Indonesia apparently bases its claim on the equidistance principle by giving full effect to its own archipelagic baselines. It is apparent from the 2008 map that the proposed position of EEZ boundaries by Indonesia in the South China Sea generates a significantly large maritime space, of approximately 25,000 square nautical miles, showing the difference between seabed boundaries and the proposed EEZ boundaries (see Figure 5.3).[840] It is intriguing to observe that the farthest point of EEZ boundaries claimed by Indonesia lies beyond 200 nautical miles from relevant basepoint, which is TD.030D on Pulau Sekatung (see Figure 5.3). The distance is more than 250 nautical miles and this is more than distance permitted by the LOSC for EEZ.[841] It can be guessed with confidence that the forward position depicted in the 2008 map was with a mistake. Apparently, the forward position was drawn purely on the basis of median line between Indonesia's baselines and Vietnam's coastline ignoring distance criteria of EEZ. As a result, an equidistance line was drawn but some points on the lines are in fact beyond 200 nautical miles from Indonesia's relevant basepoints. This unnecessary mistake was then revised in subsequent publication. Therefore the shape of Indonesia's unilaterally claimed EEZ in the South China Sea evolved as depicted in the 2008 map and other maps published later.[842] Indonesia's

[838] EEZ boundaries between Indonesia and Australia signed in 1997 is an example for this. See Treaty between the Government of Australia and the Government of the Republic of Indonesia establishing an exclusive economic zone boundary and certain seabed boundaries. See Prescott, JRV., (2002), "Australia-Indonesia, Report Number 6-2(6)" in Charney, J.I. and Smith, R. W. (eds) *International Maritime Boundaries*, pp. 2714-2727, Martinus Nijhoff Publishers, the Netherlands.
[839] *Peta NKRI*, 2008, see above note 640.
[840] Calculation was done using a keyhole markup language file of the two boundary lines with the assistance of KML Tool Project of the University of New Hampshire. Available at, <https://extension.unh.edu/kmlTools/index.cfm>, accessed on 20 May 2013.
[841] Distance was measured on *Peta NKRI*, 2008.
[842] See above note 820.

current official forward position is the one depicted in the 2010 map which does not change in maps published subsequently.

Even though the forward position has been revised, the 2008 map had, unfortunately, been used to defined Indonesia' fisheries management zone or Wilayah Pengelolaan Perikanan (WPP) before it was finally revised.[843] The idea of the WPP map is to divide Indonesian waters (archipelagic waters, territorial sea and EEZ) into 11 zones and the one in the South China Sea is assigned as WPP 711 (see Figure 5.3). For areas where maritime boundaries have yet to settle, unilateral claims serve as the outer limits of WPP and this is also the case for the South China Sea. As a result, Indonesia's current WPP map is the same as the 2008 forward position, some points of which lie beyond 200 nautical miles from Indonesia's relevant basepoints. Even though Indonesia' forward position has been revised, the WPP map, which is governed by the Ministry of Maritine Affairs and Fisheries' Regulation number 1 of 2009, remains the same. This can be another source of problem in the future (see Chapter 7).

In comparison to the 1969 seabed boundary segment, especially the one starting from Tanjung Datu, the proposed EEZ boundary segment, the revised version, lies closer to Malaysia. Apparently, the proposed positions/claims are constructed using a strict equidistance line principle considering Indonesia's archipelagic baselines and Malaysia's normal baselines. It is in Indonesia's view, as previously mentioned, that Malaysia's baselines are normal for Malaysia has not declared any other types of baselines. It has been widely accepted that, if a state does not publish any type of baselines, then the state employs normal baselines.[844] On the hand, Malaysia's use of straight baselines has been acknowledged even without formal declaration. The Geographer, for example, in one of its analysis regarding Indonesia-Malaysia seabed boundaries in the South China Sea depicts Malaysia's straight baselines along the northern coast of Sabah and Sarawak.[845] These inferred baselines have also been confirmed by Malaysia by showing them on a map illustrating a submission (done jointly with Vietnam) of the outer limits of the continental shelf beyond 200 nautical

[843] Ministry of Marine Affairs and Fisheries Regulation Number 1 of 2009 on Fisheries Management Areas (WPP).
[844] Beckman, Robert and Schofield, Clive (2009) 'Moving Beyond Disputes Over Island Sovereignty' *op cit*, 5.
[845] The Geographer, (1970), Indonesia – Malaysia Continental Shelf Boundary, Limits in the Seas No. 1, 21January 1970.

miles from baselines for the seabed area in the South China Sea.[846] Therefore, it is safe to say that Malaysia is likely to propose the use of straight baselines in EEZ delimitation with Indonesia in the South China Sea. The impact of these straight baselines on maritime boundary delimitation is, however, in insignificant since the construction of the EEZ boundary line is controlled mainly by the most salient points representing Malaysia's basepoints, or in this case, turning points of its straight baselines. This leads to a conclusion that the use of Malaysia's normal or straight baselines will make insignificant difference to EEZ boundary options between Indonesia and Malaysia in maritime areas around Tanjung Datu. Should the boundary be defined using the principles of equidistance line, it will be similar to Indonesia's current proposal. However, once again, it is Malaysia's freedom to propose EEZ boundary lines that are coincident with the existing seabed boundaries and this should be seen as one of possible options. In a real negotiation between Indonesia and Malaysia, the use of baselines is apparently to become one of the sources of contention.

5.2.4 Sulawesi Sea

The land boundary line between Indonesia and Malaysia in Borneo crosses Sebatik Island, along the parallel line of 4° 10' N and terminates at the east coast of the island.[847] This terminal point of the two States international land boundary on the coast is likely to serve as the starting point of maritime boundary line between Indonesia and Malaysia, dividing maritime area in the Sulawesi Sea. That the land boundary between Indonesia and Malaysia has been delimited and demarcated and is therefore undisputed is a positive starting point for maritime delimitation in the Sulawesi Sea.[848] Also of assistance in this context is the fact that Indonesia and Malaysia's sovereignty dispute over two small islands in the Sulawesi Sea, Pulau Sipadan and Ligitan, has been resolved through a Judgment of the International Court of Justice in 2002.[849] However,

[846] Commission on the Limits of the Continental Shelf (CLCS), Outer limits of the continental shelf beyond 200 nautical miles from the baselines: Submissions to the Commission: Joint submission by Malaysia and the Socialist Republic of Vietnam, available at <http://www.un.org/Depts/los/clcs_new/submissions_files/submission_mysvnm_33_2009.htm>, accessed on 20 May 2013.
[847] Sipadan and Ligitan Case, see above note 70.
[848] Convention between Great Britain and the Netherlands Defining the Boundaries in Borneo, June 20, 1891; Agreement between the United Kingdom and the Netherlands relating to the Boundary between the State of North Borneo and the Netherland Possessions in Borneo, September 28, 1915; Convention between His Majesty in respect of the United Kingdom and Her Majesty the Queen of the Netherlands respecting the Delimitation of the Frontier between the States in Bomeo under British Protection and Netherlands Territory in that Island, March 26, 1928.
[849] See above note 847.

as of the time of writing, Indonesia and Malaysia have yet to delimit their maritime entitlement in the Sulawesi Sea. Both States have conducted negotiations concerning the delimitation but have yet to achieve a final and binding agreement.

The situation in the Sulawesi Sea has been complicated by the existence of oil-rich field/block that is known as Ambalat. The Ambalat Block has been a source of tension between the two neighbours since 2005.[850] In 2009, the issue re-emerged and caused even more serious tension between the two neighbours.[851] The overlapping claims between Indonesia and Malaysia in the Sulawesi Sea seem to be the major issue and reason of the dispute. An additional contributing factor is the role of the formerly disputed islands, Pulau Sipadan and Pulau Ligitan, in the delimitation of the parties' maritime boundary even though the issue of sovereignty over these features is no longer contested. The maritime boundary delimitation in the Sulawesi Sea is one of the case studies analysed in this research. Detailed analysis on the issue can be found in Chapter 6 of this thesis. Analysis concerning the history of dispute is provided. Furthermore options of delimitation in the region are provided by considering legal and technical aspects.

5.3 Indonesia-Singapore

As previously mentioned, Indonesia and Singapore have yet to finalise maritime boundary delimitation in the Singapore Strait. The two neighbours signed the first agreement in 1973[852] and the second one in 2009.[853] The completion of maritime boundary delimitation in the Singapore Strait will inevitably involve Malaysia sine the three States are geographically closed and all are entitled to territorial sea in the strait. The delimitation of maritime boundary in the Singapore Strait involving Indonesia, Malaysia and Singapore is another case study analysed in this thesis. Detailed discussion on the challenges and opportunities in the delimitation is provided in Chapter 7.

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[850] For a comprehensive analysis on the Ambalat Block issue, see, Arsana, I Made Andi. 2010. "The settlement of the Ambalat block case through maritime delimitation; A geospatial and legal approach [in Indonesian]", Jurnal Ilmiah Widya Sosiopolitika Vol. I No. 1 (June): pp. 46-58.
[851] *Ibid.*
[852] For a complete documentation of the "Agreement Stipulating the Territorial Sea Boundary Lines between Indonesia and the Republic of Singapore in the Singapore Strait", see The Geographer, 1974, Territorial Sea Boundary: Indonesia-Singapore, Limits in the Seas No. 60, 11 November 1974.
[853] Schofield, C.H., McDorman, T.L. and Arsana IMA, 2013, see above 724.

5.4 Indonesia-Vietnam

As previously highlighted in subsection 5.2.3, in the South China Sea, Indonesia also needs to delimit maritime boundaries with Vietnam. The first agreement signed on 23 June 2003 is on continental shelf and has been ratified by Indonesia in 2007 (see Chapter 4).[854] The continental shelf boundary segment closes the gap left by the 1969 Indonesia-Malaysia seabed boundary agreement (see Figure 5.3). The segment connects point 20 and point 25 of the 1969 agreement and generates four turning points in between.

Similar to Indonesia and Malaysia's maritime boundaries in the South China Sea, Indonesia and Vietnam have yet to delimit their EEZ boundaries in the region although continental shelf delimitations have been achieved. It is interesting to observe why Indonesia and Vietnam did not delimit EEZ boundaries together with the seabed delimitation in 2003. It is indeed possible for Indonesia and Vietnam to treat their continental shelf and EEZ boundaries as one package in the delimitation. However, the fact is that the two States decided to delimit only seabed boundaries and left EEZ boundaries for later. This decision is likely to be directly related to ocean resources utilisation considerations and particularly access to seabed energy resources. Of particular relevance in this context is that the seabed area around Natuna Island, which is close to the seabed boundary delimited in 2003, has proven to be energy resource-rich and the States in question have, unsurprisingly in view of their own increasingly pressing energy security concerns,[855] great interest in pursuing oil and gas exploration and, ideally, exploitation activities in the area delimited by their continental shelf boundary of 2007. Accordingly, seabed/continental shelf boundary delimitation was viewed as more urgent than EEZ boundaries and was addressed first.

It is clear from maps depicting Indonesia's forward position that Indonesia prefers an EEZ boundary segment which is different from that of continental shelf delimited in 2003. The *Peta NKRI* released in 2008 shows Indonesia's 'forward position' regarding this EEZ boundary.[856] The entire EEZ boundary segment proposed by Indonesia with Vietnam lies significantly to the north of the existing 2003 continental shelf. A technical, spatial analysis utilising Indonesia's map showing its forward position

[854] McDorman, T.L. and Schofield, C.H. (2011), *op cit*.
[855] Owen, N.A. and Schofield, C.H., (2012) "Disputed South China Sea Hydrocarbons in Perspective", Marine Policy, Vol.36, No.3, p. 815.
[856] *Peta NKRI*, 2008, see above note 640.

indicates that the EEZ boundary proposal has been constructed using the principle of equidistance line. By analysing the segment in question using CARIS LOTS with Indonesia's official *Peta NKRI*,[857] it is evident that the line was constructed by giving full effect to Indonesia's archipelagic baselines and Vietnam's normal baselines. Accordingly, the line lies further north compared to the existing seabed boundaries. As previously discussed, Indonesia's 'forward position' published in 2008 has now been revised to comply with relevant provision in the LOSC regarding 200 nautical miles limits of EEZ (see subsection 5.2.3).

On the other hand, Indonesia has never sent any protest note regarding Vietnam's straight baselines that it deposited to the UN on 9 December 2004.[858] This implies that Indonesia recognises the straight baselines and has no objection on the way the baselines are designated though this is not conclusive proof of this position in the absence of an official statement on the part of Indonesia to this effect. One important thing to note is that recognition on a designation of straight baselines does not necessarily means an agreement to consider such baselines in maritime boundary delimitation. This is apparently what happens to Indonesia. Even though Indonesia did not send a protest note regarding Vietnam's straight baselines, Indonesia prefers not to consider the straight baselines in EEZ delimitation in the South China Sea. This position can clearly be seen from its forward position regarding EEZ boundary depicted in its official maps.[859] This is not baseless since there are cases that one State does not always recognise the straight baselines of another State it deals with in maritime delimitation. Alternatively, the two States may agree on other basepoints to be used for establishing straight baselines for delimitation purposes.[860]

Indonesia's proposed EEZ boundary in the *Peta NKRI*[861] clearly shows that Indonesia would prefer not to have single boundary line for continental shelf and EEZ. According

[857] *Peta NKRI*, see above note 640
[858] Vietnam deposited the list of geographical coordinates of points, using the geodetic system ITRF-96 on 9 December 2009. The coordinates are listed in M.Z.N. 52. 2004, which are also specified in the Agreement between the Socialist Republic of Viet Nam and the People's Republic of China on the Delimitation of the Territorial Sea, the Exclusive Economic Zone and Continental Shelf in the Gulf of Tonkin, which was signed by the two countries on 25 December 2000, and took officially effect on 30 June 2004.
[859] See above note 820.
[860] United Nations (2000) Handbook on the Delimitation of Maritime Boundaries, New York, United Nations, Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, UN Publication Sales No. E.01.V.2: 32.
[861] *Peta NKRI*, see above note 640

to the proposal, there will be an area where the seabed belongs to Vietnam, while water column is under Indonesia's control. This is similar to what has been agreed between Indonesia and Australia in the Timor Sea, as discussed in Chapter 4 (section 4.8) of this thesis. Should this proposal be agreed to by Vietnam, Indonesia may view this as an achievement since it can secure a substantially larger EEZ compared to the seabed it secured through the 2003 agreement. However, the situation might be problematic since there will be maritime area in which Vietnam has control only over the seabed and subsoil and resources therein, while Indonesia controls the water column superjacent to the seabed. The utilization of ocean resources and management of such a jurisdictionally complex maritime space might be one of the potential problems resulting from such an arrangement.

5.5 Indonesia-The Philippines

Indonesia and the Philippines share maritime area in the Celebes Sea circled by Indonesia's Kalimantan and Sulawesi and Mindanao and groups of southern islands of the Philippines. The area in question extends from approximately 119° 9' E to 127°31' E and from 2° 28' N to 6° 21' N. Both Indonesia and the Philippines are archipelagic States which have designated their archipelagic baselines. Indonesia deposited list of geographical coordinates of its final basepoints on 11 March 2009,[862] while the Philippines did it on 21 April 2008.[863] Indonesia and the Philippines have not settled any maritime boundary agreements between them and at the time of writing are currently on negotiation.[864]

Important issue that Indonesia and the Philippines might face in the negotiation is the fact that the Philippines bases its maritime claims on three colonial treaties defining the

[862] M.Z.N.67.2009.LOS of 25 March 2009: Deposit of a list of geographical coordinates of points of the Indonesian Archipelagic Baselines based on the Government Regulation of the Republic of Indonesia Number 38 of 2002 as amended by the Government Regulation of the Republic of Indonesia Number 37 of 2008. Available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/mzn_s/mzn67.pdf>

[863] M.Z.N. 69. 2009. LOS of 21 April 2009: Deposit of the list of geographical coordinates of points as contained in Republic Act No. 9522: An Act to Amend Certain Provisions of Republic Act No. 3046, as Amended by Republic Act No. 5446, to define the Archipelagic Baselines of the Philippines, and for Other Purposes. Available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/mzn_s/mzn69.pdf>

[864] MFA, (2010), Press Release: Indonesia Sent a Diplomatic Note Conveying Protest to Malaysia. Available at <http://www.deplu.go.id/Pages/News.aspx?IDP=3878&l=en>

Philippine territorial boundaries.[865] One of the treaties is Paris Treaty of 1898, which allow the Philippines to claim territorial sea within a box defined by the 1898 treaty. This surely has been contested since it is clearly a breach the LOSC that defines a twelve-nautical-mile territorial sea, which the Philippines ratified on 8 May 1984.[866] However, the designation of the Philippines' archipelagic baselines in 2008 seems to clarify its position to be compliant to the LOSC. Meanwhile, Indonesia is firm with its position that the negotiation of maritime boundaries should be in accordance with the LOCS, to which both of the States are party to.[867]

The closest distance between Indonesia's archipelagic baselines and the Philippines' archipelagic baselines in one particular location is more than 35 nautical miles.[868] This allows both Indonesia and the Philippines to claim a twelve-nautical-mile territorial sea without requiring any delimitation. Accordingly, the two States will require delimiting their EEZ and continental shelf.

The Philippines is the only archipelagic State Indoensia needs to delimit maritime boundaries with. Both have deposited their respective archipelagic baselines to the United Nations.[869] Even though the archipelagic baselines designation attracted protests internally, no protest, so far from neighbouring States including Indonesia. Even though this silence does not necessarily mean that Indonesia accepts the baselines, it is safe to assume that Indonesia recognizes the Philippines' archipelagic baselines. Accordingly, in maritime boundary delimitation, apparently Indonesia will accept the Philippines' proposal to consider its archipelagic baselines. For its part, Indonesia will also propose the use of its archipelagic baselines.

Indonesia and the Philippines need to settle both EEZ and continental shelf boundaries between them. Relevant provision governing the delimitation of EEZ and continental shelf are Articles 74 and 83 of the LOSC, respectively. Both govern the need to achieve an equitable solution in maritime boundary delimitation.[870] The first thing to consider is whether Indonesia and the Philippines will define a single maritime boundary for their

[865] For a comprehensive analysis on this matter, see: Bautista, L. B. (2008). The Historical Context and Legal Basis of the Philippine Treaty Limits, 10 ASIAN-PACIFIC LAW & POLICY JOURNAL, pp. 1 - 31.
[866] Chronological lists of ratifications of LOSC, see above note 221.
[867] See above note 866.
[868] Measurement on Google Earth after visualizing .
[869] The Philippines deposited in 2008, while Indonesia deposited its baselines in 2009. See above note 862 and 863.
[870] LOSC, Article 74 on the delimitation of EEZ and Article 83 on the delimitation of continental shelf.

EEZ and continental shelf or, instead, define different boundary line for each maritime regime. Indonesia, for its part, apparently prefers to have a single maritime boundary for EEZ and continental shelf, as depicted on its official map.[871] This option should also be attractive to the Philippines for practical and pragmatic consideration. With a single maritime boundary, border management tends to be less complicated compared to having two different lines for EEZ and continental shelf.[872] This will also save resources (time, financial expenses) to negotiate. In addition recent jurisprudences indicate that a single maritime boundary for EEZ and continental shelf is preferable. Maritime boundaries between Romania and Ukraine in the Black Sea,[873] and maritime boundaries between Bangladesh and Myanmar,[874] are two recent examples of the approach. An exception of this can be seen in Indonesia-Vietnam seabed boundaries signed in 2003 where only seabed boundaries were delimited and EEZ boundaries were left unsettled in the South China Sea. [875] This is due to, among others, the fact the negotiation started in 1978 when EEZ regime was not yet officially recognised in the international law. Even though the agreement was signed in 2003 when EEZ and continental shelf both were part of the LOSC, the two States apparently agreed to simply agree upon matters that they started in 1978.[876]

Another technical consideration in the future Indonesia-Philippines maritime boundary delimitation is the choice of relevant basepoints of Indonesia and the Philippines. Even though there is no obligation to use all relevant existing basepoints in delimitation, the employment of archipelagic baselines of both sides is apparently acceptable. For both are archipelagic States, it would be unfair if one party proposes its archipelagic baselines to use while rejecting the use of other party's archipelagic baselines. Once the use of baselines have been agreed, the next step is to define basepoints forming relevant baselines for both States, with a reference to the official list of coordinates of basepoints of each State.

The next technical issue is the definition of potential trijunction point among Indonesia, the Philippines and Malaysia in the Sulawesi Sea. This tripoint will serve as a starting

[871] See above note 820.
[872] See above note 838.
[873] Black Sea Case, see above note 316.
[874] Bay of Bengal Case, see above note 327.
[875] Arsana, IMA. (2007), *International Maritime Boundaries*: A Technical and Legal View [*in Indonesian*], Gadjah Mada University Press, Yogyakarta.
[876] MFA. (2010). "Indonesia sent a diplomatic note conveying protest to Malaysia", accessed from <http://www.deplu.go.id/Lists/News/ DispForm.asp?ID= 3878&l=en> on 20 February 2011

point of Indonesia-Philippines heading easterly in the Sulawesi Sea. This trijunction point can be defined by establishing is a point equidistant from three relevant basepoints of Indonesia, the Philippines and Malaysia. Should this approach be adopted in defining the trijunction point, the point is technically a centre of a circle the perimeter of which touches one basepoint in every State. For this purpose, relevant basepoint of Malaysia is also critical to define. For Malaysia is a continental State and has not declared any type of baselines other than normal baselines in the area, it is safe to assume that Malaysia's basepoint to be selected is the one along its normal baseline represented by a low-water line.

Another legal and technical consideration is the choice of method in delimitation. Pursuant to Articles 74 and 83 of the LOSC, there is no obligation to implement any particular method, but to achieve an "equitable solution". Considering that distance between opposite coast of Indonesia and the Philippines is less than 400 nautical miles apart, it is irrelevant to consider geology/geomorphology of the seabed in maritime delimitation. This is in accordance with ICJ's decision on the Libya/Malta case where natural prolongation was not considered.[877] The main consideration in the delimitation is therefore coastal geography. Comparison of coastal length between Indonesia and the Philippines can be a relevant factor to consider. A geospatial analysis shows that the proportion relevant baseline length of Indonesia and the Philippines is approximately 1.36 to 1. Figure 5.4 illustrates the difference between strict median line and a modified one with a consideration to coastal length proportion.

[877] Case Concerning the Continental Shelf (Libya Arab Jamahiriya/Malta), Judgment of 3 June 1985, ICJ Reports,13, [hereinafter Libya/Malta Case], para. 39, available at www.icj-cij.org.

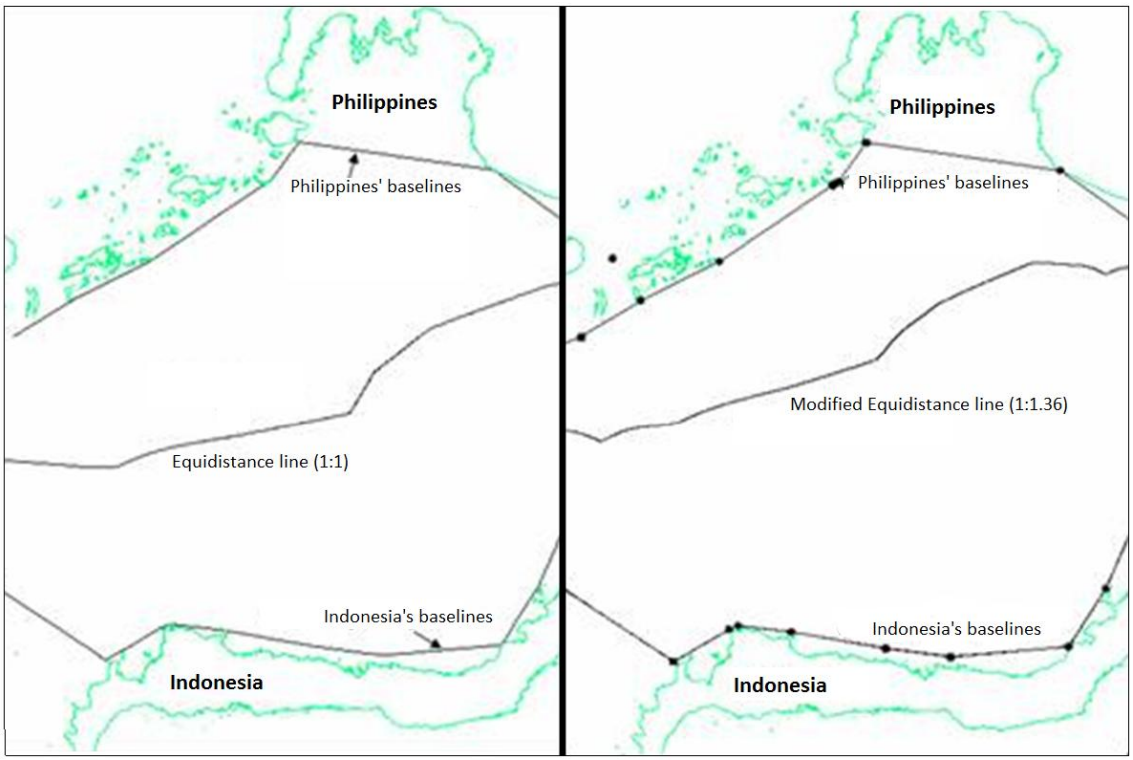

Figure 5.4 Comparison between Strict and Modified Median Line Considering Proportion of Baselines Length between Indonesia and The Philippines[878]

Coastal length proportion appears to be a justification for Indonesia to propose an EEZ boundary line that lies on the Philippines side of median line, as depicted on its official map of 2008 and other maps published subsequently.[879] The line depicted on the map lies slightly to the north of median line between Indonesia and the Philippines. Geospatial analysis on the map reveals that the line that Indonesia proposes does not accurately reflect the proportion of coastal length between the two as illustrated by Figure 5.5. It appears that the line Indonesia proposes is an adjusted line based on ongoing negotiation with the Philippines. It is unclear, however, how Indonesia precisely arrive at the option line, which lies between a line by considering coastal length proportion and the strict median line between Indonesia and the Philippines. At the time of writing, Indonesia and the Philippines were undergoing negotiation on maritime boundary delimitation between them.

[878] Illustration by the author.
[879] See above note 820.

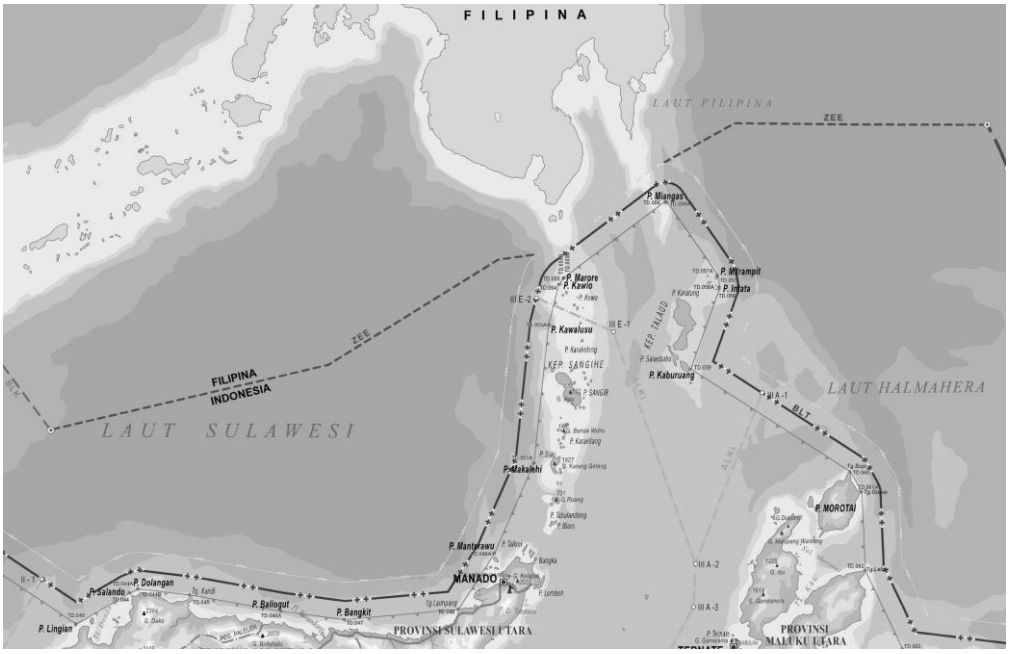

Figure 5.5 Indonesia's Forward Position regarding EEZ/Continental Shelf Boundaries with the Philippines[880]

5.6 Indonesia-Palau

Palau is arguably among the least known States among Indonesia's neighbours. Not many Indonesians are aware that Indonesia share maritime areas with Palau, the name of which is not even familiar. According to the Central Intelligence Agency (CIA) Fact Book,[881] Palau is a group of islands in the North Pacific Ocean, southeast of the Philippines. It is an archipelagic State even though it has not proclaimed any archipelagic baselines.[882] Palau covers an area extending from approximately 2° 47' N to 9° 30' N and from 130° E to 136° E, and is a federal State consisting of sixteen states across the archipelago.[883] Both Indonesia and Palau claim a 200-M EEZ and the claims overlap one another since the shortest distance between the two is around 100 M, from the southern tip of Palau's Helen Island and Indonesia's Pulau Fani, where one of Indonesia's basepoints is located.[884] With this geographical circumstance, it can be confirmed that Indonesia and Palau need to delimit their EEZ and continental shelf rights.

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[880] *Peta NKRI*, 2010, see above note 640.
[881] The Word Fact book of CIA – Palau. Available at <https://www.cia.gov/library/publications/the-world-factbook/geos/ps.html>
[882] Bautista, Lowell B., The legal status of the Philippine Treaty Limits and territorial waters claim in international law: national and international legal perspectives, Doctor of Philosophy thesis, Australian National Centre for Ocean Resources 8: Security - Faculty of Law, University of Wollongong, 2010. http: / / r0.uow.edu.au/theses/ 3081. p. 266.
[883] The Official website of the Government of Palau. Available at <http://www.palaugov.net/>
[884] Measurement was conducted on *Peta NKRI*, 2010, see above note 640.

Similar to the Philippines, Indonesia has not yet settled any maritime boundaries with Palau. However, in 2009 the Indonesian Ministry of Foreign Affairs started negotiation with Palau concerning maritime boundaries between them.[885] To realise this, the first negotiation meeting has been conducted between Indonesia and Palau in Manila on Thursday, 22 April 2010.[886] Unfortunately, result of the negotiation is unable to be obtained for the purpose of this thesis. However, it has been confirmed by the Indonesian Minister of Foreign Affairs that Indonesia is taking the maritime boundary negotiation with Palau seriously, along with negotiation with other neighbours. As stated in the Press Conference on 18 August 2010, "the Ministry of Foreign Affairs has been continuously conducting a series of negotiations to discuss further about the pending matters concerning the border areas Indonesia shares with its neighbouring countries."[887]

An analysis published in Maritime Briefing in 2000 provides an option of maritime boundary delimitation between Indonesia and Palau. The analysis provides the possibility of median line or equidistance line to be used for the delimitation.[888]

On 24 June 2008, Palau deposited a chart to the United Nations entitled "Republic of Palau – Maritime Boundary Contention" showing its 200-nautical-mile outer limit of the EEZ, as well as the line of delimitation between the Republic of Palau and the Federated States of Micronesia, as contained in the 2006 Palau-Federated States of Micronesia Maritime Boundary Treaty.[889] The deposit also contains the lists of geographical coordinates of points, specifying the geodetic datum, relating to the aforementioned Palau's 200-M limit of EEZ and the line of delimitation between the Republic of Palau and the Federated States of Micronesia. In addition, the chart also shows Palau's proposal regarding the EEZ boundary between Palau and Indonesia. The list of coordinates of points constructing the boundary lines is also provided.

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[885] MFA, (2009). Foreign Policy, Vision and Mission. Available at <http://www.deplu.go.id/Pages/Polugri.aspx?l=en>.
[886] Indonesian Embassy to the Philippines, (2010), Negotiation on Maritime Delimitation between the Republic of Indonesia and the Republic of Palau, Manila. Available at <http://www.deplu.go.id/manila/Pages/EventDisplay.aspx?IDP=11&l=id>, accessed on 20 May 2011.
[887] MFA, (2010), Press Release: Indonesia Sent a Diplomatic Note Conveying Protest to Malaysia. Available at <http://www.deplu.go.id/Pages/News.aspx?IDP=3878&l=en>.
[888] Undelimited maritime boundaries in the Pacific Ocean excluding the Asian Rim By John Robert Victor Prescott, Grant Boyes, International Boundaries Research Unit, p. 33-34.
[889] See, Palau - Submission in Compliance with the Deposit Obligations Pursuant to the United Nations Convention on the Law of the Sea (UNCLOS) M.Z.N.62.2008.LOS of 24 June 2008. Available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/mzn_s/mzn62.pd>.

Meanwhile, in the *Peta NKRI*,[890] Indonesia reveals its unilateral EEZ boundary claim which lies significantly close to Palau's Tobi Island (3°0'22.55"N 131° 7'26.28"E) and Helen Island (2°53'23.52"N 131°47'22.75"E). By spatially analysing Indonesia's official map showing its forward position, it is apparent that Indonesia defined its EEZ boundary with Palau by drawing a 200 nautical miles limit from its archipelagic baselines and gives Tobi Island and Helen Reef only a 12 nautical miles territorial sea. Consequently, the EEZ boundaries claimed by Indonesia form a 'pouch' or even semi-enclave of EEZ for Palau around Tobi Island and Helen Reef at the 'bottom' (southern extension) of the pouch. This 'pouch' also indicates that Indonesia gives less than full effect (or indeed, largely ignores) not only to the two islands/reefs but also to larger islands such as Pulo Anna (4°39'19.40"N 131°57'2.77"E) and Merir (4°18'49.46"N 132°18'39.86"E). Indonesia's consideration in constructing the lines seems to be that those islands of Palau are relatively small so that giving them full effect may result in inequitable maritime boundaries. As decided by the Court of Justice that a small island should not give a "disproportionate effect" to maritime delimitation.[891] While it is undisputable that Indonesia does not give full effect to (or even completely ignore) Palau's small islands in constructing its EEZ boundary proposal as shown in *Peta NKRI*,[892] reasons behind this proposal is however, not clear. This line, if used as the basis/reference in a real maritime boundary negotiation by the Indonesian delegation, is highly likely to be challenged by Palau.

By overlaying two charts/maps showing Palau and Indonesia's unilateral claims, it is clear that the two claims overlap one another (See Figure 5.6).[893] The area of overlapping claims is approximately 76,700 M² (equal to around 263,000 km²). The spatial analysis also confirms that Palau's unilateral position is based on median line between Indonesia and Palau with normal baselines employed by both States. This line is not significantly different from a median line constructed using Indonesia's archipelagic baselines. Therefore, the use of either normal or archipelagic baselines for Indonesia does not seem to be the most important subject in maritime boundary delimitation between Indonesia and Palau. On the other hand, Indonesia's unilateral

[890] *Peta NKRI*, see above note 640.
[891] ICJ, (2001) Case concerning Maritime Delimitation and Territorial Questions between Qatar and Bahrain (Qatar V. Bahrain), Judgment of 16 March 2001. para. 219, p. 68-73.
[892] *Peta NKRI*, see above note 640
[893] Geospatial analysis is conducted using Indonesia's *Peta NKRI* 2010 and Palau's deposited chart of 2008 with CARIS LOTS™ software.

claim is apparently not based on any form of median line but a 200 nautical miles from baselines and by ignoring Palau's small islands/reefs (i.e. giving them only a 12 nautical miles territorial sea).

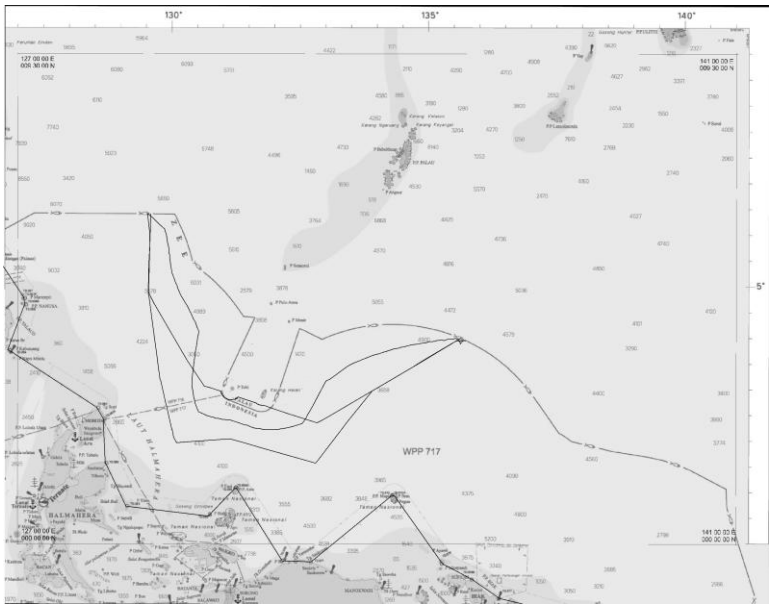

Figure 5.6 Overlapping EEZ Claims between Indonesia and Palau.

In the negotiation between Indonesia and Palau, it will not be surprising that Indonesia and Palau will focus on drawing a line delimiting the overlapping area resulted from their respective unilateral claim. While both sides will certainly maintain their respective position, a compromised line dividing the overlapping area is an option that Indonesia, in particular, may want to accept as a boundary line (see Figure 5.7). In this case, the boundary line may not be constructed by considering baselines of each States but lines representing unilateral claims or forward position of Indonesia and Palau. In other words, the boundary, in this case, may be the line splitting the differences between what Indonesia and Palau have claimed. This approach is by no means unique since some delimitation cases have been decided using this 'splitting' principle. In the Tunisia/Libya case concerning continental shelf delimitation, a dissenting opinion from Judge Gross asserts that the decision was meant to "divide the areas said to be in dispute".[894] The decision was achieved by compromising the claims made by States in questions and opinion made in the Courts.[895] A similar opinion was also provided by

[894] Judge Oda, Dissenting Opinion, Tunisia/Libya case, ICJ Rep (1982), pp.152-153.
[895] *Ibid.*

Judge Oda by stating that the decision was based on the approach of splitting the difference the parties' position.[896]

On the other hand, Palau might have a different view on the final delimitation. Considering that Palau bases its unilateral claim on the principle of median line, splitting the overlapping area may not be that attractive. Palau may argue that Indonesia's forward position is more aggressive than Palau's so the overlapping area is in fact created by a median line (of Palau) and a more aggressive line (of Indonesia). Palau might also view that the overlapping area is unfair for Palau so splitting it into two is unfavourable to Palau. However, in a practical view, drawing a compromised line is likely to be the most possible option. In a negotiation, each party has to be ready to receive less than what it has proposed and this is certainly applicable to Palau and Indonesia. Different options can be proposed in achieving a compromised line between the two States by considering different effect given to Palau's small islands. Figure 5.7 illustrates options of maritime boundary delimitation between Indonesia and Palau with different effects given to Palau's Tobi Island and Hellen Reefs.

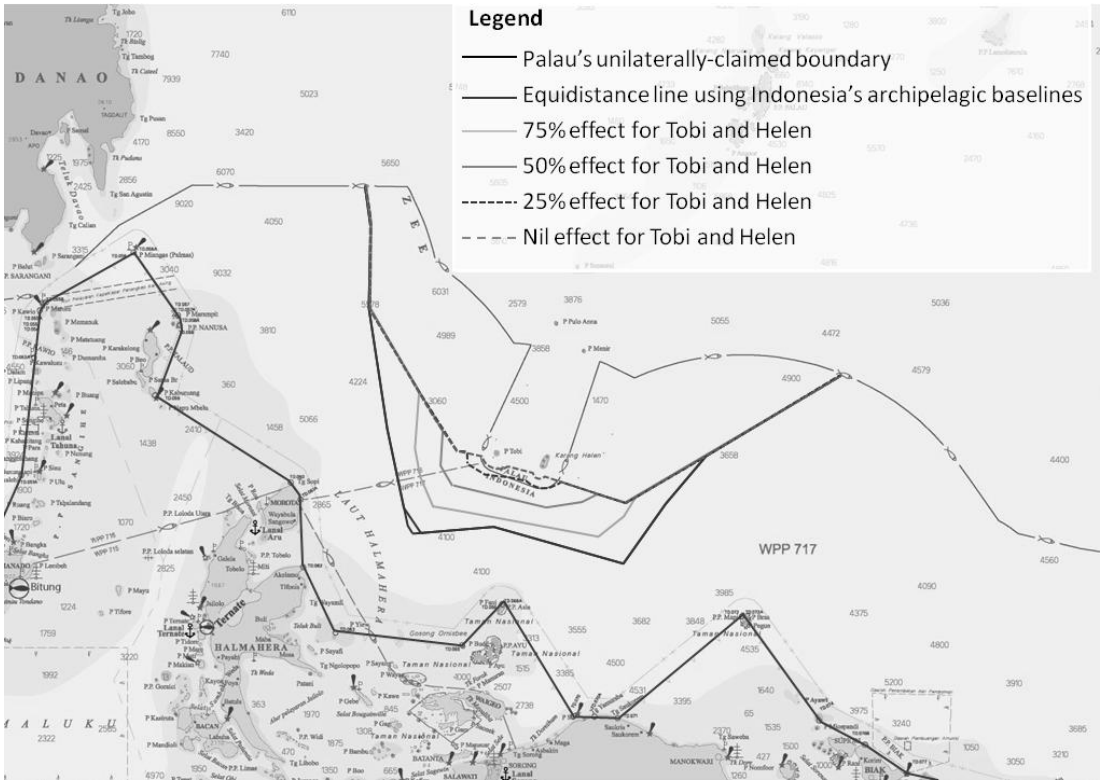

Figure 5.7 Options of Maritime Boundary Delimitation between Indonesia and Palau with Different Effects given to Palau's Tobi Island and Hellen Reefs

[896] Judge Oda, Dissenting Opinion, Tunisia/Libya case, ICJ Rep (1982), p. 270.

Options of maritime delimitation can also be obtained by giving different effects to all Palau's relevant islands/reefs including Pulo Anna and Merir in addition to Tobi and Hellen as illustrated in Figure 5.8.

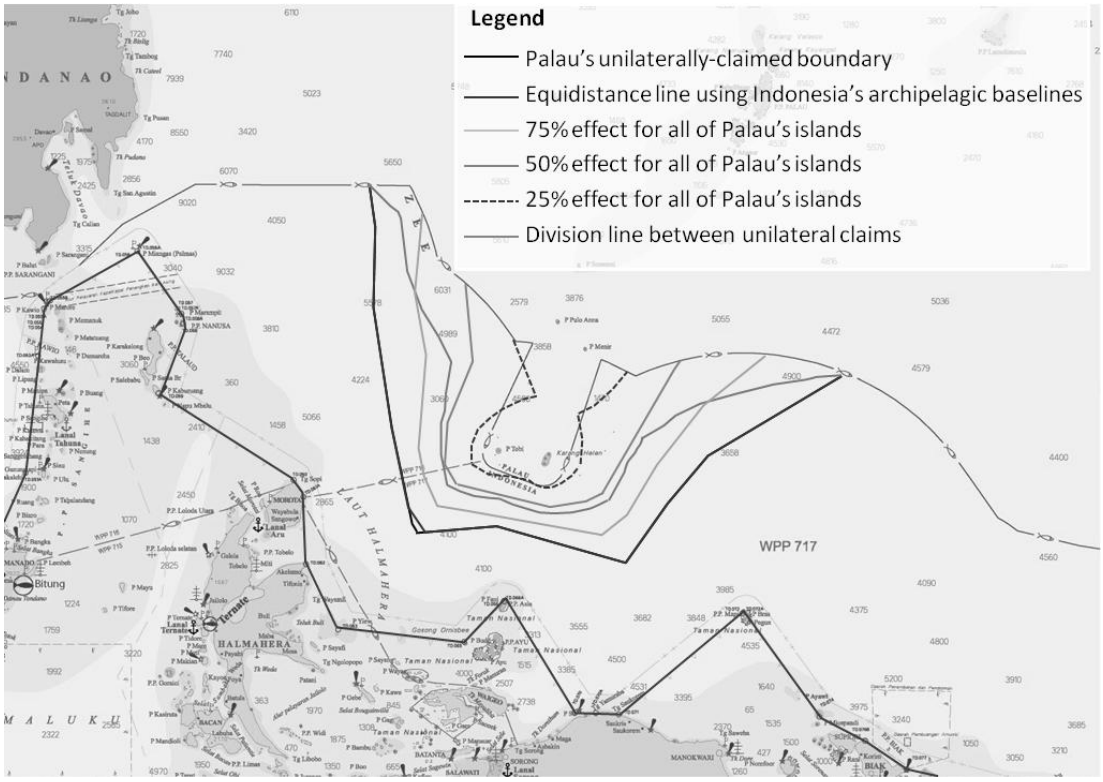

Figure 5.8 Options of Maritime Boundary Delimitation between Indonesia and Palau with Different Effects Given to all Palau's Relevant Islands/Reefs

While it is fact that the 'splitting' approaches have been commonly practiced, care should be taken during the use of this approach. Antunes asserts that the approach "gives States every reason to exaggerate their claims, in order to maximise their 'slice of cake'".[897] Having analysed unilateral claims of Palau and particularly Indonesia, this statement is apparently valid. In other words, this approach can bring ideas to coastal States to make as forward claims as possible, hoping that by doing so, they will be able to maximise the extent of their maritime area since the Court will decide the boundary based on the overlapping area between the coastal with neighbouring States. This certainly is dangerous for the delimitation process since it is not conducted by purely considering the norms and the law on how a coastal States should make their maritime claims. Antunes warns that "Courts must be careful not to reward such behaviours". To

[897] Antunes, N. 2003, see above note 79, p. 181-184.

minimise the danger, the Courts might want to apply the 'winners-take-all' approach so that States in question cannot take it for granted that they will get at least part of what they have claimed. In other words, if a delimitation is conducted by considering objective contributing factors, the unilateral claim by one party which is done with objective consideration is likely to be closer to the final decision. This can make States to assess their claims more carefully and make them as objective as possible.[898]

Another alternative to consider in delimiting EEZ between Indonesia and Palau is apparent disparity in the length of relevant coastlines on the Indonesian and Palauan sides. Indonesia's relevant coastline is represented by archipelagic baselines segments starting from basepoint TD. 056A on Pulau Miangas to baspoint TD. 072 on Pulau Fanildo with a distance of 731.19 nautical miles excluding normal baselines along the coast of islands on which basepoints are placed.[899] Palau, on the other hand, has not published any straight or archipelagic baselines so its coastal length is represented by its coastline of low water line. There are four islands/reefs that are relevant in maritime boundary delimitation with Indonesia. They are Pulo Anna Island, Tobi Island, Hellen Island, and Merir Island. Their relevant coastline is incomparable to Indonesia's relevant archipelagic segments for their small size. Alternatively, relevant Palauan coastline can also be measured by calculating distance of the line connecting aforementioned four islands. Distance form Tobi to Hellen Island, which can be seen as the most relevant part in the delimitation is 40.52 nautical miles. The length of line connecting Pulo Anna, Tobi, Hellen and Merir islands is 202.34 nautical miles. For Indonesia, this disparity as a justification of having a boundary line in the Palauan side of the median line. In practice, this can be done by giving less than full effect to Palau's relevant islands in delimitation. In either case a scenario of giving partial effect to Palau's southernmost islands is a apparently be the way forward for Indonesia and Palau.

[898] Above note 897, p. 184.
[899] The length was calculated using data available on PP 38/2002 on the geographical coordinates of basepoints.

5.7 Indonesia-Timor-Leste

Timor-Leste gained its independence from Indonesia, officially, in 2002 after a historic referendum in 1999.[900] Timor-Leste thereby became Indonesia tenth neighbour with which maritime boundaries need to be settled. Prior to the delimitation of maritime boundaries, Indonesia and Timor-Leste settled their land boundaries in two different areas: between Indonesia's Nusa Tenggara Timur and Oecussi (western segment) and between Indonesia' Nusa Tenggara Timur and Timor-Leste proper (eastern segment).[901] Around 95 per cent of the total length of land boundaries between the two States has been delimited and demarcated.[902] Different sources however, reveal different numbers. President Susilo Bambang Yudhoyono states that 97 per cent of the total land boundaries have been finalized.[903]

While the information on the percentage of land boundary completion might be debatable, it is undisputable that Indonesia and Timor-Leste have yet to completely finalise their land boundary settlement. This brings an important consequence in that maritime boundary delimitation cannot start. The terminal points of land boundary will necessarily serve as the starting points of the maritime boundary between Indonesia and Timor-Leste. It follows that the land boundary between the two States, including the four termini of the land boundaries on the coast (two between Indonesia's West Timor and the main part of Timor-Leste and two related to Oecussi) need to be finalised prior to the initiation of maritime delimitation negotiations. This represents a key issue that explains lack of progress towards maritime delimitation between Indonesia and Timor-Leste. However, comprehensive studies on maritime boundary delimitation between Indonesia and Timor-Leste have been conducted by some experts since the independence of Timor-Leste. Indeed, one of the latest studies on the legal and technical aspects of maritime delimitation between the two States was conducted by the present

[900] See, Schofield, C. and Arsana, I M. A. (2007) "The Delimitation of Maritime Boundaries: A Matter of 'Life or Death' for East Timor?" in Kingsbury, D and M Leach (eds) East Timor: Beyond Independence, Melbourne: Monash University Press.

[901] The author was involved in the demarcation of land boundary by conducting GPS campaigns in Timor Island in M-June 2003.

[902] Sutisna, S. and Widodo, K., (2008). Problems of Land Boundary Demarcation and their Alternative Solutions [Permasalahan Penegasan Batas Internasional Darat dan Alternative Solusinya]. Proceeding of Seminar and Workshop "Border Area Management." Yogyakarta: Department of International Relation, Universitas Pembangunan Nasional "Veteran".

[903] The Jakarta Post (2008). Timor Leste, Indonesia to complete border issues. Available at <http://www.thejakartapost.com/news/2008/04/30/timor-leste-indonesia-complete-border-issues.html>.

author.[904] The study reveals that Indonesia and Timor-Leste need to settle maritime boundaries in three different locations: Ombai Strait, Wetar Strait, and Timor Sea.

The main issue in the Ombai Strait is the fact that Oecussi is geographically located in the western side of the Timor Island, separated from the Timor-Leste proper, which may complicate the maritime delimitation in the area. An option of treating Oecussi as an enclave is analysed in the above-mentioned study, such that it would have its own maritime area separated from that of Timor-Leste proper. The effect given to Indonesia's small island of Batek is also another contributing factor that affects maritime boundary options in the Ombai Strait. In the Ombai Strait, the existence of Pulau Kambing or Atauro Island is one of the factors that complicate the delimitation, as is Indonesia's revision of its archipelagic baselines. The latest archipelagic baselines of Indonesia deposited to the United Nations in 2009 shows that a baseline segment connecting Tg. Lisomu in Pulau Alor and a basepoints in Pulau Lirang is only 1 nautical mile from the closest point in Atauro Island.[905] This particular segment may cut off from the high seas or the exclusive economic zone the territorial sea of Timor-Leste. Apparently, Timor-Leste also views this potential issue and has sent a protest to the United Nations.[906] This issue is comprehensively discussed in Chapter 3 of this thesis (see section 3.9).

With regard to maritime boundary delimitation, an option proposed by Arsana suggests that there is a need for a trade off between Indonesia and Timor-Leste for an equitable solution between the two States.[907] Meanwhile, it is clear from Indonesia's official map showing its 'forward position', that Indonesia prefers a strict equidistance line drawn between Indonesia's updated archipelagic baselines and Timor-Leste's normal

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[904] Arsana, IMA., (2006), Critical Study on the Technical Aspects of the Maritime Boundary Delimitations: A Case Study of the Maritime Boundary Delimitation between the Republic of Indonesia and the Democratic Republic of Timor Leste, Master Thesis, University of New South Wales, Sydney, Australia.

[905] M.Z.N.67.2009.LOS of 25 March 2009: Deposit of a list of geographical coordinates of points of the Indonesian Archipelagic Baselines based on the Government Regulation of the Republic of Indonesia Number 38 of 2002 as amended by the Government Regulation of the Republic of Indonesia Number 37 of 2008. Available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/mzn_s/mzn67.pdf>

[906] Permanent Mission of the Democratic Republic of Timor Leste, (2012), Communication from the Government of the Democratic Republic of Timor-Leste to the Secretary General of the United Nations dated 5 February 2012. Retrieved from <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/DEPOSIT/communicationsredeposit/mzn67_2009_tls.pdf> on 30 May 2013.

[907] See above note 904.

baselines.[908] Consequently, the boundary line proposed by Indonesia passes only around 0.5 nautical mile north of the Atauro Island. Proposing the use of archipelagic baselines for Indonesia as an archipelagic State is surely not baseless. However, as previously mentioned, Timor-Leste apparently does not fully agree with Indonesia's baselines deposited to the UN in 2009. Consequently, Indonesia's 'forward position' regarding maritime boundaries with Timor-Leste may face a challenge from Timor-Leste for the proposal is based on the use of the 2009 baselines (see Chapter 3, section 3.9). The protest sent by the Timor-Leste in 2012 regarding Indonesia's baselines indicates that the use of baselines will be one of the sources of contention in the delimitation of maritime boundary between the two. There are some possibilities in response to Timor-Leste's protest. Firstly, Indonesia may maintain its position and keeps its baselines configuration as it is now. For this option, it has to be anticipated that this is likely to upset Timor-Leste. Secondly, Indonesia may change the configuration of its baselines to address issues that became Timor-Leste's concerns. This is apparently not a straight forward process for Indonesia and it tends to be reluctant to this revision option. Thirdly, Indonesia and Timor-Leste can achieve an agreement that Timor-Leste recognises Indonesia's baselines but may have a different position when it comes to maritime boundary delimitation (see section 5.4).

In the Timor Sea, Indonesia and Timor-Leste need to settle two lateral segments of maritime boundaries delimiting territorial sea, EEZ and continental shelf. The western segment starts at the terminal point of the Indonesia-Timor-Lester land boundary located at Mota Masin, around 09° 27' 41.4" S, 125° 05' 18.1" E. Indonesia proposes that the segment heads in a southerly direction by considering Indonesia's archipelagic baselines and the normal baselines of Timor-Lester proper. This proposal has been clearly depicted on Indonesia's official map.[909] For the eastern segment, Indonesia's archipelagic baselines might well be used and Timor-Leste's normal baselines including that of Jaco Island, a small island at less than one nautical mile from the north-eastern tip of Timor-Leste proper. Indonesia's preference to use equidistance line may cause a 'squeezing' effect of Indonesian territories to the east and west that Timor-Leste might nig see as an equitable solution. In response to this, Timor-Leste might request some adjustment of these equidistance lines. On the other hand, this adjustment proposal is

[908] See above note 820.
[909] *Ibid.*

something that Indonesia is likely to oppose and will become another source of contention in maritime boundary delimitation between Indonesia and Timor-Leste. In addition, the delimitation of these two lateral boundary segments will inevitably need to consider the existing maritime boundaries between Indonesia and Australia and Joint Petroleum Development Area between Australia and Timor-Leste. For detailed analysis and options of maritime boundaries between Indonesia and Timor-Lester, please refer to Arsana's earlier work.[910]

5.8 Concluding Remarks

For all this evident progress in concluding maritime delimitation agreements with neighbouring States, it is worth noting that the 17 maritime boundary agreements have not, in fact, finalised maritime delimitation with the seven States involved. With Malaysia, for example, only seabed and territorial sea boundaries have been settled in the Malacca Strait while EEZ boundaries are still pending. Consequently, in the northern part of Malacca Strait where EEZ boundaries are missing, sovereign rights over seabed have been made clear but not over water column superjacent to the seabed. In other words, exploration and exploitation of seabed resources (for example, oil, gas, and sedentary species) have been clearly regulated but not of natural resources in the water (notably, fisheries). Similar situation can also be found in the South China Sea, where only seabed boundaries have been delimited between Indonesia and Malaysia and between Indonesia and Vietnam. In the Sulawesi Sea (between Indonesia and Malaysia and between Indonesia and the Philippines), no boundaries have been in place neither for seabed nor water column. Accordingly, Indonesia, Malaysia and the Philippines are required to proceed to the delimitation process in the area.

The absence of maritime boundaries has proved to be problematic and an evident underlying source of dispute between Indonesia and its neighbours. The infamous case of Ambalat Block dispute between Indonesia and Malaysia in the Sulawesi Sea is, among others, provides compelling evidence of the negative impact of the absence of maritime boundaries. The incident involving Malaysia's fishermen, an Indonesian patrol team and Malaysia's Polis Marin Diraja Malaysia on 13 August 2010 provides another example that pending maritime boundaries can bring trouble in regional and

[910] Above note 904. See also, Schofield, C. and Arsana, I M. A. (2007), *op cit.*

international relationship among neighbouring States.[911] The absence of territorial sea boundaries in the waters off Tanjung Berakit (in the Singapore Strait) represents the main issue causing tension built between the two States. The incident also sparked strong responses, mainly, from the Indonesian people. Even though the issue was certainly multidimensional in character, it was undisputable that tension was sparked by maritime boundary issue. President of the Republic of Indonesia, Dr. Susilo Bambang Yudhoyono, delivered a special speech asking for peaceful resolution for the issue and specifically mention the urgency of maritime boundary delimitation between Indonesia and Malaysia.[912] This incidence once again reminds us that maritime delimitation is essential in maintaining good relationship among neighbours. As Robert Frost states in his poem "Mending Wall" that "good fences make good neighbours."[913]

For Indonesia, maritime boundary areas in the Malacca Strait, Singapore Strait and Sulawesi Sea are certainly busier than Ombai Strait or Wetar Strait, for example. Consequently, the three locations are more prone to incidences. Therefore, it is understandable that Indonesia views maritime delimitation in those three areas previously mentioned are more urgent that that in the last two straits. Distance between Indonesia and its neighbours is also a contributing factors to how prone maritime boundary areas to incidents. Incidents with Palau, for example, are not as frequent as those taking place with Malaysia for the distance. Malaysia is located significantly closer to Indonesia than Palau and the closer the distance the higher the possibility for incidents.

Having understood the aforementioned issues, there are some lessons to learn with regard to pending maritim boundaries, which are expected to be useful in Indonesia's maritime boundary delimitation in the future. Firstly, as previously mentioned, pending maritime boundaries generate uncertainty on ocean division and management. Secondly, the absence of maritime boundaries may spark tension between Indonesia and its neighbours and it can manifest into a more serious international problem which eventually affect multidimensional relationship between Indonesia and its neighbours. Thirdly, where seabed (continental shelf) boundaries have been in place but EEZ (water

[911] MFA, (2010), Press Release: Indonesia Sent a Diplomatic Note Conveying Protest to Malaysia. Available at <http://www.deplu.go.id/Pages/News.aspx?IDP=3878&l=en>
[912] The full speech of President Yudhoyono in Bahasa Indonesia is available at <http://www.presidensby.info/index.php/pidato/2010/09/01/1473.html>.
[913] Robert Frost, from his metaphorical poem "Mending Wall" published in 1914.

column) boundaries are pending, there will always be different views regarding single and non-single line maritime boundaries. These different views will generate different claim line which eventually generate overlapping claim where incident often take place. The case of the Malacca Strait is a good example of this situation where seabed boundary was agreed in 1969 (see subsection 5.2.1). Fourthly, while some States like Indonesia are certain with their unilateral claim or so-called forward position regarding maritime boundaries, other States have yet to explicitly express their unilateral position. This can bring complication when it comes to maritime boundary delimitation for there is no common understanding regarding forward position of respective States in question. In practice, this uncertainty makes it difficult even to define whether or not there is overlapping area between two or more States. Fifthly, maritime boundary delimitation can take decades to settle so one particular segment may be taken care of by different negotiating team from each State in question. It requires good and systematic regeneration of team member to ensure continues flow of information from one generation to the other. This will eventually facilitate the process of negotiation. Sixthly, it is worth noting that issues and tension regarding pending maritime boundaries are often due to poor information dissemination so general people lack of understanding. This lack of understanding, due to poor information dissemination and media attitude in information distribution, may lead to inappropriate response from general people to a particular boundary-related issue which eventually may affect maritime boundary negotiation.

For the purpose of this research three case studies are analysed: Indonesia-Malaysia in the Sulawesi Sea, Indonesia-Malaysia-Singapore in the Singapore Strait and Indonesia-Malaysia in the Malacca Strait. These three case studies are chosen to represent four identified issues previously discussed in Chapter 1 of this thesis. The first issue is the existence of natural resources in overlapping areas and how it affects delimitation process, which is represented by Sulawesi Sea requiring delimitation between Indonesia and Malaysia. The maritime boundary delimitation in the Sulawesi Sea is discussed in Chapter 6 of this thesis. The second issue is the use of different types of baselines in delimitation, which is represented by all case studies but in particular the Malacca Strait and also the Singapore Strait. Maritime delimitations in the Malacca Strait and in the Singapore Strait are discussed in Chapter 8 and 7 respectively. The third issue is the use of different lines for seabed and water column in a same location, which is represented

by the situation in the Malacca Strait. The fourth issue is the role of special geographical features in delimitation, which is represented all areas. Sulawesi Sea has Pulau Sipadan and Ligitan to deal whit, Singapore Strait has Pedra Branca, Middle Rock and South Ledge to consider and the Malacca Strait has Pulau Jarak and other small island to be taken into account. These are the reason why the three locations, the Sulawesi Sea, the Singapore Strait and the Malacca Strait are chosen for case studies and each is discussed in Chapters 6, 7 and 8 respectively.

CHAPTER 6 MARITIME DELIMITATION IN THE SULAWESI SEA

"Love your neighbour, yet do not pull down your hedge." - Benjamin Franklin

6.1 Introduction

As discussed in Chapter 5, the pending maritime boundaries in the Sulawesi (or Celebes) Sea[914] represents a key point of contention between Indonesia and Malaysia and also between Indonesia and the Philippines. For the purpose of this chapter of the thesis, analysis will concentrate on the Indonesia-Malaysia issue as one of the three detailed case studies identified in Chapter 1.

There are several reasons for selecting Indonesia and Malaysia's potential delimitation among the maritime boundary concerns relevant to the Sulawesi Sea. Firstly, and perhaps most importantly, the Indonesia-Malaysia maritime boundary dispute has proved to be especially complex and contentious as compared to the undelimitated maritime boundary between Indonesia and the Philippines. Secondly, the process of negotiation between Indonesia and Malaysia appears to be much more intensive in character compared to that of Indonesia-the Philippines case (see below). Research and discussion devoted to Indonesia and Malaysia's potential maritime boundaries is therefore considered to be more timely.

Further, as outlined in Chapter 4 (section 4.4) and Chapter 5 (section 5.2), Indonesia and Malaysia share maritime boundaries in three other locations: in the Malacca Strait, the southwestern South China Sea and in the Singapore Strait.[915] While these other pending maritime boundaries can be considered to be of equal importance in principal, it does appear that the dispute concerning the so-called 'Ambalat Block' or 'Ambalat offshore area', located in the Sulawesi Sea to the east of the Island of Borneo, has been a salient and arguably the most significant point of contention between Indonesia and

[914] International Hydrographic Organisation (IHO) uses the term Celebes Sea to identify the region. However, it is also known as Sulawesi Sea or *Laut Sulawesi* in Bahasa Indonesia. For the purpose of this thesis, the term Sulawesi Sea is used. See, IHO, 1953, Limits of Oceans and Seas, 3rd edition, available at <http://www.iho-ohi.net/iho_pubs/standard/S-23/S23_1953.pdf>, on 7 July 2013.

[915] For the Malacca Strait segment, the Indonesian Ministry of Foreign Affairs also refer to as Malacca Strait and Southern Part of the Malacca Strait. See for example: MFA, 2010, Press Release No. 183/PR/X/2010/53: The 16th Technical Meeting on Maritime Boundaries between Indonesia and Malaysia is to take place in Kuantan, Malaysia on 13-14 October 2010. Available at <http://www.kemlu.go.id/Pages/PressRelease.aspx?IDP=1011&l=id>

Malaysia since 2005. This further justifies consideration of this particular maritime delimitation scenario as a case study for the present research.

The Indonesia-Malaysia maritime boundary issue in the Sulawesi Sea provides, moreover, a suitable case study to address for the purposes of this thesis because it encompasses key aspects of the four issues identified for particular analysis in this study (see Chapter 1, section 1.6). In particular, analysis of Indonesian and Malaysian maritime boundary claims in the Sulawesi Sea offers the opportunity to explore if and how the presence of natural resources within a marine area subject to overlapping claims has impacted on a particular dispute. In this context marine resource issues appear to have played a salient role. Indonesian people in general appear to have a perception that the dispute relates to the Ambalat Block, or offshore oil and gas exploration concession area, and therefore concerns a case where Indonesia and Malaysia are competing against each other to gain rights over a potentially oil-rich seabed called Ambalat in the Sulawesi Sea.[916]

A particular aspect of the Ambalat dispute is that it has to an extent been played out in the news media. It is not easy, however, to find analysis in popular media coverage of the issue that offers discussion on the key issue or 'root of the problem' as it were, that is explored in detailed here which is the pending maritime boundaries between the two neighbouring States. Discussion and debate in television and newspaper has predominantly focussed on how Indonesia should 'win' the argument with Malaysia and establish that the Ambalat block 'belongs' to Indonesia.[917] This focus on 'winning' and 'losing' ownership over seabed energy resources is, to an extent, misleading as it tends to detract from consideration of the legal and geotechnical issues involved in the delimitation of maritime boundaries in the Sulawesi Sea. The role of the media is therefore addressed here and it is hoped that this thesis (and the publications arising from it) assists to some extent by providing critical analysis of key legal and technical aspects of the case.[918]

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[916] See for example: Sumaryo, Arsana, I MA. and Sutisna S. (2007) The Strategic Value of Maritime Boundaries to Ocean Resource Exploration, Proceeding - Indonesian Petroleum Association Thirty First Annual Convention & Exhibition, Jakarta, 14-16 May.

[917] See for example: Tempo, 2009, Government is optimistic in winning the case over Ambalat [Bahasa Indonesia]. Available at <http://www.korantempo.com/korantempo/koran/2009/06/02/headline/krn.20090602.166963.id.html>

[918] See for example: Rais, J. and Tamtomo, JP. (2005) Ambalat Block: Misleading Public Opinion? Make Marine Cadastre Not War, *Kompas* 12 April 2005, Jakarta.

Further, and in keeping with the key factors for analysis outlined at Chapter 1, subsection 1.6, the Indonesia-Malaysia maritime delimitation scenario in the Sulawesi Sea includes consideration of baselines issues and also includes the presence of notable special geographical features. Such features include the presence of islands which represent an additional complicating factor in the Sulawesi Sea ocean boundary-making context. Sovereignty over two islands in particular, Sipadan and Ligitan was disputed between Indonesia and Malaysia until 2002. The sovereignty dispute over the islands, which are located in the Sulawesi Sea, to the north of the currently disputed Ambalat Block area, emerged in the 1969 and was ultimately resolved as a result of a case before the International Court of Justice which concluded in 2002, with the Court ruling that sovereignty over the islands rests with Malaysia.[919] That the sovereignty dispute has been resolved is clearly a positive development. However, the national feeling provoked by the sovereignty dispute and ICJ ruling has to an extent 'spilled over' into the subsequent Ambalat dispute concerning maritime claims and boundary delimitation in a geopolitical sense. Further, from a geospatial and legal perspective, these two islands are likely to be critical to the resolution of the Indonesia-Malaysia maritime boundary dispute in this area. This is because these features may be entitled to generate claims to maritime jurisdiction projecting southward, towards the Ambalat area (see Figure 6.4). This, to an extent, can be viewed as a contributing and complicating factor in the dispute and represents a point of controversy in bilateral relations on this issue.

This chapter analyses maritime delimitation between Indonesia and Malaysia in the Sulawesi Sea. Building on previous discussions (see Chapters 5.4 and 6.2), it opens with an overview and explanation of the geographical and marine resource context of the Sulawesi Sea before addressing the maritime claims of Indonesia and Malaysia in the area, including a brief treatment of the outcome of the ICJ case relating to Pulau Sipadan and Pulau Ligitan. Incidents causing tension between Indonesia and Malaysia are also discussed, followed by an analysis of existing maritime delimitation efforts in the Sulawesi Sea. This section presents overview of progress achieved by the two States in as far as it is publically known to the time of writing in terms of maritime delimitation in the Sulawesi Sea. Analysis then turns to a proposal of the delimitation of maritime boundaries between Indonesia and Malaysia in the future. This part of the chapter follows the methodology outlined in Chapter 1 which draws on evolutions in the

[919] Sipadan and Ligitan Case, see above note 70.

approach to ocean boundary-making witnessed in recent cases before international courts and tribunals – that is, the application of the three-stage approach to maritime boundary delimitation (see Chapter 2, subsection 2.6.5). Discussion on the potential maritime delimitation between Indonesia and Malaysia in the Sulawesi Sea includes analysis of relevant baselines of Indonesia and Malaysia and the potential role of Sipadan and Ligitan Islands on any delimitation line. Finally, the chapter explores options as to how Indonesia and Malaysia can finalise its pending maritime boundaries in the Sulawesi Sea.

6.2 The Sulawesi Sea

6.2.1 Geographical Setting

The Sulawesi Sea is part of a larger body of water, the West Pacific Ocean. In essence the term "Sulawesi Sea" geographically refers to the maritime area located to the east of Borneo Island. It is limited by Sulawesi Island to the south, Kalimantan region in Indonesian Borneo and the south-eastern coast of Sabah in Malaysian Borneo to the west and the Sulu Archipelago and Mindanao Island of the Philippines to the north. To the east, the Sulawesi Sea is bordered by Indonesia's chain of islands called the Sangihe Islands.[920] The approximate dimension of Sulawesi Sea is 675 km (364 nautical miles) north-south and 840 km (454 nautical miles) east-west, encompassing a total maritime area of 280,000 square kilometres with a maximum depth of 6,200 metres.[921] Figure 6.1 illustrates the geographical setting of Sulawesi Sea.

[920] C Michael Hogan (Lead Author); Peter Saundry (Topic Editor) "Celebes Sea". In: Encyclopedia of Earth. Eds. Cutler J. Cleveland (Washington, D.C.: Environmental Information Coalition, National Council for Science and the Environment). [First published in the Encyclopedia of Earth October 14, 2009; Last revised Date August 19, 2011; Retrieved February 27, 2012 <http://www.eoearth.org/article/Celebes_Sea?topic=49523>

[921] *Ibid*.

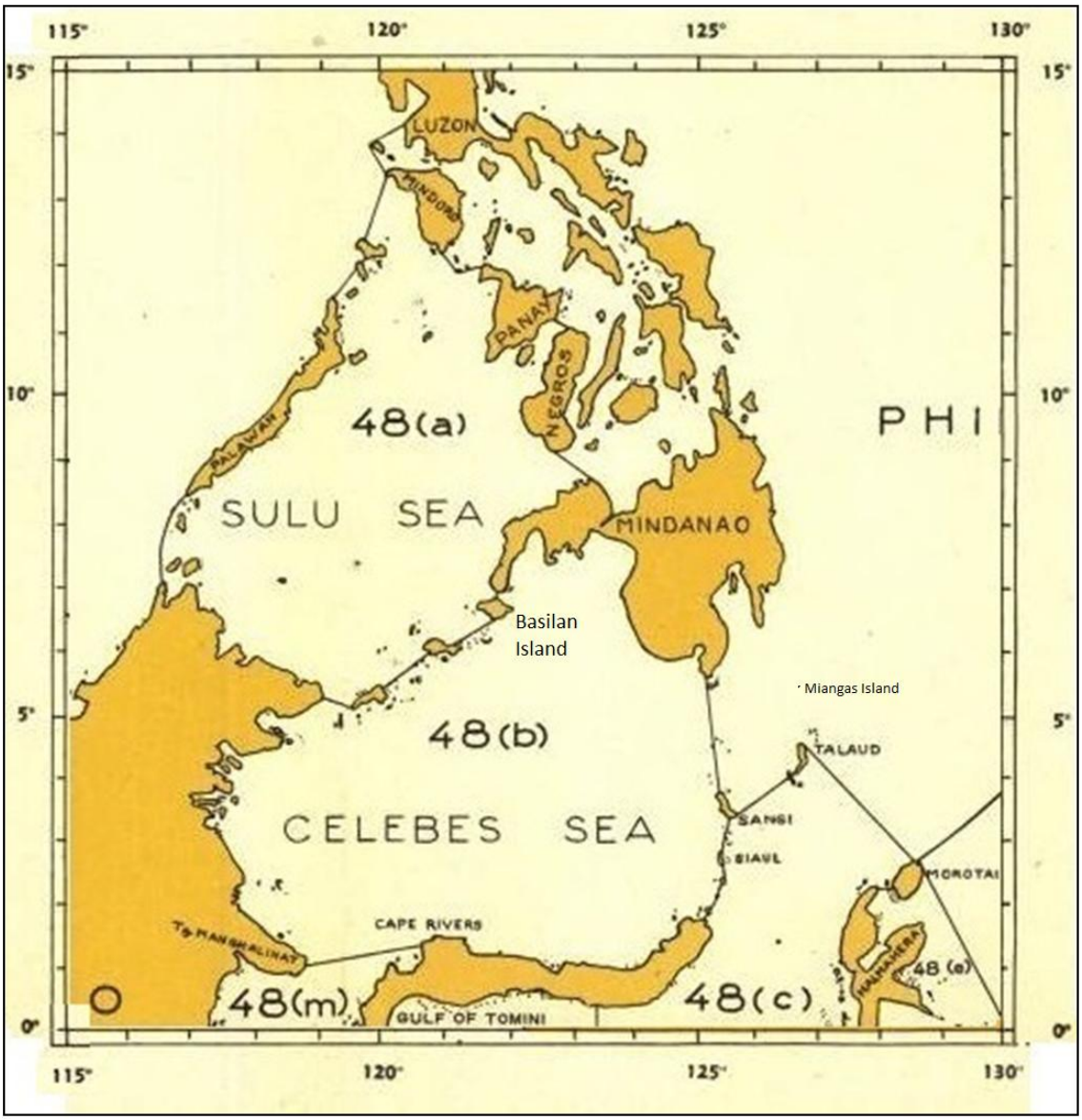

Figure 6.1 Sulawesi Sea[922]

The International Hydrographic Organization considers that the Sulawesi Sea to be one of the waters of the East Indian Archipelago and it defines its precise limits.[923] The southern limit of Sulu Sea becomes the northern limit of the Sulawesi Sea. Accordingly, the Sulawesi Sea starts at Tagolo Point in Illiana Bay, extends down the west coast of Mindanao to its Southwest extremity thence to the north coast of Basilan Island at coordinates of 6°45′N, 122°04′E. The limit goes through the southern extremity of the Basilan Island, then proceeding in a line to Bitinan Island at coordinates of 6°04′N, 121°27′E, off the Eastern end of Jolo Island. The limits of the Sulawesi Sea proceed through Jolo to a point with longitude of 121°04' E on its southern coast, thence through

[922] IHO, 1953, *op cit*, Sheet map 3.
[923] International Hydrographic Organization. 1953. Limits of Oceans and Seas, 3rd edition, pp. 24-25.

the Islands of Tapul and Lugus and along the north coast of Tawitawi Island to Bongao Island off its Western end at coordinates of 5°01′N 119°45′E. From there, the limit proceeds to Tanjong Labian, the North-eastern extreme of Borneo and the southwest coast of Mindanao.[924]

To the east, a limit line starts from Tanjong Tinaka, the southern point of Mindanao to the north point of Sangi at coordinates of 3°45′N, 125°26′E thence through the Sangihe Islands to the northeast extreme of Sulawesi called Tanjung Pulisan. Pulau Miangas is an outer lying island of Indonesia and is the northernmost feature in the chain of Sangihe Islands (see Figure 6.1).

The southern limit of Sulawesi sea is the north coast of Sulawesi between Tanjung Pulisan and Stroomen-Kaap (Cape Rivers) in North Tolitoli at coordinates of 1°20′N, 120°52′E and thence a line to Tanjung Mangkalihat in Indonesia's East Kalimantan, the northern limit of Makassar Strait a line joining Tanjong Mangkalihat in Borneo at 1°02′N 118°57′E and Stroomen-Kaap (Cape Rivers) on Sulawesi at 1°20′N 120°52′E.

To the west, the limit of Sulawesi Sea is the east coast of Borneo between Tanjong Mangkalihat and Tanjong Labian, and the southern limit of the Sulu Sea. For the purpose of maritime delimitation between Indonesia and Malaysia in the Sulawesi Sea, this western limit is important since maritime boundaries are significantly influenced by coastal geography of the eastern coast of Borneo.

In 2009, the Indonesian Geological Survey Institute (GSI) compiled a Sedimentary Basin Map of Indonesia (*Peta Cekungan Sedimen Indonesia*).[925] The map was published by the Indonesian Geological Agency, based on gravity and geological data. The map indicates that, based on age, Sulawesi Sea is dominated by tertiary basin, which is considered as a relatively young basin.[926] Meanwhile, based on tectonic setting, it is classified as fore-arc[927] within a category of marginal sea.[928] This geological characteristic provides potential setting for seabed oil and gas resources,

[924] *Ibid.*
[925] Indonesian Geological Agency, 2009, Sedimentary Basin Map of Indonesia, Bandung
[926] Classification of basin based on age are tertiary basin, pre-tertiary basin, and pre-tertiary-tertiary basin. See: Sedimentary Basin Map of Indonesia, 2009
[927] Other categories in which Indonesia is categorised in are back-arc, intermontane basin, trench, foreland, passive margin, oceanic basin, deltaic basin, rifting valley, transtensional, and transtensional marginal oceanic basin. See: Sedimentary Basin Map of Indonesia, 2009
[928] Other classifications are craton, oceanic plate, and transitional complex. See: Simanjuntak TO, Barber AJ (1996) Contrasting tectonic styles in the Neogene orogenic belts of Indonesia. In: Hall R, Blundell D (eds) Tectonic evolution of Southeast Asia. Geol Soc Spec Publ Lond 106:185–201

which are important in the context of maritime boundary delimitation in the area (see below).

6.2.2 Resource Potential

Securing rights over valuable marine resources, both living and nonliving, such as fisheries and deposits of seabed hydrocarbons is one on the key drivers for maritime delimitation between countries. Maritime boundaries serve as the limit up to which a State may exercise its rights in relation to the utilisation of natural resources utilisation. The precise definition of maritime jurisdictional limits and boundaries offers States legal clarity concerning which State is able to authorise, regulate and manage activities in a given maritime space and, critically, which State is therefore in a position to benefit from the financial proceeds arising.

The case of Sulawesi Sea is no different. Competition for natural resources in (or, at least, thought to be in) the disputed maritime area in question appears to be one of the primary reasons why the question of maritime delimitation in the area subject to overlapping jurisdictional claims is viewed as being of significance. In essence, the perception, that potentially highly valuable marine resources are at stake, touches on core national interests. Similarly, from the perspective of marine resource users or exploiters such as fisheries and oil companies, delimited maritime boundaries deliver certainty and security for their operations.

6.2.2.1 Offshore Hydrocarbons

With regard to hydrocarbon deposits, the Sulawesi Sea is suspected as being an oil-rich seabed area. Exploration and exploitation for oil and gas in Sulawesi Sea started in the 1960s when Indonesia awarded concession blocks for several exploration and exploitation companies. The first concession was granted by Indonesia to JapEx in 1966 followed by other concessions (see section 6.3 below).

In terms of energy resources, the Sulawesi Sea area can be regarded as reasonably promising, as evidenced by the interest shown by major oil companies to operate in the area. ENI, an Italian oil company, for instance, signed a contract for production sharing with the government of Indonesia in 1999.[929] Furthermore, the then director general for

[929] *The Jakarta Globe*, 2009, Border Tension Adds Urgency To Ambalat Oil Exploration, Jakarta, available at <http://www.thejakartaglobe.com/archive/border-tension-adds-urgency-to-ambalat-oil-exploration/> on 5 July 2013.

Oil and Gas of the Ministry of Energy and Mineral Resources, Evita H. Legowo, states that Aster oil field located in the Ambalat Block holds the potential to boost domestic oil production to 30-40,000 barrels per day.[930] The then Ministry added that Ambalat Block can potentially boost the production up to 1 million barrel per day in 2010 from only 960.000 barrel per day in 2009.[931] In late 2004, ENI also reportedly drilled two test wells in the region and made "encouraging" discoveries.[932] However, the test and preliminary exploration efforts have yet to be followed. Despite remaining uncertainties, the promising indication of hydrocarbon potential encouraged the Indonesian authorities to provide a very broad estimate of the hydrocarbon deposits in the Ambalat area of between 100 million barrels and one billion barrels of oil.[933] Schofield and Storey commented that:

> Although caution should be used in respect to such estimates in the absence of in-depth exploration work, particularly test drilling, it seems clear that there is significant potential for offshore oil and gas exploitation in the Ambalat offshore area, which is of obvious national interest to both states, especially in the context of the energy security dilemmas they face.

According to a report released by Gatra, an investigative magazine in Indonesia, the Ambalat Block is an oil-rich area that may be utilised for up to 30 years. It is estimated that Ambalat Block itself has nine basins of oil deposits, every basin of which is estimated to contain around 764 million barrels oil and gas deposits of around 1.4 trillion cubic feet.[934] On the basis of this figures, the estimation of State revenue, according to the report released by Gatra, would be around US$ 40 billion from oil taken from Ambalat Block alone.[935] Despite the aforementioned promising figures, caution should be attached to these estimates in light of the limited amount of drilling that has occurred. This suggests that the figures mentioned are highly speculative.

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[930] ENI temukan minyak di Ambalat [ENI discovers oil in Ambalat], available at <http://www.tekmira.esdm.go.id/currentissues/?p=1887> on 2 July 2013.
[931] *Ibid.*
[932] *The Jakarta Post*, 2005. Eni finds oil in area claimed by Indonesia, Malaysia. 18 March 2005, Jakarta, Indonesia
[933] *Ibid.*
[934] Gatra, 2009. Ambalat is not merely a block [*Bahasa Indonesia*] available at <http://arsip.gatra.com/2009-06-11/artikel.php?id=127091
[935] See above note 934

Further, the estimates mentioned above also do not distinguish whether reserves or resources are being referred to and there is a major distinction between the two.[936]

6.2.2.2 Living resources

Marine living resources, especially fisheries, are essential for Indonesia and Malaysia and other States bordering Sulawesi Sea. They are especially important for Indonesia given its very large population, where it is currently the fourth most populous State in the world.[937] While, there are uncertainties regarding hydrocarbon resources in the Sulawesi Sea for limited available data and information, the existence of living resources, especially fisheries, is more evident and they are clearly at critical importance. Fisheries undoubtedly represent the most important living resources in the area. To properly estimate and manage fishery resources in Indonesian waters including the Sulawesi Sea, the Indonesian government through the Ministry of Marine Affairs and Fisheries (MMAF) established the Fisheries Management Area or *Wilayah Pengelolaan Perikanan* (hereinafter referred to as WPP). The WPP is governed by the MMAF's Regulation number 1 of 2009.[938] The regulation is visualized through a map showing the WPP divided into eleven distinct locations/zones, pursuant to Article 1 (2) of the Ministry Regulation. The maritime area of the Sulawesi Sea is included in WPP 716. Ten other WPPs are the Malacca Strait (WPP 571), Indian Ocean (West of Sumatra, WPP 572), Indian Ocean (South of Java, WPP 573), South China Sea (WPP 711), Java Sea (WPP 712), Makassar Strait – Flores Sea (WPP 713), Banda Sea (WPP 714), Gulf of Tomini – Seram Sea (WPP 715), Pacific Ocean (WPP 717), and Arafura Sea – Timor Sea (WPP 718) as shown in Figure 6.2.

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[936] See, Owen, N.A. and Schofield, C.H., (2012) "Disputed South China Sea Hydrocarbons in Perspective", Marine Policy, Vol.36, No.3, p. 813.

[937] According to the World Bank, Indonesia's population of 2012 is 246,864,191, which is the fourth in the world after China (1,350,695,000), India (1,236,686,732) and the United States of America (313,914,040). See, The World Bank Data: Population, Total, available at <http://data.worldbank.org/indicator/SP.POP.TOTL> on 12 July 2013.

[938] Ministry of Marine Affairs and Fisheries Regulation Number 1 of 2009 on Fisheries Management Areas (WPP).

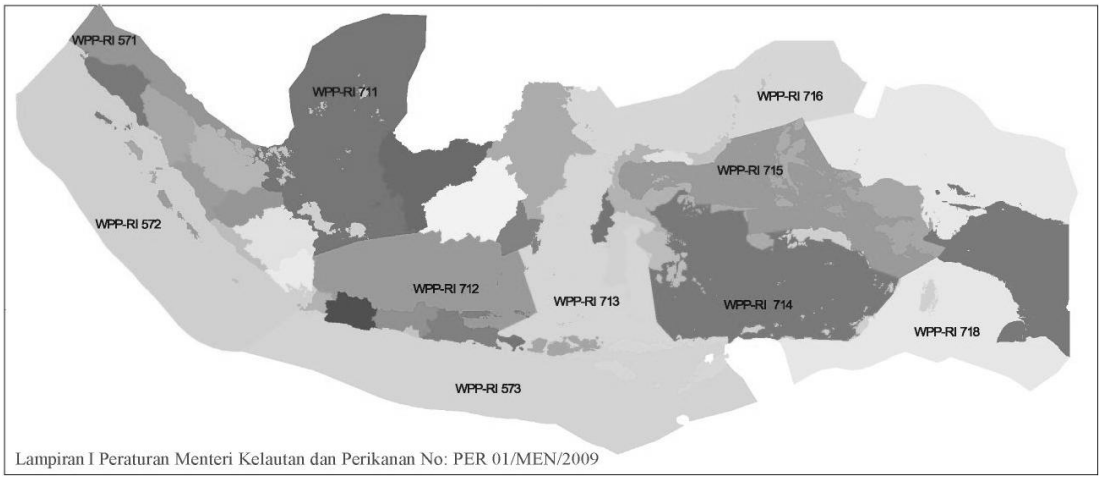

Figure 6.2 The Map of Fisheries Management Zone (WPP)[939]

In 2011, MMAF issued Ministry Regulation number 45 of 2011 on the Estimation of Fisheries Resources Potential in Indonesia's WPP.[940] The regulation serves as the official information or assessment regarding fisheries resources which, in turn, informs the establishment of allowable level exploitation. The 2011 regulation states that fisheries resources potential in the Sulawesi Sea (WPP 716) as follows:

Table 6.1 Fisheries Resources Potential in the Sulawesi Sea

No	Fisheries Resources Group	Estimated potential (tonnes per year)
1	Large Pelagic Fish	70.1
2	Small Pelagic Fish	230.9
3	Demersal Fish	24.7
4	Penaeid Shrimp	1.1
5	Consumption Rockfish	6.5
6	Lobster	0.2
7	Squids	0.2

Table 6.1 shows that the greatest potential in the Sulawesi Sea is for small pelagic fish which accounts for 230.9 tonnes per year of estimation. Compared to fisheries potentials of other WPPs, WPP 716 ranks 8 of 11, slightly better than that of Pacific Ocean (WPP 717), Banda Sea (WPP 714) and Malacca Strait (WPP 571). Among those group of fisheries, lobster and squids are estimated to be the smallest potentials for only

[939] Attachment to the Ministry of Marine Affairs and Fisheries Regulation Number 1 of 2009 on Fisheries Management Areas (WPP).
[940] Ministry of Marine Affairs and Fisheries Regulation Number 45 of 2011 on the Estimation of Fisheries Resources Potentials in Indonesian WPP.

0.2 tonne per year each. Even though in general this may be considered as reasonably good potential, it seems that fisheries resources in the Sulawesi Sea is not as promising as that in, for example, the South China Sea (WPP 711), with an estimated total potential of 1,059 tonnes per year. However, even if relatively limited in comparison to especially abundant areas such as the South China Sea, nonetheless, this potential with respect to marine living resources still provides a strong rationale to clarify maritime boundaries in the Sulawesi Sea, without which, Indonesia's WPP 716 in the area has no fixed limits. It has been evident that fishing activities in overlapping claim can spark tension between Indonesia and neighbouring States. Incidents in the Malacca Strait in 2011 (see Chapter 8) and the one in the Singapore Strait in 2010 (see Chapter 7) are two good examples of this. Put simply, uncertainty of maritime boundaries is disadvantageous for fisheries conducting activities the area.

6.3 Maritime Claims in the Sulawesi Sea

As noted above, at the time of writing, no maritime boundaries had been agreed in the Sulawesi Sea. However, the littoral States, especially Indonesia and Malaysia, have articulated their maritime claims in the area. Indonesia, for example, declared its claim over the maritime area in question since the 1960s, while Malaysia expressed its claim officially in the late 1970s. This subsection discusses the maritime claims made by Indonesia and Malaysia with specific reference to the Sulawesi Sea.

6.3.1 Indonesia's Claims

As outlined in Chapter 3 of this thesis, Indonesia's claim over maritime areas has evolved since its independence. For the area of the Sulawesi Sea, in particular, Indonesia's maritime claims were, initially, motivated by seabed resources utilization (see below). Indonesia also designated archipelagic baselines in 1960 (see Chapter 3) serving as reference from which maritime claims are measured. Interestingly, even though the baselines Indonesia designated were similar to archipelagic baselines governed by the 1982 Law of the Sea Convention, there is no mention of a term "archipelagic state" in the 1960 law arguably because this concept had yet to be codified through the 1982 Convention. The following subsections discus Indonesia's baselines and maritime claims in particular in the form of concession blocks Indonesia designated in the Sulawesi Sea.

6.3.1.1 Indonesia's Baselines in the Sulawesi Sea

The baselines Indonesia designated along its coast fronting onto the Sulawesi Sea in 1960 connects the outermost points of outer lying islands started from Pulau Sebatik to the south to Pulau Bunyu, Pulau Panjang, Pulau Maratua, Pulau Sambit, and eastern tip of Landas Beach on Borneo Island before crossing to an island in the vicinity of Sulawesi Island.[941] The line then continues connecting the outermost points of islands/land in the northern beach of Sulawesi Island (see Chapter 3.8 for detailed discussion on baselines in the Sulawesi Sea). Despite lack of recognition from the international community, the newly established archipelagic baselines were used as a reference from which a 12-nautical miles territorial sea is measured. Figure 6.3 illustrates baselines configuration in the Sulawesi Sea.

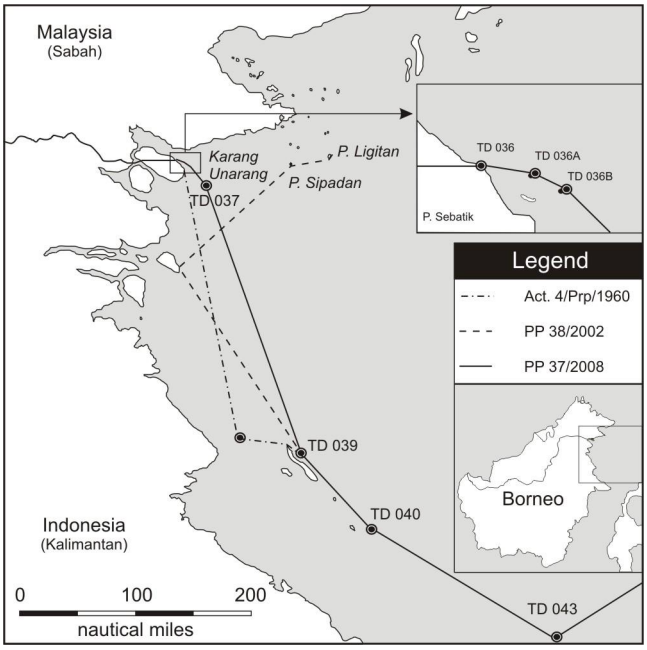

Figure 6.3 Baselines Configuration in the Sulawesi Sea[942]

In 2002, Indonesia revised its archipelagic baselines that significantly changed the configuration of baselines in the Sulawesi Sea.[943] The newly-designated baselines system included Sipadan and Ligitan Islands as basepoints in the revised baselines system. It is intriguing to observe that Indonesia included the two islands in their

[941] Indonesia, Act No.4 of the President of the Indonesian Republic. Reproduced in The Geographer, United States Department of State, 'Straight Baselines: Indonesia', Limits in the Seas, No 35 (1971), Washington DC, 2-4.
[942] Illustration by the author.
[943] Lembaran Negara Republik Indonesia Nomor 71 (2002) Peraturan Pemerintah No. 38/2002 tentang Daftar Koordinat Geografis Titik-Titik Garis Pangkal Kepulauan Indonesia. Diakses dari http://www.setneg.go.id/ tanggal 15 Agustus

baselines system while the sovereignty over them had yet to be determined as the case concerning the sovereignty over them was at that time ongoing before the ICJ. With this new baseline configuration Indonesia could theoretically claim a larger maritime area measured from the new baselines.[944] Consequently, the new baselines also generate larger archipelagic waters for Indonesia.

Indonesia's baselines around the Sulawesi Sea were revised once more in 2008, together with the revision of baselines in two other locations: Indian Ocean and around Timor Island.[945] The change, which serve to exclude Sipadan and Ligitan as basepoints, in light of the ICJ's ruling that sovereignty over these two features rested with Malaysia,[946] consequently changes maritime area claimed by Indonesia in the Sulawesi Sea. In addition to claiming outer limits of maritime area or jurisdiction, Indonesia also unilaterally claims maritime boundary lines between Indonesia and Malaysia and also between Indonesia and the Philippines. The lines are depicted on the official map of Indonesia published in 2008, 2009, 2010 and 2011.[947]

6.3.1.2 Indonesia's Maritime Claims in the Sulawesi Sea

In 1960, along with the designation of archipelagic baselines, Indonesia also, for the first time, officially declared a 12-nautical mile breadth territorial sea measured from archipelagic baselines instead of coastlines as was the norm at that time.[948] With regard to seabed or continental shelf, Indonesia based its claim on the 1958 Convention on the Continental Shelf, of which it is a party.[949] Based on the continental shelf definition in the 1958 Convention, Indonesia made its claim over continental shelf (seabed) in the Sulawesi Sea. Interestingly, at an early stage in the 1960s and 1970s, Indonesia did not clearly define its outer limits of continental shelf. There was no mention of the breath of it continental shelf either. Instead, Indonesia made sporadic claims over seabed areas by awarding concessions to oil and gas companies for exploration and exploitation

[944] For the development of Indonesian baselines designation, see for example: Schofield, C. and Arsana, I MA. (2009) Closing the Loop: Indonesia's revised archipelagic baselines system, Australian Journal of Maritime and Ocean Affairs; Volume 1, Issue 2; 2009; 57-62.
[945] See above note 944.
[946] Sipadan and Ligitan Case, see above note 70.
[947] *Peta NKRI*, 2011, see above note 640.
[948] See above note 941.
[949] Indonesia ratified the 1958 Convention through Act Number 19 of 1961. See Hamzah, A, 1984, see above note 192, p. 134-135

activities.[950] In this case, Indonesia did not define a final single line enclosing seabed it wished to claim but instead defined different areas representing blocks of concessions it issued to different, mostly, overseas companies.

Indonesia started its active claim over seabed area in the Sulawesi Sea in 1960s. As previously mentioned, the claim was not indicated by a single line of outer limit of continental self but instead by limits of different concession blocks. Based on data obtained from the Indonesian Ministry of Energy and Mineral Resources,[951] there are different concession areas defined by the government of Indonesia. It is interesting to observe that that there are overlapping areas among different block of concession defined in the area. A more recent block concession, while different in size and shape, often overlaps with a previously defined block of concession. This indicates that a later concession was defined to revitalise previous concession operations, not necessarily because the previous one was shown to have no resource potential running out of resource deposit to utilise. Area of Bunyu Block defined in the 1960s, for example, was largely covered by a newer block defined in 1970 called North East Kalimantan (see Figure 6.4). This is also the case of other concession blocks defined later.

While there are various concessions blocks defined by the government of Indonesia in the Sulawesi Sea there are some concession blocks considered to be the most relevant ones to maritime boundaries in the area. That is, they are located in the overlapping maritime claims and thus the potential location of a future maritime boundary delimitation between Indonesia and Malaysia. The most relevant blocks of concessions relevant to Sulawesi Sea are listed in Table 6.2.

Table 6.2 List of oil/gas concession blocks given by Indonesia in the Sulawesi Sea

No	Name	Area (km^2)[952]	Given to (Company)	Year
1	Bunyu		Japex	1966
2	N.E. Kalimantan		British Petroleum	1970
3	Bukat		ENI	1998

[950] Coordinates of relevant concession blocks in the Sulawesi Sea claimed by Indonesia are obtained from the Indonesian Ministry of Energy and Mineral Resources
[951] See above note 950
[952] Areas are calculated using KML Tools Project at UNH Cooperative Extension provided by the University of New Hampshire, US. The tool calculates area after each block was converted into a KML (Keyhole Markup Language) format. the KML Tool Project is available at <http://extension.unh.edu/kmlTools/>

4	Ambalat		ENI	1999
5	East Ambalat		Chevron	2004
6	Sebawang I		Total	1997
7	Sebatik		Star Energy	2005
8	Nunukan		Anadarko	2006

It can be inferred from the above sporadic awards that Indonesia's claims were mainly motivated by seabed resource exploitation purposes. There was no mention of safeguarding sovereignty or sovereign rights as what nowadays are commonly referred to by coastal States in relation to maritime claims. Figure 6.4 illustrates various concession block defined by Indonesia since 1960s. It shows eight different blocks of areas in the Sulawesi Sea some of which overlap each other.

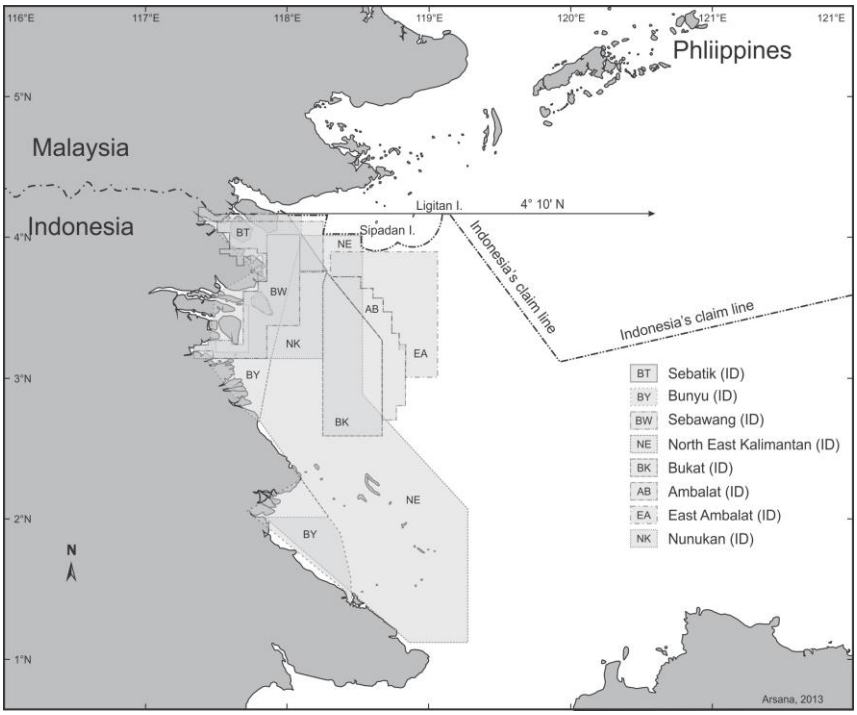

Figure 6.4 A Map Showing Concession Block in the Sulawesi Sea

From Figure 6.4, which was constructed based on a list of coordinates provided by the Indonesian Ministry of Energy and Mineral Resources, it is clear that the northernmost point of Indonesia's maritime claim in the Sulawesi Sea is around the latitude of 4° 10' North, where the land boundary lines divides Sebatik Island and terminates at a point on

the eastern coast of the Island.[953] This confirms Indonesia's long-time position that it preferred maritime boundary line in the Sulawesi Sea to be a continuation of the land boundary on Sebatik Island.[954] Indonesia wanted that maritime boundary line to start from the terminal point of the land boundary on the Sebatik Island along the latitude of 4° 10' North.

Even though some of the concession blocks were defined after the entry into force of LOSC for Indonesia, the blocks claimed by Indonesia have nothing to do with water superjacent to them. In other words, the claims, while proposed under LOSC, were only for the seabed rather than for the water column also. It is understandable that they concerned only seabed because the main motivation of the claim was oil and gas deposit. Unlike EEZ, the outer limits of which are measured purely based on distance, the blocks seemed to be defined based on the existence or suspected existence of mineral deposits, not for water living resources such as fish.

Figure 6.4 also illustrates Indonesia's unilateral claim regarding maritime boundaries in the Sulawesi Sea. In addition to concession blocks Indonesia has claimed since 1960s, Indonesia also declared its forward position as depicted in its official maps from published at least since 2008.[955] Apparently, Indonesia's unilateral claim line follows existing concession blocks it has previously defined. It starts by following the northern side of Bunyu Block and then North East Kalimantan. It continues to follow the twelve nautical miles of territorial sea of Sipadan and Ligitan Islands, the 4° 10' N line and heads southeasterly to meet a proposed trijunction point of Indonesia, Malaysia and the Philippines. Indonesia's claim differs from its longstanding claim following the parallel line of 4° 10' N apparently because Sipadan and Ligitan are now clearly Malaysian territories. This line becomes the position that Indonesia maintains in maritime delimitation with Malaysia.

[953] Indonesia's position seems to be consistent with its view on the 1891 Dutch-British Convention establishing a 4° 10' north parallel of latitude as the dividing line between the respective possessions of Great Britain and the Netherlands in the disputed area. Indonesia views that maritime area and islands located to the south of the parallel line belong to Indonesia, as the successor to the Netherlands. See also, Sipadan and Ligitan Case, see above note 70.
[954] *Ibid.*
[955] *Peta NKRI*, see above note 640.

6.3.2 Malaysia's Claims

Similar to Indonesia, Malaysia is also a party to the United Nations Contention on the Law of the Sea 1982.[956] However, before the entry into force of LOSC, Malaysia had also made unilateral maritime claims adjacent to its land territory. This subsection discusses Malaysia's baselines, the reference from which its maritime claims are measured. It is followed by discussion on maritime claims in the form of forward position regarding maritime boundaries and oil concession blocks.

6.3.2.1 Malaysia's Baselines

Malaysia's baselines are governed by the Baselines of Maritime Zones Act 2006 (Act 660), which was enacted on 1 May 2007 [PU(B) 120/07].[957] Through the 2006 Act, it is stated that Malaysia defines baselines in accordance to the LOSC. The Act states that baselines can be normal baselines, which are "the low-water line along the coast as marked on large-scale chats", low water line of a reef and of a low-tide-elevation.[958] In addition, there is also a confirmation that the method of straight baselines may also be employed.[959] While the 2006 Act clearly states options for baselines that Malaysia employs or may employ for the reference of measuring maritime zones, the Act does not, however, contain specific types or location of Malaysia's baselines, for example through the provision of lists of coordinates of baselines turning points of via maps illustrating baselines claimed. As for possible straight baselines, for example, the 2006 Act does not specify any location where straight baselines will be designated. It only provides broad and open statement that Yang di-Pertuan Agong may declare geographical coordinates of basepoints forming Malaysia's baselines. At the time of writing (November 2013), the list of coordinates mentioned has yet to be issued. With this 2006 Act, Malaysia essentially indicated that various types of baselines would be claimed but keep it open in terms of their exact locations.

Prior to the 2006 Act, Malaysia published a map in 1979 depicting its outer limits of its claimed maritime zones. However, there is no explicit statement regarding Malaysia's baselines. From the outer limits maritime zones, especially of the territorial sea,

[956] Chronological lists of ratifications of LOSC, see above note 221.
[957] Laws of Malaysia, Act 660, Baselines of Maritime Zones Act 2006 (hereinafter Act 660).
[958] Act 660, Article 5 (1).
[959] Act 660, Article 5 (2).

Malaysia's baselines can only be inferred, as how some scholars have done.[960] With regard to the Sulawesi Sea, there is no specific claim concerning baselines that Malaysia has apart from the 2006 Act. This, however, means that all possibility in designating baselines as set out in the 2006 Act may possibly be applied. An analysis of potential baselines suggests that it is possible for Malaysia to employ straight baselines in the Malacca Strait and off the northeast and southeast coast of Sabah.[961] As discussed in Chapter 5, Malaysia's designated straight baselines along its coast fronting the South China Sea are depicted in its submission of the outer limits of continental shelf of beyond 200 nautical miles of Malaysia in the South China Sea.[962] This, to an extent, provides further confirmation and certainty regarding speculation and question regarding whether or not Malaysia will employ straight baselines. For instance, along its relatively uncomplicated coast bordering the South China Sea, it appears that Malaysia, wherever possible, is highly likely to designate straight baselines for the purposes of measuring maritime areas seaward.

6.3.2.2 Malaysia's Maritime Claims in the Sulawesi Sea

Malaysia's claim over continental shelf is proclaimed through its *Continental Shelf Act* No. 57 of 28 July l966, which was amended by Act No. 83 of l972.[963] It defines the continental shelf of Malaysia in accordance with the definition provided the 1958 Convention. In 1969 Malaysia officially declared its claim over a 12 nautical miles of territorial sea through the Government of Malaysia's Ordinance No. 7 of 2 August 1969.[964] The 1969 Ordinance also states that the claim of 12 nautical miles of territorial sea is with exception for the Malacca Strait, Sulu Sea and Celebes Sea. Furthermore, the 1969 ordinance states that territorial sea claims in the three areas are to be measured in

[960] See, Valencia, M. J., 2003, "Validity of Malaysia's baselines and territorial sea claim in the northern Malacca Strait." Marine Policy Volume 27, Issue 5 pp. 367-373.
[961] Forbes, V. L., 2007, "The Territorial Sea Datum of Malaysia." MIMA Bulletin 14: 3-8.
[962] Commission on the Limits of the Continental Shelf (CLCS), Outer limits of the continental shelf beyond 200 nautical miles from the baselines: Submissions to the Commission: Joint submission by Malaysia and the Socialist Republic of Vietnam, available at <http://www.un.org/Depts/los/clcs_new/submissions_files/submission_mysvnm_33_2009.htm>, accessed on 20 May 2013.
[963] Act No. 57 of 28 July l966, as Amended by Act No. 83 of l972 (hereinafter Continental Shelf Act l966), available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/MYS_1966_Act.pdf>,on 16 July 2013.
[964] Emergency (Essential Powers) Ordinance, No. 7, 1969, as amended in 1969 (hereinafter Malaysia's 1969 Ordinance), available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/MYS_1969_Ordinance.pdf>, on 20 July 2013.

accordance with relevant article in the 1958 Convention.[965] This was then followed by the Malaysia's unilateral maritime claim which was officially expressed through the issuance of a map called Peta Baru (new map) in 1979.[966] The 1979 map depicts Malaysia's claim over maritime area in the Malacca Strait, Singapore Strait, South China Sea and Sulawesi Sea. In the Sulawesi Sea in particular, Malaysia made a claim by drawing lines starting from terminal point of Indonesia-Malaysia land border on Pulau Sebatik. The line heads in a south-easterly direction to a point with coordinates of 4° 08' N and 117° 56'.95 E and then continues through three turning points to reach a point at 3° 08'.67 N and 118° 46'.17 E. The line then continues to the east via three turning points to reach an easternmost point at 3° 02'.75 N and 120° 15'.75 E. From this point it turns in a north-westerly direction to the last point at 4° 23' N and 120° 00' E, which is deemed to be the tri-point of Indonesia, Malaysia and the Philippines. Malaysia's claim in the region forms a pocket covering a large portion of the Sulawesi Sea as illustrated by Figure 6.5.

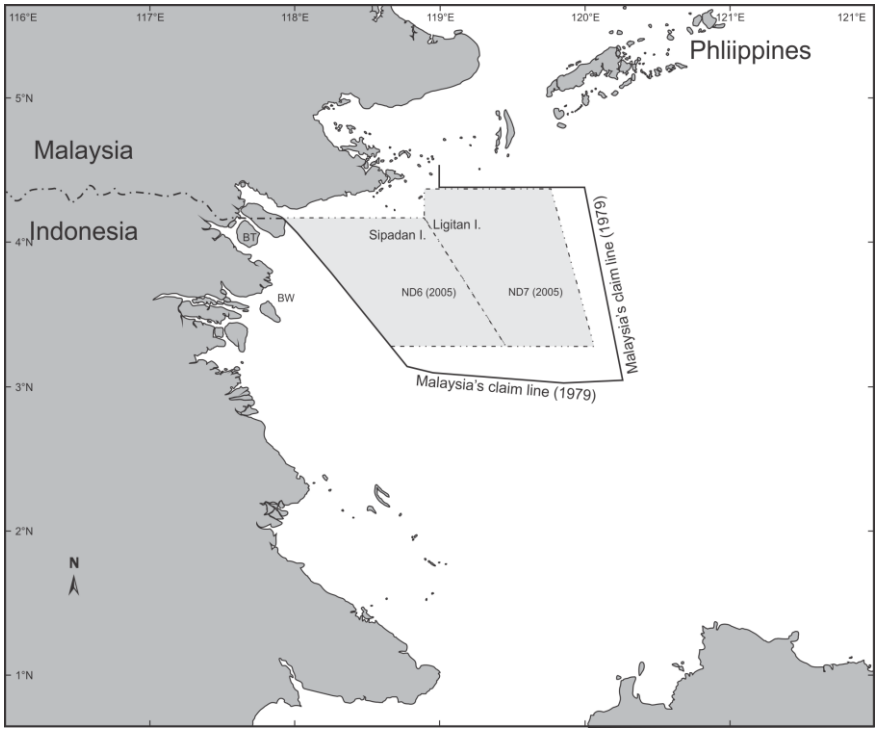

Figure 6.5 Malaysia's Maritime Claims in the Sulawesi Sea

[965] Malaysia's 1969 Ordinance, Article 3.
[966] The 1979 map, also called *Peta Menunjukkan Sempadan Perairan dan Pelantar Benua Malaysia* [Map Showing the Territorial Waters and Continental Shelf Boundaries of Malaysia], was published by the Malaysian Directorate of National Mapping in two sheets, 21 December 1979, on file with the author.

In response to this unilateral claim, Indonesia sent a protest note to Malaysia stating that Indonesia does not recognise the 1979 map (*Peta Baru*).[967] Indonesia sent the protest note in February 1980 in relation to the fact that Pulau Sipadan and Pulau Ligitan were also included on the map as part of Malaysian territory, while the dispute over their sovereignty had not yet been settled. Protest notes were also sent to the Malaysian Authorities by the Philippines and China primarily in relation to the Spratly Islands. Singapore sent a protest note in April 1980 in relation to Pedra Branca that was included as part of Malaysia's territory, sovereignty over which was not yet decided at that time.[968] Some other protest notes were also sent by Thailand, Vietnam, Taiwan, and United Kingdom on behalf of Brunei Darussalam. Simply put, the 1979 map is Malaysia's map illustrating its unilateral maritime claims. It is clear from the abovementioned protest notes that the 1979 map was not recognized by Malaysia's neighbours. However, the 1979 map remains an official map of Malaysia to the time of writing.

In 1984, Malaysia issued the Act No. 311 regarding EEZ and certain part of continental shelf.[969] With this 1984 Act, Malaysia claimed EEZ in accordance to relevant provision governing EEZ in the LOSC, the breadth of which is 200 nautical miles measured from baselines.[970] The 1984 Act also states that, where applicable, the breadth of EEZ is defined by relevant provisions in such agreement with its neighbouring States.[971] Notwithstanding the fact that Malaysia has been clear regarding its maritime claims by issuing relevant regulations, it has yet to publish geospatial information regarding the extent of the claim except for the 1979 map showing Malaysia's claims over territorial sea and continental shelf. In particular information on the location and types of Malaysia's baselines remains lacking although it is clear that use of straight baselines is favoured by Malaysia.

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[967] Haller-Trost, R. (1998), The Contested Maritime and Territorial Boundaries of Malaysia An International Law Perspective, Kluwer Law International.

[968] The International Court of Justice decided the case on 23 May 2008 and awarded Pedra Branca to Singapore. See Pedra Branca Case, see above note 73.

[969] Exclusive Economic Zone Act, 1984, Act No. 311, An Act pertaining to the exclusive economic zone and certain aspects of the continental shelf of Malaysia and to provide for the regulations of activities in the zone and on the continental shelf and for matters connected therewith (hereinafter Exclusive Economic Zone Act 1984), available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/MYS_1984_Act.pdf>, on 20 July 2013.

[970] Exclusive Economic Zone Act 1984, Article 3 (1).

[971] Exclusive Economic Zone Act 1984, Article 3 (2).

6.4 Maritime Incidents in the Sulawesi Sea

6.4.1 The Ambalat Block Case of 2005

In the early part of 2005, Indonesia and Malaysia were involved in an intense dispute over the Ambalat offshore area or 'Ambalat Block'. The case occurred after Malaysia's state oil company, Petronas, awarded exploration concession rights in the area to Shell on 16 February 2005. Indonesia had awarded a contract over the same area to another multinational oil giant, Unocal, on 12 December 2004. The matter was complicated by the fact that on 27 September 1999, Shell was awarded a production-sharing contract by Indonesia to explore in the same area, but the company terminated that agreement on 4 October 2001, and handed over the concession to Italian oil producer ENI.[972] The dispute received widespread attention, especially in Indonesia, with almost all television stations and newspapers making it headline news for a reasonably long period. The causes of the dispute and how the dispute was associated with maritime boundaries between Indonesia and Malaysia were evident and remain not well understood.[973]

The natural resources thought to exist in the seabed and superjacent water column above the Ambalat Block represents a key source of concern and interest on the part of both Indonesia and Malaysia. As previously mentioned, Indonesia started exploration activities in respect of seabed energy resources in the region in 1960s by the establishment of concession block called Bunyu. Two other concession blocks called Ambalat and East Ambalat were defined in 1999 and 2004 respectively. As previously explained, the two blocks were defined by Indonesia by ignoring Malaysia's unilateral claim in the Sulawesi Sea as depicted in its 1979 map. Consequently, Ambalat and East Ambalat blocks, as illustrated by Figure 6.6, largely overlap with maritime area Malaysia unilaterally claimed through its 1979 map. Most of the East Ambalat block, for example, is situated within Malaysia's 1979 claim while around half of Ambalat Block is also located inside Malaysia's unilateral claim. This seems to confirm that Indonesia does not recognise Malaysia's unilateral claim through the 1979 Map, in line with protest note it sent to Malaysia in February 1980.[974]

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[972] The Jakarta Post, 2005. BP Migas questioned role over Ambalat. 16 March 2005, Jakarta Indonesia

[973] Arsana, I M. A. 2010. "The settlement of the Ambalat block case through maritime delimitation; A geospatial and legal approach [in Indonesian]", Jurnal Ilmiah Widya Sosiopolitika Vol. I No. 1 (June): pp. 46-58.

[974] Haller-Trost, R. (1998), *The Contested Maritime and Territorial Boundaries of Malaysia An International Law Perspective*, Kluwer Law International.

On the other hand, Malaysia seemed to be consistent with its unilateral claim in the Sulawesi Sea depicted in the 1979 Map, even though almost all of its neighbours have filed their protest notes on the validity of the 1979 map. In 2005, Malaysia issued a concession to an oil and gas company for maritime areas (seabed) enclosed by the 1979 unilateral claim, parts of which overlap with Indonesia's Ambalat and East Ambalat. Malaysia in this case defined two seabed block areas called ND6 and ND7 and, through Petronas,[975] awarded its own concession for the two blocks to Petronas Carigali in partnership with an international oil company named Royal Dutch/Shell Group. From an Indonesian perspective, what Malaysia did led to the emergence of maritime dispute since Malaysia gave concession for maritime areas, the concession of which had previously been given to other company by Indonesia.[976] From a Malaysian perspective, this action was merely act of reconfirming Malaysia's claim to maritime areas claimed since 1979 through the *Peta Baru*. Nonetheless, Malaysia giving concession for ND6 and ND7 which largely overlap with Ambalat and East Ambalat confirms that there is a substantial area of overlapping maritime claims between Indonesia and Malaysia in the Sulawesi Sea. In other words, Indonesia and Malaysia both believe that they are entitled to carry out exploration and exploitation in the same seabed in the Sulawesi Sea. Different concession blocks claimed by Indonesia and Malaysia and potential overlapping claims are illustrated in Figure 6.6.

[975] Petronas is the national company of Malaysia, which was incorporated in 1974. More information about Petronas is accessible through its official website: www.petronas.com

[976] See, Schofield, C.H. and Storey, I., "Energy Security and Southeast Asia: The Impact of Maritime Boundary and Territorial Disputes", Harvard Asia Quarterly, Vol.IX, No.4 (Fall 2005): 36-46, at 37-41.

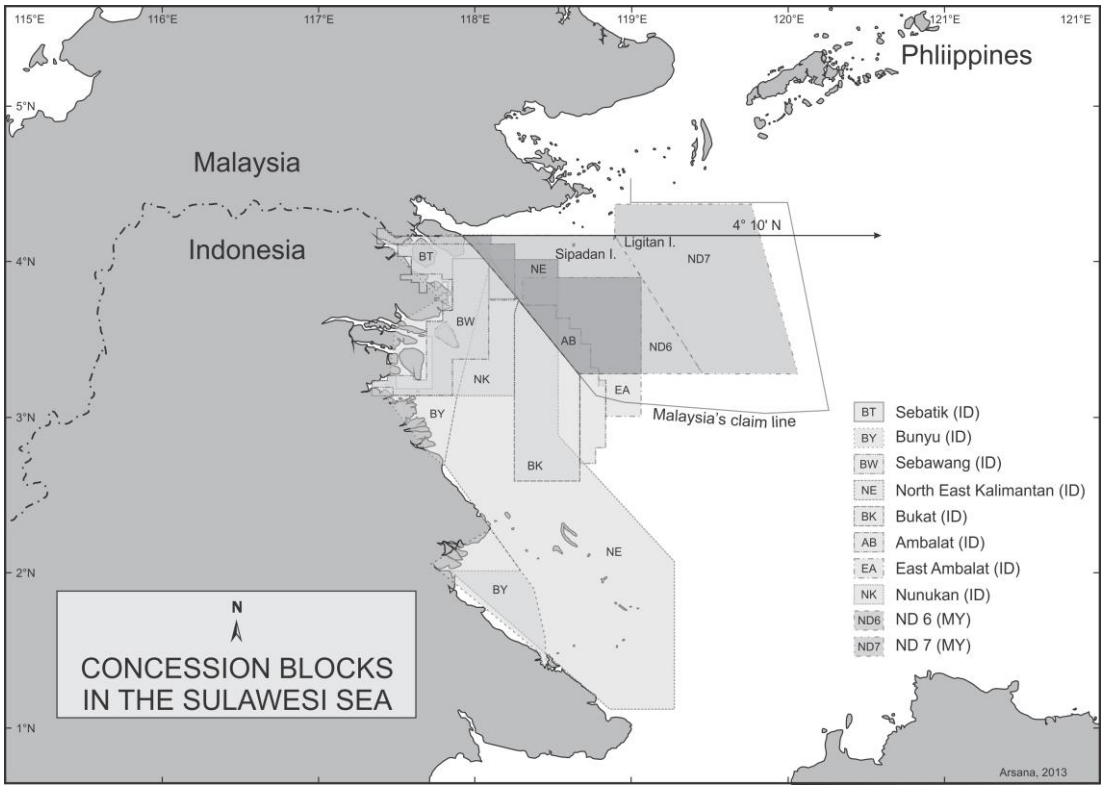

Figure 6.6 Potential Overlapping Claims Due to Different Concession Blocks in the Sulawesi Sea Defined by Indonesia and Malaysia

While it is true that Indonesia and Malaysia both claimed maritime area unilaterally in the Sulawesi Sea, it is intriguing to observe that Malaysia did not send any protest note to Indonesia when Indonesia issued the concessions over Ambalat and East Ambalat to ENI and Chevron respectively.[977] It is fair to say that this was viewed by the Indonesian side as an indication of acquiescence from the Malaysian side. However, Malaysia's silence does not necessarily mean agreement and this was confirmed by Malaysia issuing concession for ND6 and ND7 in 2005.[978] It is reasonably clear from the above explanation that the maritime dispute in the Sulawesi does involve various seabed blocks unilaterally issued by Indonesia and Malaysia. There are also several different names for various blocks in the area and Indonesia and Malaysia even called the same area/block with different name. It is therefore intriguing to see that the case is generally publically known in Indonesia and internationally as the 'Ambalat case', while in fact more than two blocks (Ambalat and East Ambalat) are involved in the case. Figure 6.6

[977] Information on the details of the concession is obtained from Ministry of Energy and Mineral Resources. See also above note 950
[978] See above note 976.

illustrates that Malaysia's ND6 and ND7 do not only cover Ambalat and East Ambalat of Indonesia's but also part of other blocks such as Bunyu and North East Kalimantan. It seems that it was because Ambalat and East Ambalat were the only active blocks when the tension started. The media then used the term Ambalat to refer to the case.

During the 2005 tensions, there were a lot of Indonesian citizens responding to the incident aggressively. Demonstrations were everywhere and the slogan of "Crush Malaysia" (in Bahasa Indonesia "Ganyang Malaysia") was once again expressed by the crowd. [979] Some even opened registration for volunteers of "Ganyang Malaysia".[980] It was not uncommon to see during the time that many Indonesian people were willing to be volunteers to fight against Malaysia.[981] In general, what people understood about the incident was that Malaysia tried to claim something that Indonesia had already been in possession of. This is to an extent understandable since Indonesia had made its claim over seabed areas in the Sulawesi Sea by establishing Ambalat and East Ambalat Block when Malaysia also defined ND6 and ND7 which largely overlap with Ambalat and East Ambalat. Put simply, people viewed that Malaysia was trying to take over Ambalat from Indonesia.

In addition to concession issues, it was also reported by Gatra, that a Malaysian warship also entered waters around the Ambalat Block and demonstrated provocative actions until the Indonesian side then warned the warship to leave the area.[982] The tension was building since both ships of Indonesia and Malaysia were armed even though their weapons were still sealed/wrapped. The report released by Gatra also stated that Malaysian army officials attacked Indonesian workers who were building a lighthouse in Karang Unarang owned by the Indonesian Ministry of Transportation. Karang Unarang is a small rock or low tide elevation located in the vicinity or eastern coast of

[979] The "Ganyang Malaysia" campaign was lead by President Soekarno in 1960s to crush Malaysia, which in his opinion was a new colonial base used by British during the 1960s. It was one of the manifestations of his agenda to be an opposition to what he termed "Nekolim", the "Forces of Neo-colonialism and Imperialism". See, Ariati, N.W. 2012. The Indonesian Massacre of 1965 and Reconciliation Efforts in Contemporary Indonesia, *International Symposium on Conflict and Resolution, Kigali-Rwanda; Jan 9-13*
[980] See, Tempo, 2005. Students of Ambon open registration for "Ganyang Malaysia" [*Giliran Mahasiswa Ambon Buka Pendaftaran "Ganyang Malaysia"*]. Available at <http://www.tempo.co.id/hg/nusa/maluku/2005/03/10/brk,20050310-11,id.html> on 20 April 2011.
[981] See above note 980
[982] See above note 934

East Kalimantan. In addition to the reported attack, military personnel of Malaysia also reportedly carried out a military exercise close to Indonesia-Malaysia borders.[983]

The report released by Gatra in 2009 seems to focus on provocative issues and was arguable sensationalised in character. There was no mention about pending maritime boundaries in the Sulawesi Sea as one of the reasons for the tensions. Furthermore, like other news in Indonesian media during the time of incident, Gatra uses terms like 'infringement' and 'border crossing' to describe what happen in the Sulawesi Sea even though no maritime boundaries have been settled in the area between Indonesia and Malaysia. The use of such terms can easily mislead readers, especially those without adequate understanding on legal and technical aspects of maritime boundaries between Indonesia and Malaysia in the Sulawesi Sea.

Amid the tension, the government of both States took necessary steps to find solutions. To defuse tensions, the two States started intensive negotiation in 2005 for a final objective to settle maritime boundaries between them. The Ambalat case sparked the intensive negotiation even though it has to be admitted that the negotiation has never been designed to solve maritime boundary issues in the Sulawesi Sea only. Indonesia and Malaysia view the issue in the whole context of Indonesia and Malaysia. Sulawesi Sea is only one of regions where Indonesia and Malaysia need to settle their maritime boundaries.

6.4.2 The Ambalat Block Case of 2009

Following the tensions built in 2005 regarding the Ambalat Block in the Sulawesi Sea, Indonesia-Malaysia relations proved to be prone to the impacts of unresolved maritime boundary issues. However, no major incident took place until 2009. Then, once again, the Ambalat case emerged and caused tension between Indonesia and Malaysia. This time, a Malaysian vessel allegedly crossed the perceived maritime boundary between Indonesia and Malaysia in the Sulawesi Sea and entered Ambalat area.[984] Considering that maritime boundaries have yet to be settled in the area, the allegation was certainly

[983] See above note 934

[984] Gatra. 2009. Malaysia once again commits border crossing [*Malausia Kembali Langgar Batas Wilayah*]. Available at <http://www.gatra.com/artikel.php?id=126654>. Accessed on 20 August 2009. See also, Prameshwari, P., M.J. Sihaloho, and A. Tejo. "Malaysia Enters Ambalat Again". The Jakarta Globe, 31 May 2009 <http://www.thejakartaglobe.com> (accessed 20 October 2011).

inaccurate. In addition, Ambalat, once again, is seabed area and it has nothing to do with vessel moving on the water column.

Even though it is a fact that maritime boundaries have yet to be settled in the Sulawesi Sea, where Ambalat Block is located, the term "border crossing" is commonly used. A report in Gatra, for example, stated that the Indonesian Navy recorded around 94 infringement (border crossing) were committed by Malaysian vessels in 2007 alone and around 38 in 2008. The report also stated that the number of infringement increased in 2009. On 4 June 2009, it was reported that a Malaysian warship entered maritime area around the Ambalat block. Indonesian Navy First Commodore R.H. Harahap of *Gugus Tempur Laut Armada Timur*, in Tarakan, East Kalimantan, stated that "the Malaysian vessel entered Indonesian waters up to one nautical mile".[985] It was also asserted that Indonesian Vessels, *KRI Suluh Pari* and *KRI Hasanuddin*, chased the vessel away. Some others observed that the Ambalat dispute saw Indonesia and Malaysia "deploying warships, fighter jets, gunboats, and armed forces in strategic areas poised for attack".[986]

Similarly, the use of phrases such as "border violation", "border crossing" or alike are also common from people in the Ministry of Foreign Affairs. With regard to the 2009 incident, the Indonesian Foreign Ministry spokesman asserted that Indonesia had "sent 36 protest notes to Malaysia" including the one in relation to the 2009 incident.[987] The protest notes, according to the spokesman, were to confirm Indonesian entitlement over the Ambalat Block. This statement once again confirms Indonesia's official position toward maritime delimitation in the Sulawesi Sea, especially that related to the Ambalat Block. In other words, Indonesia views that its claims over seabed areas in the Sulawesi Sea since the 1960s also represent its proposal on maritime boundaries in the area. On the other hand, an official statement from Malaysian Foreign Minister asserted that there was "no official protest from Indonesia" against alleged encroachment by Malaysian enforcement agencies into the disputed waters around Ambalat Block.[988] It seems that there are a number of different views between Indonesia and Malaysia

[985] Gatra, 2009. Ambalat not merely a seabed block [*Ambalat Bukan Sekadar Blok*]. Available from <http://arsip.gatra.com/2009-06-11/artikel.php?id=127091> on 18 September 2010.
[986] Jinn Winn OHONG, "Mine, Yours or Ours?": The Indonesia-Malaysia Disputes over Shared Cultural Heritage, SOJOURN: Journal of Social Issues in Southeast Asia Vol. 27, No. 1 (2012), p. 27
[987] *Kompas*. 2009. 36 Protest Notes of RI to Malaysia. Available at <http://english.*Kompas*.com/read/2009/06/06/09225482/36.Protest.Notes.of.RI.to.Malaysia>. Accessed on 20 September 2010.
[988] Ambalat issue: 'No official protest from Indonesia'. Available at <http://thestar.com.my/news/story.asp?file=/2009/6/15/nation/20090615195209>. Accessed on 21 September 2010.

regarding what constitute official protest when it comes to activities in disputed areas such as waters around Ambalat Block in the Sulawesi Sea.

According to Gatra, the incident taking place in 2009 regarding Ambalat Block was not as tense as the one in 2005. However, the reaction from the Indonesian government seemed to be stronger compared to that in the 2005 incident. The Gatra report states that Indonesia was more responsive by sending Commission I of the Indonesian parliament to Malaysia to clarify the incident. In addition, Indonesia also intensified preparation on maritime delimitation for the next bilateral negotiation by enhancing collaboration and coordination among Indonesian negotiating team members.[989]

Regarding the incident in the Sulawesi Sea in 2009, Malaysia had its own view. It seemed that Malaysia was of the official view that the maritime boundaries in the Sulawesi Sea are the ones unilaterally claimed by Malaysia. This was confirmed by a statement by the then Malaysian Foreign Minister, Datuk Anifah Aman, where terms such as "incursions by the Indonesians in Ambalat".[990] By stating this he implied that Indonesian coming to waters superjacent to Ambalat Block was viewed as an aggressive entrance into Malaysian sovereign rights. In other words, Malaysia also viewed that Indonesians entering waters around Ambalat Block represents an infringement. Furthermore, the Malaysian Foreign Minister, stated that Malaysia had filed 13 protests notes to Indonesia in relation to what Malaysia referred to as incursions in Ambalat between 2007 and April 2009.[991]

The 2009 incident in Ambalat also invited top leaders in Indonesian and Malaysia to step up. The Indonesian President Susilo Bambang Yudhoyono contacted Malaysian Prime Minister Nazib Razak on 9 June 2009 via telephone to discuss the issue. The aim of the conversation was to prevent "acts of provocation that might worsen the tension."[992] President Yudhoyono told *The Jakarta Post* that both leaders agreed that the issue was an important matter for both States. Apart from reasonably aggressive reaction of various parties in Indonesia to the Ambalat case, President Yudhoyono

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[989] See above note 985.
[990] Bernama, 2009. Ambalat Issue: Malaysia Submits 13 Protest Notes. Available from <http://maritime.bernama.com/news.php?id=418103&lang=en> on 20 November 2013. Even though Minister Aman used the term Ambalat in his statement, later in the news, Minister Aman "clarified that Malaysia used the term Sulawesi Sea and not Ambalat when referring to the area which was under dispute". Malaysia officially recognises the seabed area as ND6 and ND7.
[991] *Ibid.*
[992] The Jakarta Post. 2009. SBY calls Najib over Ambalat. Available at http://www.thejakartapost.com/news/2009/06/09/sby-calls-najib-over-ambalat.html

insisted that Indonesian and Malaysia would opt for peaceful resolution through negotiation. He expected that the incident can be used as a reason to speed up negotiation process between the two neighbours. President Yudhoyono asserted his "expectation to negotiators the talks could be completed more quickly without much trouble".[993]

Direct communication between President Yudhoyono and Prime Minister Razak may be viewed as a positive and swift response to prevent the incident from spreading and affecting much wider aspects of Indonesia-Malaysia relation. On the other hand the direct contact between the two leaders also indicated that the issue was reasonably serious and important to handle by top leaders from the two States.

6.4.3 Misunderstandings Concerning Ambalat

Since the incident in 2005 regarding oil and gas concession given by Indonesia and Malaysia, the term Ambalat has been widely used to refer to maritime area in the Sulawesi Sea. The use of term Ambalat to refer to maritime area in the Sulawesi Sea was seemingly initiated by the Indonesian media since the blocks in dispute are known as Ambalat and East Ambalat.[994] As previously explained, Malaysia uses different names for the seabed Area which are ND6 and ND7 and consequently would not voluntarily use the term Ambalat to refer to the area. Instead, as asserted by Malaysia Foreign Minister, Malaysia use to call the area subject to dispute as "Sulawesi Sea".[995] However, it seems that after the incidents occurring in 2005 and 2009, Malaysian media also use the same term "Ambalat" when referring to the disputed maritime area.

Interestingly, the term has also been used to refer to both seabed and water column, which in this case, are in fact two different regimes. Ambalat, for what it was originally defined, refers to seabed only, which falls within the regime of continental shelf (seabed). Therefore, Ambalat should not have been used to refer to water column, which is mainly EEZ. The statement of "Malaysian vessel enters Ambalat area" that can easily be found in electronic and printed Indonesian media is therefore inaccurate. With no doubt, a vessel cannot go to Ambalat or East Ambalat because the blocks are in fact seabed area. This is a common misunderstanding about Ambalat in Indonesia.

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[993] See above note 992
[994] There are several concession blocks defined by Indonesia in the Sulawesi Sea. See above note 950
[995] See above note 991

This misunderstanding was also reflected in the way people reacted in mass demonstration. Many people were willing to come to Ambalat voluntarily to explicitly demonstrate Indonesia's presence in Ambalat.[996] Unfortunately, they did not understand that Ambalat is seabed area, which is under water, so human being could not go there without sophisticated equipment. The Director of Territorial Politics and Security of the Indonesian Ministry of Foreign Affairs, Arief Havas Oegroseno,[997] often used this situation to explain how people, especially the laymen, lack of understanding regarding Ambalat. This misunderstanding often led to unnecessary response from the people.

Secondly, Ambalat is often understood as an island, not only by the laymen but also by educated people in Indonesia. To make things worse, national news media also contributed to provide information to the public. Indosiar, one of the leading television stations in Indonesia, through its website once published an article entitled "Profile of Ambalat Island" (in Bahasa Indonesia).[998] This kind of misunderstanding is not applicable to Indonesia but also Malaysia. In an article published by Sabah Kini, for example, the writer also uses the term "[P]ulau Ambalat" or "Ambalat Island" when referring to where the incident took place.[999]

Failure to understand that Ambalat is in fact seabed area instead of an island could lead to negative consequences. An island is part of sovereignty for which a State posses full control over, while a seabed area, especially that beyond 12 nautical miles from baselines, is part of a coastal State's sovereign rights. Unlike sovereignty, for sovereign rights, a coastal State has no full control over but only rights to utilise resources. These two terms, sovereignty and sovereign rights, clearly have significantly different meanings. Having understood the difference between sovereignty and sovereign rights, it is fair to say that there is stronger willingness for a State to protect its sovereignty than its sovereign rights. Conversely, there is potentially more scope to compromise where sovereign rights rather than sovereignty are at stake. Mistakenly thinking of Ambalat as an island, consequently raising sovereignty concerns, is therefore a blunder

[996] See above note 918.
[997] Mr. Oegroseno is, at the time of writing, the ambassador of Indonesia for Belgium.
[998] Indosiar, Ambalat Island Profile [*Profil Pulau Ambalat*], available at <http://www.indosiar.com/fokus/profile-pulau-ambalat_80506.html>
[999] See for example, *Sabah Kini*, 2009. Ambalat Issue: A test for Najib's leadership (in Bahasa Malaysia). Available at <http://www.sabahkini.net/index.php?option=com_content&view=article&id=1574> on 20 November 2013.

since it may motivate people to act more aggressively.[1000] Sovereignty, among Indonesian people in general, is easily to be related to nationalism, something remains a sensitive issue for many people. Hence, they were more aggressive in responding the issue since there might think that they were fighting for sovereignty.

As previously highlighted, there was understanding among Indonesians that Malaysia infringed maritime boundaries by giving concession over ND6 and ND7 to an oil and gas company. It is worth noting in this context that maritime boundaries have yet to be settled in the Sulawesi Sea. Accordingly, even though seabed exploration activities have been carried out since the 1960s, there has not been any bilateral agreement between Indonesia and Malaysia defining precisely which parts of the seabed belongs to Indonesia and which to Malaysia. In other words, areas on which exploration and exploitation were conducted were defined based on unilateral claims instead of mutual agreement.[1001]

Both of the States concerned, Indonesia and Malaysia are in similar position where each has its own unilateral claim. Indonesia is of the view that maritime boundaries are represented by its unilateral claims over seabed block since the 1960s, which has been confirmed by its subsequently-published maps.[1002] On the other hand, Malaysia also views that the boundaries are based on its unilateral claim visualised on the 1979 Map.[1003] There is nothing inherently wrong with unilateral claims of both Indonesia and Malaysia since that is how States traditionally advance their national claims before actual maritime delimitation takes place. However, for those who do not understand how maritime delimitation works in practice, they might find it challenging to understand the situation. Generally, the laymen in Indonesia, in particular, think that the unilaterally-claimed lines are final and binding, while it is a fact they are only proposal. Activities carried out by Malaysian beyond or by crossing Indonesia's unilaterally-claimed line would be viewed by Indonesia as an infringement and vice versa. This

[1000] See also: Antara (2009a) Foreign Minister: Ambalat Block is Indonesia's sovereign rights [*Menlu: Blok Ambalat Itu Hak Berdaulat Indonesia*]. Available at <http://news.antara.co.id/berita/1246027380/menlu-blok-ambalat-itu-hak-berdaulat-indonesia> on 30 June 2009.
[1001] See also Sutisna, S. and Arsana I M. A. 2011. Mapping Maritime Delimitation Dispute between Indonesia and Malaysia in the Sulawesi Sea [*Memetakan Sengketa Batas Maritim Indonesia dengan Malaysia di Laut Sulawesi*], *Journal of Defence, Ed. II (May)*
[1002] See above note 947.
[1003] See above note 966.

misunderstanding is not uncommon in maritime areas where maritime boundaries are still pending.

6.4.4 The Roles of the Media

A senior academic and a government official wrote on the possibility of public opinion being misled about Ambalat in Indonesia in the aftermath of the Ambalat case emerging in February 2005.[1004] The article discusses inaccuracy of information provided by the Indonesian media regarding the Ambalat case. In other words, the media plays important role in shaping public opinion about the case between Indonesia and Malaysia. By observing headlines in national newspapers and television stations in Indonesia during the case in 2005 for example, it is fair to say that most of the coverage was provocative and tended to exploit the negative emotion of the people towards the case. The Ambalat dispute provoked anti-Malaysian street demonstrations, flag-burnings and inflammatory nationalist commentary in the media.[1005]

Research was also conducted by Malaysian researchers regarding the role of media in Indonesia in particular, in relation to shaping public opinion.[1006] The study investigated news coverage by various media in Indonesia, either text or audio-visual based. One of the conclusions reached was that the media reports disproportionally focused on what people or the laymen were saying as opposed to the publishing the views of the Indonesia government toward the Ambalat Block case. Consequently, the media was dominated by the opinions of people who wanted to respond aggressively to the case by preferring war as oppose to diplomatic settlement, for example. Meanwhile, the Indonesian government's views, which favoured a diplomatic approach, were not adequately covered. This led to at least two consequences. First, it excited more negative emotions in the people who read such news reports and second, it generated negative impressions on the part the international community since such news coverage could imply that Indonesia did not prefer peaceful dispute settlement.

Since the fall of Soeharto regime in 1998, Indonesia has been enjoying significantly enhanced press freedom as compared with previously. As per 2007 alone, when the study was conducted, Indonesia had around 2,000 printed media, 11 national TV

[1004] See above note 918.
[1005] Schofield and Storey, 2005: 37-38
[1006] Lai Che Ching & Abd.Latif & Lee Kuok Tiung Universiti Malaysia Sabah, Malaysian Journal of Communication Vol 23: 14-27

stations and around 12,000 radio stations, most of which were operated by private companies.[1007] The figure is certainly higher when local TV stations are also included. At the time of writing of this thesis, the number of national TV stations remains the same and Indonesia has more than 140 local TV stations.[1008] Not only is the number growing but there is also freedom in delivering news/information. While this can be seen as advancement since people can speak their mind freely, press freedom also has some drawbacks. Freedom of speech with inadequate information/knowledge can be disastrous due to inaccurate information.

Having observed inaccuracy in news coverage regarding sovereignty and sovereignty issues, it can be inferred that media, in general, lack knowledge/information regarding legal and technical aspects of law of the sea and specifically maritime boundary issues. It is not uncommon to see, for example, the inappropriate use of the terms "*kedaulatan*" (sovereignty) and "*hak berdaulat*" (sovereign rights). These two terms are often used interchangeably or, even worst, sovereignty is used to refer to both. When a Malaysian vessel entered maritime area around the Ambalat Block, for example, Indonesian newspaper or electronic media often state that the Malaysian vessel crossed maritime boundary and entered Indonesian sovereignty. As clearly noted, no maritime boundary has been delimited between Indonesia and Malaysia so the first statement is incorrect. Further, since all or most of the Ambalat and East Ambalat blocks are located beyond 12 nautical miles from Indonesia's baselines, waters superjacent to the blocks most likely fall within Indonesia's sovereign rights, instead of sovereignty.

It is worth noting that the aforementioned inaccuracy is not uncommon and may not be necessarily due to mistake by the media in quoting their sources. It is also possible that the sources unwittingly express their views with inappropriate phrases/terms. Statement by the Indonesian Foreign Ministry spokesman, for example, about Ambalat is flawed when he stated that "Ambalat was an area subject to Indonesian sovereignty".[1009] In fact, as explained earlier, Ambalat has nothing to do with sovereignty but sovereign rights. Similarly, President Yudhoyono's statement about Ambalat is either not entirely flawless by saying that Ambalat "is a matter of sovereignty".[1010] Once again, the

[1007] See above note 1006
[1008] Local Television Stations in Indonesia, available at <http://www.asiawaves.net/indonesia-local-tv.htm>
[1009] See above note 987
[1010] See above note 992.

mistake can be due to carelessness of media in quoting their sources or the use of inappropriate term/phrase by the sources. Alternatively, it can also be due to lost in translation from Bahasa Indonesia into English or vice versa.

It is not uncommon to observe that media would use inappropriate source for their news coverage. Indonesian televisions stations, for example, often interview people without adequate knowledge in maritime boundaries such as politicians and NGO's activists irrelevant to international law of the sea and maritime boundary issues. For the Ambalat case, NGOs dealing with Indonesian migrant workers were often interviewed so the case was often associated with inappropriate treatment of Indonesian migrant workers in Malaysia. Apart from the fact whether or not the mistreatment is accurate, associating the migrant worker issue and Ambalat is certainly inappropriate since the two issues are not interrelated. A Malaysian NGO, for example, asserted that Indonesia should not have associated the issue migrant workers with Ambalat.[1011] The statement was in order to ensure that supply of workers from Indonesia was not disturbed by the Ambalat Block case. It was understandable to an extent since Malaysia is reasonably dependent to migrant workers from Indonesia, especially those working for households.

On the other hand, the Malaysian media seemed to respond to the issue of Ambalat in a different manner. It can be identified that Malaysian media was reasonably calmer in responding to the Ambalat issue. A discussion forum held by the Indonesian Students Association of the University of Wollongong involving Malaysian students confirmed that Malaysian media did not seem to pay as much attention to the case as the Indonesian media did.[1012] Bernama, Malaysian official news agency, quoting an Indonesian military officer, even stated that "Indonesian media blows up Ambalat issue".[1013] However, this statement was denied by various parties in Indonesia including military officers and experts.[1014] An expert, Priyambodo RH of Dr Soetomo Press

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[1011] Tempo, 2005. Malaysian NGOs reprimand those associating Indonesian Migrant Worker Issues with Ambalat [*LSM Malaysia Kecam Pengaitan Isu TKI dengan Ambalat*]. Available at <http://www.tempo.co.id/hg/nasional/2005/03/12/brk,20050312-06,id.html> on 14 June 2012

[1012] The discussion was held on 17 June 2009. The author was the president of the Indonesian Students Association of the University of Wollongong. See also, Republika, 2009. Maritime Delimitation is the Key to Ambalat Dispute Resolution [*Penentuan Garis Batas Kunci Penyelesaian Konflik Ambalat*]. Available at <http://www.republika.co.id/berita/breaking-news/internasional/09/06/22/57559-penentuan-garis-batas-kunci-penyelesaian-konflik-ambalat> on 18 July 2011.

[1013] Bernama, 2009, Indonesian Media Blows Up Ambalat Issue. Available at <http://www.bernama.com/finance/news.php?id=415434&vo=12> on 20 November 2013.

[1014] Antara, 2009. Malaysia trying to play down events in Ambalat. Available at <http://www.antaranews.com/en/news/1244246904/malaysia-trying-to-play-down-events-in-ambalat> on 17 July 2011

Institute (LPDS) states that the way Indonesian media deliver news is different from that of Malaysian media. He claimed that Indonesian media is free to "reproduce whatever information it had obtained from news sources" while it is not always the case for Malaysian media since they area "restricted by the existing Internal Security Act (ISA)".[1015]

Having observed different perspectives from and on the Indonesian and Malaysian media, it is worth noting that media plays important role in shaping public opinion. Even though they might not be able to directly influence decisions taken by officials from both States, news can dictate or influence how people (the laymen) see important issues such as maritime disputes. Different views/opinion can trigger different comments and reactions from the people that might also eventually attract responses from government officials. Aggressive reactions of comment from the people may also trigger inappropriate pressure on and responses from government officials that may be harmful to ongoing dispute settlement efforts. The media, once again, play an important role in relation to sovereignty rights such as Ambalat Block dispute between neighbouring States. Should the media play constructive roles, they may speed up the process to achieve solution. On the other hand they can significantly slow the process down should they chose to see the issue from a different, arguably more controversial and 'exciting' angle. Press freedom, in this case, can be a double-edged sword, something that has or can have both favourable and unfavourable consequences.

6.5 Maritime Delimitation Efforts in the Sulawesi Sea

6.5.1 Status of Land Boundary Demarcation

Maritime boundaries for a case of two adjacent States should ideally start from a terminal point of their land boundaries on the coast. In other words, a maritime boundary line starts at a point where land boundary line terminates on the coast. This is in keeping with the longstanding maxim that 'land dominates the sea'.[1016] This is also the case for Indonesia and Malaysia in the Sulawesi Sea. The maritime boundary line in the area should start from a terminal point of their land boundary, which is located on the north-eastern coast of Sebatik Island. Theoretically speaking, the maritime boundary

[1015] *Ibid*.
[1016] See, for example, North Sea Continental Shelf Cases, (Germany v. Netherlands, Germany v. Denmark), 1969, ICJ Report, 3, para. 19.

line should start from that terminal point and head seaward to divide maritime areas between Indonesia and Malaysia.

Being the successor of previous colonial powers that hold sway on Borneo Island, which were the Netherlands and the Great Britain, Indonesia and Malaysia need to delimit and demarcate their land boundaries in Borneo based on previously-settled agreements between the Netherlands and British. This is in line with the principle of *uti posidetis juris*, which is by Black's Law Dictionary defined as "The doctrine that old administrative boundaries will become international boundaries when a political subdivision achieves independence".[1017] Similarly, boundaries defined by two or more colonial powers will become international boundaries when respective colonised entity achieves independence.[1018] In the case of Indonesia and Malaysia in Borneo, international land boundaries are the ones settled by British and Dutch through a number of agreements.

Border demarcation efforts conducted by Indonesia and Malaysia in Borneo post-independence are essentially an effort of interpreting and implementing the agreements between Britain and the Netherlands made in 1891, 1915 and 1928.[1019] The demarcation process aims to "convert" borders from the old agreements, which are descriptive in nature, into accurate points and lines expressed in coordinates. The 1891 agreement, for example, states that the border line around Tanjung Datu (the western part of the border) follows a watershed, an area or ridge of land that separates waters flowing to different rivers or basins. Instead of providing accurate coordinates, border lines were described by referring to a relevant feature of the landscape.

Due to the changes in the landscape over time coupled with subjective interpretation, it is highly possible for Indonesia and Malaysia to disagree when faced with interpreting the description made by Britain and the Netherlands. It is not impossible that landscape dominated by forest in early 20th century is no longer the case 50 years later. This seems

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[1017] See, Paul R. Hensel, Michael E. Allison, and Ahmed Khanani, 2006. Territorial Integrity Treaties, Uti Possidetis, and Armed Conflict over Territory, *Shambaugh Conference "Building Synergies: Institutions and Cooperation in World Politics,"* University of Iowa, 13 October. Available at <http://www.paulhensel.org/Research/iowa06.pdf> on 12 Mei 2012

[1018] See also Jones, Stephen B. Boundary-Making. Pp. xv, 268. New York: Columbia University Press, 1945

[1019] See, Sutisna, S, Lokita, S. and Sumaryo. (2008). Boundary Making Theory and Boundary Management in Indonesia [Boundary Making Theory dan Pengelolaan Perbatasan di Indonesia]. Proceeding of Seminar and Workshop "Border Area Management." Yogyakarta: Department of International Relation, Universitas Pembangunan Nasional "Veteran".

to be a key reason Indonesia and Malaysia have yet to fully complete land boundary demarcation in Borneo. At the time of writing, there are nine outstanding boundary problems (OBP) in Borneo between Indonesia and Malaysia.[1020] OBPs are segments where agreement has yet to be achieved between the two States. While, there are officially nine OBPs, various parties in Indonesia have different views. One particular segment in Tanjung Datu (western part of the border), while subject to agreement by Indonesia and Malaysia through a Memorandum of Understanding in 1978, is viewed as an unresolved segment by various parties in Indonesia.[1021] Those parties, accordingly, have suggested the Indonesian delegation proposes the segment be recognised as another OBP by Malaysia. This is, however, an internal issue that Indonesia first needs to achieve agreement on internally before bringing it into the bilateral negotiation.

Similar to maritime boundaries, issues and incidents also take place around and along land boundaries between Indonesia and Malaysia in Borneo. Boundary pillars displacement, illegal border crossing, and border line uncertainties are some of the issues faced by Indonesia and Malaysia. One of the latest issues regarding border uncertainty in Tanjung Datu in 2011 was a good example how unresolved boundary issues can build tensions between Indonesia and Malaysia. As previously explained, Tanjung Datu is a segment where various parties in Indonesia have different views on.[1022] Another issue arising in the border area is related to border management. Around areas where land boundaries have been properly demarcated, the main issue for discussion is generally concerning economic development. It is not a secret that land border areas have yet to develop properly to support the lives of people residing in lands border.[1023]

Apart from several issues concerning land boundaries in Borneo that Indonesia and Malaysia need to deal with, the terminal point of land boundaries at the eastern side has been defined. The nine OBPs are four on the western side (Tanjung Datu, Batu Aum, point D 400, Buan River and Gunung Raya) and five others on the eastern side of the

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[1020] Sutisna, S. and Widodo, K., 2008, Problems of Land Boundary Demarcation and their Alternative Solutions [*Permasalahan Penegasan Batas Internasional Darat dan Alternative Solusinya*]. Proceeding of Seminar and Workshop "Border Area Management." Yogyakarta: Department of International Relation, Universitas Pembangunan Nasional "Veteran".

[1021] Unpublished document by Centre for Boundary Mapping of Bakosurtanal, on file with the author

[1022] See also Arsana, I M. A. (2011), Understanding border issues in Camar Bulan, Tanjung Datu, The Jakarta Post, 20 October, Jakarta

[1023] See also, Arsana, I M. A. (2012), It's time to bring an end to border dilemmas, The Jakarta Post, 7 February 2012, Jakarta

land boundary (Sinapad River, Semantipal River, Sebatik Island and two others between points C 500 and C 600 and between B 2700 and B 3100).[1024] Even though there is an OBP in Sebatik Island, the OBP has nothing to do with the terminal point of the land boundary on east coast of the island. This is important since the terminal point will eventually serve as the starting point for maritime delimitation in the Sulawesi Sea between Indonesia and Malaysia. The eastern part of land boundary between Indonesia and Malaysia in Borneo crosses Sebatik Island at the latitude of 4° 10' N. The boundary segment follows the parallel line and stops on the north-eastern coast of Sebatik Island.[1025] To sum up, land boundaries between Indonesia and Malaysia in Borneo have yet to be fully finalised. However, this will not prevent the two States from starting maritime boundary delimitation. In fact, land boundary demarcation is progressing and both States are also engaged in maritime boundary delimitation negotiation relating to the Sulawesi Sea (see section 6.5.3 below).

6.5.1 The Case of Sipadan and Ligitan Islands

Pulau Sipadan and Pulau Ligitan are two islands, sovereignty over which has been determined to rest with Malaysia. However, it is worth noting that sovereignty over Sipadan and Ligitan was the subject of a longstanding sovereignty dispute between Indonesia and Malaysia. The ICJ resolved the issue of sovereignty over the islands themselves through its 2002 decision in favour of Malaysia.[1026] Since this ruling, Sipadan and Ligitan have become symbolic for many Indonesian people when it comes to sovereignty issues.[1027] The case of maritime delimitation in the Sulawesi Sea, also known for the Ambalat Block dispute, is also often associated with and even conflated with the Sipadan and Ligitan case.

The dispute over Sipadan and Ligitan started in 1969 when Indonesia and Malaysia were negotiating maritime delimitation in the Sulawesi Sea.[1028] This diplomatic effort was part of maritime delimitation negotiations conducted by the two States covering two other locations: the Malacca Strait and South China Sea. During the delimitation

[1024] See above note 1021.
[1025] Treaty between Great Britain and the Netherlands 1891.
[1026] Sipadan and Ligitan Case, see above note 70.
[1027] It is common to see people to discuss lesson learned from the lost of Sipadan and Ligitan, or the need to intensify effective occupation and presents in outer islands in order to maintain Indonesia's sovereignty over those islands. Not only in news media, has this also become popular research topics in Indonesia.
[1028] Wirajuda, Hassan. 2006. "Lesson Learned from the Resolution of Sipadan and Ligitan Islands Dispute". in Sutisna, S. (ed) "Overview on Indonesia's Borders". Jakarta: Centre for Boundary Mapping, Bakosurtanal.

negotiation, Indonesia and Malaysia disagreed regarding sovereignty over Sipadan and Ligitan. In other words, the sovereignty over the two islands was disputed. Put simply, the two islands were *terra nullius*, owner of which was unconfirmed/undecided.[1029] Indonesia and Malaysia both claimed sovereignty over the two islands and reached deadlock on this issue. The two States then agreed to leave the existing *status quo* with respect to Sipadan and Ligitan in 1969, which means that their sovereignty was yet to be decided. This was also a requirement so that the two States can proceed to maritime boundary delimitation in the Sulawesi Sea. However, it was not achieved so that maritime boundary delimitation process could not be continued. Instead, Indonesia and Malaysia focused on solving the sovereignty issue over the two islands.

Indonesia and Malaysia attempted to solve the dispute concerning sovereignty over Sipadan and Ligitan in 1988 to 1997 through negotiations but failed to achieve resolution. The negotiation started with a high-level meeting between President Soeharto of Indonesia and Prime Minister Mahathir Mohammad in Yogyakarta in June 1998.[1030] Following this meeting a series of negotiation were carried out involving Joint Working Group Meetings, Senior Official Meetings, and Joint Commission Meetings. In 1994, Indonesia and Malaysia attempted to make a breakthrough by appointing respective individual representatives with the aim of facilitating intensive negotiations.[1031] Indonesia appointed the then Minister of State Secretary, Moerdiono and Malaysia assigned its deputy prime minister, Anwar Ibrahim, to represent Malaysia in the negotiation. The two representatives conducted four meetings in Jakarta on 17 July 1995 and 16 September 1995, and Kuala Lumpur on 22 September 1995 and 21 July 1996.[1032]

As deadlock prevailed even after these apparently intensive and tough negotiations, the two representatives reached the conclusion that Indonesia and Malaysia were unable to resolve the sovereignty dispute through negotiations and accordingly recommended adjudication through a third party. Subsequently, in 1997, Indonesia and Malaysia concluded the *Special Agreement for the Submission to the ICJ the Dispute between Indonesia and Malaysia concerning the Sovereignty over Pulau Sipadan and Ligitan*

[1029] Sipadan and Ligitan Case, see above note 70, para. 108.
[1030] Wirajuda, H. 2006. p. 128.
[1031] *Ibid*.
[1032] *Ibid*.

(hereinafter referred to as Special Agreement 1997).[1033] Through the special agreement, Indonesia and Malaysia requested the ICJ "to determine on the basis of the treaties, agreements and any other evidence furnished by the Parties, whether sovereignty over Pulau Ligitan and Pulau Sipadan belongs to the Republic of Indonesia or to Malaysia."[1034] In other words, both parties agreed to seek for assistant from the third party and the case was brought before the ICJ in 1997.

It is worth noting that the agreement only requests the ICJ to determine the sovereignty over Sipadan and Ligitan but not to establish maritime boundaries between Indonesia and Malaysia. Some might find this intriguing and opine that Indonesia and Malaysia should have requested the ICJ to settle maritime boundaries in addition to settling the sovereignty issue. There is no official statement from either Malaysia or Indonesia why they decided to request the ICJ only to settle the sovereignty issue. A discussion with Ambassador Arif Havas Oegroseno,[1035] revealed that both States at the time focused on the issue of sovereignty over Sipadan and Ligitan and apparently the two States did not want to mix it up with sovereign right issue (maritime boundaries) even though maritime boundary settlement was the original subject to negotiate between Indonesia and Malaysia that eventually led to a sovereignty dispute.[1036] In addition, both States were confident with their respective position and possibility to win the case so both focused on winning the sovereignty over Sipadan and Ligitan and thought that maritime boundaries, which were less crucial, could be dealt with at a later time.

The Sipadan and Ligitan case took five years to decide and ICJ delivered a judgment on 17 December 2002.[1037] The ICJ decided that sovereignty over the two islands rested with Malaysia.[1038] Of particular importance in this context was the principle of effective occupation and administration or *effectivités.* The ICJ relied on these factors in the absence of other more definitive sources of evidence regarding title over the territory in question such as mention of the islands in bilateral agreements either between Indonesia

[1033] Wirajuda H. 2006. p. 129. A copy of the agreement is available at <http://www.icj-cij.org/docket/files/102/7177.pdf>, on 20 July 2013.
[1034] Special Agreement 1997, Article 2.
[1035] Personal Communication with Ambassador Arief Havas Oegroseno on 24 July 2013. Ambassador Oegroseno is a former Indonesian chief of delegation of maritime boundary delimitation.
[1036] *Ibid.*
[1037] Sipadan and Ligitan Case, see above note 70.
[1038] *Ibid.*

and Malaysia or their respective pre-independence colonial administrations of the Netherlands and United Kingdom.[1039]

The ICJ found that the British authorities, being the predecessor of Malaysia, had undertaken acts of administration demonstrating effective occupation of the two islands.[1040] Among these activities were the implementation of regulation in relation to the collecting of turtle eggs and the establishment of a bird sanctuary.[1041] In the ICJ's opinion, this must be seen as "regulatory and administrative assertions of authority over territory".[1042] In addition, the ICJ also ruled that the construction and operation of lighthouse by the British must be considered sufficient to support Malaysia's claim that it has sovereignty over Sipadan and Ligitan.[1043] It is also worth noting that, based on the request of Indonesia and Malaysia, the ICJ primarily, analysed *effectivités* taking place prior to 1969, the year in which Indonesia and Malaysia asserted conflicting claims to the two islands.[1044] This was in keeping with the concept of the "critical date" in sovereignty disputed. Consequently, the development of, for example, tourism-related villas and resorts on Sipadan or Ligitan on the part of Malaysia after 1969 has no bearing on ICJ's decision concerning sovereignty over the two islands.

It is understood that Sipadan and Ligitan, since ICJ's decision in 2002, have been officially confirmed as being Malaysian territory.[1045] It is also worth noting that the two islands have significant potential to extend Malaysia's maritime claims in the Sulawesi Sea and influence the location of the as yet undelimited Indonesia-Malaysia maritime boundary in this area. In addition, the decision led to a need to revise Indonesia's archipelagic baselines in the region, given that in 2002 Indonesia had revised its archipelagic baselines system so as to include the then disputed islands (see subsection 6.3.1.1 above). A key issue for analysis in the case study of Indonesia and Malaysia's

[1039] Sipadan and Ligitan Case, see above note 70, para 126-127.
[1040] Sipadan and Ligitan Case, see above note 70, para 149.
[1041] Sipadan and Ligitan Case, see above note 70, para 132 and 145.
[1042] Sipadan and Ligitan Case, see above note 70, para 145.
[1043] Sipadan and Ligitan Case, see above note 70, para 147.
[1044] Sipadan and Ligitan Case, see above note 70, para 135.
[1045] Notwithstanding a late effort on the part of the Philippines to intervene in the case on the basis of its own longstanding sovereignty claim to the whole of the Malaysian Province of Sabah. See, Application for Permission to Intervene by the Government of the Philippines, Case concerning Sovereignty over Pulau Ligitan and Pulau Sipadan, available at <http://www.icj-cij.org/docket/files/102/7179.pdf>, on 17 July 2013. However, ICJ found that the application of the Philippines for permission to intervene cannot be granted. See also, Reports of Judgments, Advisory Opinions and Orders, Case concerning Sovereignty over Pulau Ligitan and Pulau Sipadan, Application by the Philippines for Permission to Intervene, Judgment of 23 October 2001. Available at <http://www.icj-cij.org/docket/files/102/7698.pdf>, on 17 July 2013.

future maritime delimitation in the Sulawesi Sea is therefore the potential role of these islands in terms of generating extensive zones of maritime jurisdiction and thus potentially influencing the location of the boundary line (see subsection 6.6.4 below).

6.5.2 Legal Basis of Maritime Delimitation in the Sulawesi Sea

Indonesia and Malaysia are both parties to LOSC. Indonesia ratified the convention through Act number 17 of 1985 and submitted information to the UN to be recorded in 1986, while Malaysia did it ten years later in 1996.[1046] Indonesia and Malaysia are likely to use relevant provisions in LOSC in conducting maritime boundary delimitation in the Sulawesi Sea. Relevant jurisprudence derived from decision made by the International Court of Justice and International Tribunal for the Law of the Sea will also be relevant for the delimitation.[1047] In addition to that, in a real negotiation between the two States, unilateral claims made by each State will certainly be taken into consideration.

LOSC sets out that delimitation of maritime boundaries are governed by different provisions for different maritime zones. The provision governing territorial sea delimitation is Article 15, while EEZ and continental shelf delimitation are governed by Article 74 and 83 respectively (see Chapter 2, subsection 2.5.1). Considering that Indonesia and Malaysia are adjacent to each other in the Sulawesi Sea, delimitation is required for all maritime zones the two States are entitled to. Maritime boundaries required by Indonesia and Malaysia in the Sulawesi Sea are lateral boundaries starting from the terminal point of land boundaries heading seaward.

As mentioned in Chapter 2 (subsection 2.5.1), territorial sea delimitation requires the implementation of equidistance or median line, should they fail to agree on another method. This is inferred from the provision stating that neither of two States that adjacent or opposite to each is entitled "to extend its territorial sea beyond the median line every point of which is equidistant from the nearest points on the baselines".[1048] Meanwhile, EEZ delimitation is governed by Article 74 of the LOSC, which consists of four paragraphs. EEZ delimitation is aimed at achieving "an equitable solution" based on "international law, as referred to in Article 38 of the Statute of the International

[1046] See above note 956.
[1047] Decisions by ICJ are only binding on parties to a particular case but nonetheless influential to other cases decided later on.
[1048] LOSC Article 15.

Court of Justice."[1049] If States in question fail to make an agreement "within a reasonable period of time," they shall conduct a settlement of dispute as provided for in Part XV.[1050] Article 74 also indicates that in the absence of agreement States in question shall attempt to establish a "provisional arrangements of a practical nature", which "shall be without prejudice to the final delimitation."[1051] It is worth noting that if there is an existing agreement between States in question, the new EEZ agreement "shall be determined in accordance with the provisions of that agreement."[1052]

One important thing in Article 74 of LOSC is that it does not specify any method to achieve the so-called "equitable solution". It can be inferred from this provision that the method can be anything as long as it is accepted by States in question and achieves an equitable result. However, there are methods that States in question can employ to facilitate the achievement of the solution such as equidistance line or median line. It is worth noting that the principle of equidistance produces an equal division of maritime space so long as baselines on each side are balanced. Even though an equal maritime space does not necessarily mean equitable solution for States in question, it certainly can serve as an equitable solution.[1053] In addition, equidistance or median line has relatively high degree of certainty and objectivity since it is generated based on the application of strict geometric principles, provided that the parties in question agree on baselines involved in the delimitation.[1054]

Another provision to consider from Article 74 is that Indonesia and Malaysia shall attempt to establish a provisional agreement in Sulawesi Sea if they cannot achieve a solution within a reasonable period of time. However, it is not clear how Indonesia and Malaysia should define the phrase "reasonable period of time". This is certainly subjective and it is up to the States in question to define for themselves. It seems that both States have not seen that they have passed a reasonable period of time without agreed maritime boundaries in the Sulawesi Sea since they have not, at the time of writing, established any provisional agreement specifically dealing with the Sulawesi

[1049] LOSC, Article 74 (1).
[1050] LOSC, Article 74 (2).
[1051] LOSC, Article 74 (3).
[1052] LOSC, Article 74 (4).
[1053]Prescott, JRV. and Schofield, C. 2005, see above note 252, p. 236
[1054] Beazly, P. B. 1994. Technical Aspects of Maritime Boundary Delimitation, Maritime Briefing, Vol. 1/2, International Boundary Research Unit: Durham.

Sea. However, the two States did agree on a memorandum of understanding dealing with how to treat fishermen operating in disputed area (see below).

With regard to the provision that EEZ should not be in violation to existing agreement, it does not seem that this is applicable to Indonesia and Malaysia in the Sulawesi Sea. Even though Indonesia and Malaysia have made maritime claims in the Sulawesi Sea and have been conducting activities in the area, there is no maritime boundary agreement between the two States, yet. Accordingly, there is not existing agreement that Indonesia and Malaysia need to consider in relation to future maritime delimitation in the Sulawesi Sea.

In addition to territorial sea and EEZ, Indonesia and Malaysia need to delimit continental shelf in the Sulawesi Sea as governed by article 83 of LOSC. Article 83, in this case, is similar to Article 74. Article 83 of LOSC, which deals with continental shelf delimitation, follows exactly, *mutatis mutandis*, the wording of article 74 dealing with EEZ. In other word, the rules applicable to EEZ delimitation as described previously are also applicable to continental shelf delimitation.

6.5.3 Series of Bilateral Negotiations

With regard to maritime boundaries generally, Indonesia and Malaysia have been dealing with the issue since the 1960s when their first agreement of continental shelf boundary in the Malacca Strait and South China Sea was signed in 1969.[1055] Since then, the two States have been active in negotiating their pending maritime boundaries (see Chapter 4, section 4.4). The maritime boundary delimitation process between the two States is conducted in series of fora called Technical Meeting on Maritime Delimitation. Maritime delimitation in the Sulawesi Strait, where the Ambalat Block is situated, has been discussed in more than 25 technical meetings since 2005.[1056] The incident in the Sulawesi Sea in relation to the Ambalat Block seems to have been an important reason for the intensification of meeting. However, the two neighbours have yet to reach a

[1055] Agreement between the Government of Malaysia and the Government of Indonesia on the delimitation of the continental shelves between the two countries, 27 October 1969. Available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/TREATIES/MYS-IDN1969CS.PDF>.

[1056] General information on maritime boundary negotiation between Indonesia and Malaysia was mainly obtained from press releases of the Indonesian Ministry of Foreign Affairs. Available at <http://www.kemlu.go.id/Pages/PressRelease.aspx>. Additional information has been obtained from Centre for Boundary Mapping of Bakosurtanal. For confidentiality reason, only limited information is available for the purpose of this research.

mutually acceptable agreement. Indeed, it is evident from past experience elsewhere that maritime boundary negotiation can take decades to reach a conclusion. The continental shelf boundary between Indonesia and Vietnam, for example, was negotiated for around 25-30 years before finally being signed in 2003 (see Chapter 4, section 4.6).[1057]

The negotiations between Indonesia and Malaysia started with a principle that nothing is agreed until everything is agreed.[1058] Having said that, Indonesia and Malaysia did not prioritise a particular segment of maritime boundaries to finalise but instead viewed every segment and location as equally important. Accordingly, the meetings were conducted for the general purpose of delimiting maritime boundaries between Indonesia and Malaysia in all pending locations. This means there is no specific series of meeting dedicated only for a certain boundary segment such as the Malacca Strait, the Singapore Strait, Sulawesi Sea and the South China Sea.

While the principle of "nothing is agreed until everything is agreed" is common in bilateral negotiation, it may generate complications. Parties outside the negotiating process might see the negotiation without significant progress since there will be no agreement until everything is agreed. Meanwhile it is understandable that maritime delimitation is by no means easy. Any partial progress achieved during the negotiation will not be incorporated into an agreement or treaty since it needs to wait the finalisation of the whole process. Considering that maritime delimitation can take years or decade to complete,[1059] the entire negotiating progress may look stagnant without any agreement. In the case of Indonesia, where people are relatively prone to become emotionally involved in issues such as maritime boundary disputes/incidents, this situation might not be an advantage. It can be suggested that it is not a good idea to let people see incidents in maritime border areas published by media while at the same time people are not provided with information regarding progress the government has taken concerning maritime delimitation only because nothing is agreed until everything is agreed.

[1057] MFA. 2010a. "Indonesia sent a diplomatic note conveying protest to Malaysia", accessed from <http://www.deplu.go.id/Lists/News/ DispForm.asp?ID= 3878&l=en> on 20 February 2011. For Dr. Marty Natalegawa's more detailed explanation, listen to the recorded audio from <http://www.deplu.go.id/Pages/Audio.aspx?IDP=39&l=id>. Accessed on 20 February 2011.

[1058] Personal Communication with Dr. Sobar Sutisna of Bakosurtanal. Additional information is obtained from unpublished Report of the Centre for Boundary Mapping regarding the development of maritime boundary negotiation between Indonesia and Malaysia. File with the author.

[1059] Indonesia-Vietnam seabed delimitation took nearly 25-30 years to finish. See above note 1057.

The approach in maritime delimitation negotiations seemed to change, following the incident at Tanjung Berakit in August 2010.[1060] The principle of nothing is agreed until everything is agreed did not seem to be relevant anymore since it is proven to delay the whole process. More importantly, it generates impression that the entire process is slow or even without progress. This is supported by the fact that there is no agreement signed by Indonesia and Malaysia since 1970 when the last agreement was established, while incidents involving fishermen and/or patrolling officers in border areas keep occurring from time to time.[1061] Accordingly, both parties view the approach as less effective and require changes to accelerate the delimitation process.[1062] As the consequence of this new approach, there is possibility that the entire area of delimitation will be divided into different segments/locations representing different level of priority.

The Sulawesi Sea is the only location where not a single maritime boundary has been agreed between Indonesia and Malaysia. Meanwhile, there appears to be much at stake, especially with respect to natural resources that require immediate, yet effective utilisation/management. In addition, people, especially in Indonesia, pay more attention to Ambalat Block issue, which is located in the Sulawesi Sea. Accordingly, Sulawesi Sea is in a spotlight in people's view so that expectations for its solution are relatively high. It is therefore fair to say that negotiation on maritime delimitation in the Sulawesi Sea is one of the top priorities between Indonesia and Malaysia.

Access to information regarding development of bilateral negotiation between Indonesia and Malaysia is available with certain limitations. It is understood that not all information is meant to be open for public since the negotiation is ongoing. For the purpose of this research only limited information is available from Bakosurtanal and Ministry of Foreign Affairs of the Republic of Indonesia.[1063]

6.5.4 Provisional Agreement

Indonesia and Malaysia have managed to agree upon a provisional territorial sea boundary in the Sulawesi Sea. The provisional agreement was achieved during the16th meeting in Kuantan on 13-14 October 2010. This is also confirmed by official news

[1060] See: Arsana, IMA. (2011). "Mending Imaginary Wall between Indonesia and Malaysia: The Case of Maritime Delimitation in the Waters off Tanjung Berakit." Wacana - Jurnal Ilmu Pengetahuan Budaya.
[1061] Ambalat in 2005, 2009; Tanjung Berakit in 2010 and Malacca Strait incident in 2011.
[1062] Bakosurtanal unpublished report, See above note 1058
[1063] Information from the Ministry of Foreign affairs is obtained from its press releases, available from http://www.kemlu.go.id/Pages/PressRelease.aspx.

released on 10 October 2011 by the Ministry of Foreign Affairs.[1064] Even though the segment has been provisionally agreed, there has been no formal agreement signed by the two States regarding maritime delimitation in Sulawesi Sea. It seems that Indonesia and Malaysia are expecting the agreement of additional sectors of the boundary before signing an official treaty. In other words, the provisional agreement between Indonesia and Malaysia are yet to be binding since there is no MoU or treaty to formalise the agreement. However, the provisional treaty for territorial sea delimitation does represent a positive step, however,.

Furthermore, both have signed a Memorandum of Understanding (MoU) in respect of the common guidelines concerning treatment of fishermen by maritime law enforcement agencies of the two countries.[1065] Even though the MoU does not deal with seabed and resources therein, it may be seen as good news for fishermen operating around the borders, especially where maritime boundaries have yet to be settled. The MoU was signed on 27 January 2012 governing agreed activities in dealing with fishing issues between Indonesia and Malaysia for the wellbeing of fishermen. The MoU consists of 11 articles dealing with objectives,[1066] principles,[1067] scope of activities,[1068] agencies involved,[1069] implementation areas,[1070] participation of third parties,[1071] confidentiality,[1072] suspension of the MoU,[1073] revision/modification/amendment,[1074] dispute settlement,[1075] and entry into force/duration/termination.[1076] Article 5, for example, states, that the rules shall be applied in "all unresolved maritime boundary areas" between Indonesia and Malaysia. These include the Malacca Strait, the South China Sea, the Singapore Strait and the Sulawesi Sea.

[1064] MFA, 2011, FM: Important Progress on Maritime Boundary Delimitation between RI-Malaysia. Available at <http://www.deplu.go.id/Lists/News/DispForm.aspx?ID=5202> on 20 April 2012

[1065] Memorandum of Understanding between The Government of the Republic of Indonesia and the Government of Malaysia in Respect of the Common Guidelines concerning Treatment of Fishermen by Maritime Law Enforcement Agencies of Malaysia and the Republic of Indonesia (hereinafter referred to as Indonesia-Malaysia 2012 MoU). Copy on the MoU is obtained from the Indonesian Maritime Security Coordinating Board (Bakorkamla) for limited access only.

[1066] Indonesia-Malaysia 2012 MoU, Article 1.

[1067] Indonesia-Malaysia 2012 MoU, Article 2.

[1068] Indonesia-Malaysia 2012 MoU, Article 3.

[1069] Indonesia-Malaysia 2012 MoU, Article 4.

[1070] Indonesia-Malaysia 2012 MoU, Article 5.

[1071] Indonesia-Malaysia 2012 MoU, Article 6.

[1072] Indonesia-Malaysia 2012 MoU, Article 7.

[1073] Indonesia-Malaysia 2012 MoU, Article 8.

[1074] Indonesia-Malaysia 2012 MoU, Article 9.

[1075] Indonesia-Malaysia 2012 MoU, Article 10.

[1076] Indonesia-Malaysia 2012 MoU, Article 11.

In principle, the common guidelines are established to maintain "good relations, close cooperation and mutual understanding" between Indonesia and Malaysia and to avoid the use of force by enforcement agencies. It is also without prejudice to existing and pending bilateral agreements on maritime boundaries. In other words, it is not to dictate and influence future maritime-boundary negotiations between Indonesia and Malaysia. Another important provision is to treat fishermen from both countries impartially.

The most interesting part of the common guidelines in relation to fishermen is Article 3 concerning the scope of activities. It states that both parties agree to conduct preventive measures and "inspection and request to leave the area" for all fishing boats in a case of encroachment. In other words, if fishermen from Malaysia enter an overlapping area, they should not be captured by Indonesian authorities but, instead, be told to return to Malaysia. This is also equally applicable to Indonesian fishermen encountered by Malaysian authorities. This implies that Indonesia and Malaysia have to first recognise each party's unilateral claim to agree upon an overlapping area. This might generate another issue, as a country does not usually recognize its neighbour's unilateral claim in order to strengthen its own claim. Recognizing another country's claim may be viewed as an action to legitimatise the claim, which in turn weakens its own position in future delimitation negotiations. However, both must have been aware that the MoU is without prejudice as a provisional agreement and such "recognition" should not complicate the finalization of maritime delimitation in the future.[1077]

6.6 Proposing Maritime Delimitation in the Sulawesi Sea

This section deals with proposal on maritime delimitation between Indonesia and Malaysia in the Sulawesi Sea. At the time of writing, the negotiation is undergoing reciprocally between the two States.[1078] Due to confidentiality issue no much information is available for public consumption regarding progress on the drawing of maritime boundaries between Indonesia and Malaysia. The proposal of delimitation in this section is therefore solely based on academic perspective and does not necessarily represent the view of Indonesia or Malaysia unless otherwise specifically mentioned.

[1077] See, Arsana, I M. A. (2012), Indonesia-Malaysia deal is good news for fishermen, The Jakarta Post, 30 April 2012, Jakarta.
[1078] See above note 1056.

6.6.1 Legal Issues

There do not seem to be any significant difficulties for Indonesia and Malaysia regarding the relevant legal basis for maritime delimitation between them. As previously highlighted, Indonesia and Malaysia have ratified LOSC 1982[1079] so it is safe to say that both States will use relevant principles of international law, particularly provisions in LOSC 1982 in conducting maritime boundary delimitation in the Sulawesi Sea. Since maritime zones of jurisdiction subject to delimitation are territorial sea, EEZ and continental shelf, relevant provision in LOSC will most likely article 15 (territorial sea), article 74 (EEZ) and article 83 (continental shelf). In addition, there are some other articles relevant for Indonesia and Malaysia such as article 5 regarding normal baselines and article 47 for archipelagic baselines. The use of low-tide elevation around the area may also be taken into consideration so article 13 is likely to be relevant.

In addition to LOSC, relevant jurisprudence, especially those established through cases decided by ICJ and ITLOS are worth considering in maritime delimitation between Indonesia and Malaysia in the Sulawesi Sea. The latest cases decided by ICJ concerning maritime delimitation are in the Black Sea between Ukraine and Romania in 2009[1080] and Columbia-Nicaragua in 2012[1081] seem to be relevant to consider since the *Black Sea Case* in particular significantly contributed a new approach, the three-stage approach,[1082] in maritime boundary delimitation. This was replicated in the Columbia-Nicaragua Case. Similarly, the latest and only case decided by ITLOS concerning maritime boundary delimitation in the Bay of Bengal between Bangladesh and Myanmar[1083] is also worth considering. The decision, to an extent, strengthens or confirms the three-stage approach set out by ICJ in the Black Sea case.

6.6.2 Technical issues

Technical issues are of essential importance in maritime delimitation in the Sulawesi Sea are the use of geospatial data and information, basepoints and baselines issues in delimitation, definition of common points and delimitation methodology. As for

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[1079] Chronological lists of ratifications of LOSC, see above note 221.
[1080] Black Sea Case, see above note 316.
[1081] Nicaragua v. Columbia, see above note 314.
[1082] See, Schofield, CH. 2009, The Trouble with Islands, A Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of Master of Laws in the Faculty of Graduate Studies (Law), The University of British Columbia. Available at <https://circle.ubc.ca/bitstream/handle/2429/12624/ubc_2009_fall_schofield_clive.pdf> on 20 June 2011
[1083] Bay of Bengal Case, see above note 327.

geospatial data and information, Indonesia and Malaysia are considered to be likely to agree to the use of the relevant British Admiralty Chart (BAC). This conclusion was reached on the basis that such charts have been used for maritime delimitation between Indonesia and other States. The maritime boundary agreement between Indonesia and Thailand, for example, uses BAC 793 and BAC 830.[1084] The most recent boundary delimitation between Indonesia and Singapore also use BACs, which are BAC 4039 (2002) and BAC 3833 (1998).[1085] Concerning the appropriate reference ellipsoid or horizontal datum, World Geodetic System (WGS) 1984 seems to be the most acceptable option due to its universal compatibility with positioning and navigational technology such as Global Positioning Systems (GPS).[1086] This is important since one of the main usages of the maritime area in question is for navigational purposes. Accordingly, it is important to establish boundary line compatible with equipment commonly used in navigation. This will facilitate law enforcement since it will be relatively easy to identify a border crossing, for example, since the line is established based on the same reference as navigational equipments maritime users generally use.[1087] In addition, WGS 1984 is a common datum used worldwide treating the world as one system.[1088] Consequently, every point on earth will have unique coordinates so there is no need for complicated transformation and reference shifting which means less complication in boundary management.

As for basepoints and baselines, it is likely that Indonesia will stick to the fact that it is entitled to designate archipelagic baselines. As previously noted, Malaysia has indicated that it may apply straight baselines but their exact location is, as yet, unknown (see subsection 6.3.2.1). In the absence of the precise designation of Malaysia's likely but unpublished straight baselines, normal baselines are applied to Malaysia's coast in the present analysis. The potential definition of straight baselines along the Malaysian coast fronting the Sulawesi Sea does, however, need to be borne in mind. Indonesia for its part will undoubtedly propose the use of its latest basepoints and baselines submitted to the UN in 2009.[1089] The key issues that is likely facing the two States in maritime

[1084] Abidin, H. Z. 2005, see above note 72, pp. 291-304
[1085] Unpublished document of the Center for Boundary Mapping of Bakosurtanal. File with the author
[1086] Abidin, H. Z. et al, see above note 72, p. 295.
[1087] Abidin, H. Z. et al, 2005, see above note 72p. 301-302.
[1088] Abidin, H. Z. et al, see above note 72, p. 295.
[1089] For maritime zone notification and a complete list of the coordinates, see: <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/IDN.htm>, accessed on 24 March 2009.

delimitation in relation to basepoints and baselines is whether or not Indonesia's archipelagic baselines will be fully considered and whether Malaysia will advance straight baselines to counter Indonesia's archipelagic baselines in the course of negotiation. Indonesia on one side will see it as a legitimate position to give full weight to its archipelagic baselines which means considering every point along straight baselines in delimitation. It is intriguing, however, to see whether or not Malaysia will accept this proposal. Even though it is a valid position for Indonesia to use its archipelagic baselines in maritime delimitation, it is not impossible that Malaysia comes up with different proposal. It seems that the negotiation regarding the use of Indonesia's archipelagic baselines, as well as the potential use of straight baselines on the part of Malaysia will in all probability take time and be a potential source of contention.

Regarding the applicable method of delimitation, equidistance line or median line can apparently be the starting point. For territorial sea delimitation, this option is supported by Article 15 of LOSC, while for EEZ and continental shelf equidistance line may serve as an "equitable solution". Both States may not necessarily agree to the use of a strict equidistance line for their final agreement but it certainly can be part of the exercise. In other words, an equidistance line can be use as a starting position to achieve final boundary line. For the purpose of this study, a three-stage approach is used to analysis options of maritime delimitation in the Sulawesi Sea between Indonesia and Malaysia (see Chapter 2, section 2.6.5).

6.6.3 Unilateral and Overlapping Claims

Indonesia's unilateral claims in the Sulawesi Sea are represented by concession blocks it designated since 1960s and its unilateral forward position depicted in its official maps. Figure 6.6 illustrates the main concession blocks that are relevant to maritime delimitation between Indonesia and Malaysia in the Sulawesi Sea and Indonesia's unilateral claim of maritime boundaries in the area. Malaysia's unilateral claims as depicted on the 1979 Map is overlayed on top of Indonesia's unilateral claims so that overlapping claims are generated. It is clear from Figure 6.6 that there is significant overlapping claim area generated from the overlay. Malaysia's unilateral claim line depicted on the 1979 map also covers maritime area previously claimed by Indonesia in the Sulawesi Sea. Malaysia's claim covers a relatively small portion of the Bunyu Block, and part of North East Kalimantan Block, that were previously claimed by

Indonesia. The area of the overlapping claim is approximately 6,000 square kilometres, which mainly covers Sebatik, Bunyu, Sebawang, Nunukan, East Ambalat, Ambalat and North East Kalimantan blocks of Indonesia's and ND6 blocks of Malaysia's as illustrated in Figure 6.7.

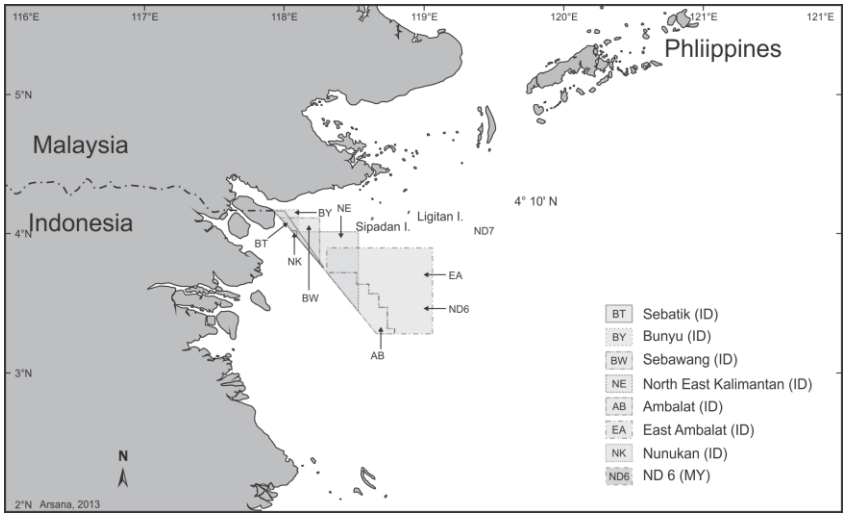

Figure 6.7 Potential Overlapping Claims between Indonesia and Malaysia Based on Their Respective Concession Blocks.

The area of overlapping maritime claims between Indonesia and Malaysia can also be identified by comparing their respective forward positions. In this case, the overlapping claim can be defined by overlaying Malaysia's 1979 map and Indonesia' *Peta NKRI*[1090] and ignoring concession blocks that have been defined by both Indonesia and Malaysia. Figure 6.8 illustrates the forward positions of Indonesia and Malaysia in the Sulawesi Sea and overlapping areas generated by their respective forward positions. The area of overlapping maritime claims identified in this way measures approximately 14,000 square kilometres. This is significantly larger than overlapping areas calculated by overlaying concession blocks defined by Indonesia and Malaysia. This illustrates that such coverage designated for oil and gas exploration do not provide the full picture in terms of indicating the extent of coastal States maritime claims.

[1090] *Peta NKRI*, see above note 640

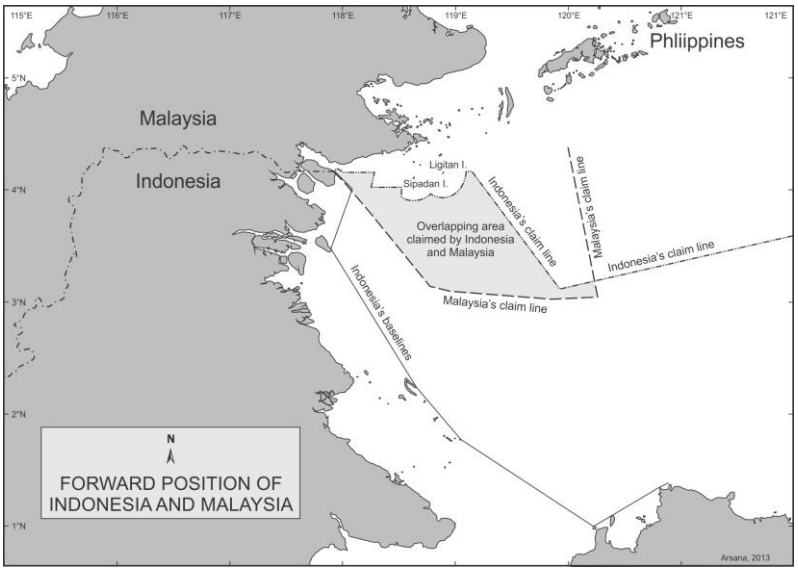

Figure 6.8 Potential Overlapping Claims between Indonesia and Malaysia Based on Their Respective Forward Position of Maritime Boundaries.[1091]

The illustrations in Figure 6.7 and Figure 6.8 above confirm that there are overlapping claims or entitlements between Indonesia and Malaysia in the Sulawesi Sea that require maritime delimitation. Apart from the aforementioned unilateral claims that generate overlapping areas, Indonesia and Malaysia are two adjacent States sharing land territory on the Island of Borneo. Critically, that land territory has coast. Consequently, the two States need to share maritime area their land is entitled to, which in turn will require them to delimit their maritime boundaries in the Sulawesi Sea.

6.6.4 Baselines and the Potential Role of Sipadan and Ligitan Islands

From the Indonesian perspective, the ICJ's decision determining that sovereignty over Sipadan and Ligitan rested with Malaysia (see subsection 6.5.1) caused a change in its archipelagic baselines configuration around the Sulawesi Sea. A new configuration of archipelagic baselines needed to be designated to exclude previously used basepoints on Sipadan and Ligitan. This was accommodated through Government Regulation number 37 of 2008.[1092] The latest version of Indonesian archipelagic baselines deposited to the United Nations,[1093] no longer uses basepoints in the two islands so that the

[1091] Illustration by the author.
[1092] Lembaran Negara Republik Indonesia Nomor 77 (2008) Peraturan Pemerintah No. 37/2008 tentang Perubahan atas Peraturan Pemerintah Nomor 38 Tahun 2002 tentang Daftar Koordinat Geografis Titik-Titik Garis Pangkal Kepulauan Indonesia. Diakses dari http://www.setneg.go.id/ tanggal 15 Agustus 2009.
[1093] For maritime zone notification and a complete list of the coordinates, see: <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/IDN.htm>, accessed on 24 March 2009.

configuration has changed in such a way which may also potentially change the extent of the maritime zones of jurisdiction claimed from the baselines.[1094] Meanwhile, there is possibility that Malaysia may use the two islands as its basepoints for its own maritime claims. Should Malaysia decide to do so, it may extend its maritime claim/entitlement more southward compared to what it previously could claim when Sipadan and Ligitan were not taken into consideration. Even though the effect of Sipadan and Ligitan in generating maritime claims may be debatable (see below), it would be unsurprising if Malaysia proposes that the two islands should be taken into account in maritime delimitation with Indonesia.

Should Sipadan and Ligitan be accorded full weight considered in maritime delimitation between Indonesia and Malaysia, the two islands will eventually affect the location of the maritime boundary between the two States on the basis of equidistance methodology. One of the main issues to discuss between Indonesia and Malaysia, therefore, is the effect Sipadan and Ligitan can have in maritime delimitation. Indonesia will undoubtedly argue that Sipadan and Ligitan should not be given full effect considering their relatively small size. According to this view, giving full effect to Sipadan and Ligitan in drawing boundary line in the Sulawesi Sea will eventually give rise to an inequitable solution since the two islands may significantly 'push' the line further southward, closer to Indonesia. This argument is in line with other cases involving small islands, such as Qita'at Jaradah between Qatar and Bahrain where the small island was ignored in constructing the territorial sea boundary between the two States.[1095] Similarly, in the delimitation case between Romania and Ukraine, ICJ ruled that the presence of Serpents' Island should be ignored in the construction/adjustment of provisional line by stating that the island "does not call for an adjustment of the provisional equidistance line".[1096] It is worth noting that giving nil effect to Sipadan and Ligitan means giving these features only 12 nautical miles of territorial sea around them, which would result in two 'pouches' of territorial sea measured from the two islands (see Figure 6.4 and Figure 6.8).

[1094] See above note 944
[1095] Case Concerning Maritime Delimitation and Territorial Questions between Qatar and Bahrain (Qatar v. Bahrain) (Merits) [2001] ICJ Rep 40, (hereinafter, the Qatar/Bahrain Case). Available at <http://www.icj-cij.org/docket/files/87/7027.pdf>
[1096] Black Sea Case, see above note 316, para.187.

On the other hand, Malaysia will most likely argue that Sipadan and Ligitan should be given larger than nil effect in maritime delimitation since they satisfy all criteria to be recognised as an island.[1097] Malaysia is, further, likely to argue that as islands, pursuant to LOSC article 121, Sipadan and Ligitan are entitled to all of the maritime zone of jurisdiction governed under LOSC including territorial sea, contiguous zone, EEZ and continental shelf.[1098] Considering the size, activities and current development in the two islands, it is likely that Malaysia will argue that the two islands are not merely "rocks which cannot sustain human habitation or economic life of their own".[1099] However, in maritime delimitation, the case might be different. While in unilateral maritime claim an island is entitled to territorial sea, contiguous zone, EEZ and continental shelf, it does not necessarily mean that the island must be given full effect in bilateral maritime delimitation. Indeed, there exist many example of features that clearly not "rocks" within the meaning of Article 121(3) nonetheless being awarded only a much reduced and often negligible effect in maritime delimitation especially EEZ/continental shelf delimitation. Indonesia, for its part can argue that Malaysia's small islands must not cause disproportionate effect in maritime delimitation in the Sulawesi Sea.[1100]

6.6.5 Oil and Gas Concessions

One of the important factors Indonesia and Malaysia seem to consider in conducting maritime delimitation in the Sulawesi Sea is the existence of oil and gas concession in the area. As illustrated in Figure 6.6, there are at least eight concession blocks defined by Indonesia relevant to maritime boundary delimitation in the Sulawesi Sea. Meanwhile, Malaysia defined two concession blocks: ND6 and ND7 within a 'pocket' of continental shelf depicted on the 1979 map. It is fair to say that both States might hesitate to proceed with maritime delimitation without taking into account existing oil and gas concession blocks as they to some extents represent unilateral claims from Indonesia and Malaysia. Both Indonesia and Malaysia may consider the existing oil and gas concession they have previously defined as a starting point or forward position of maritime boundaries in the Sulawesi Sea. In other words, the existence of those concession blocks to an extent strengthen the unilateral claims of Indonesia and

[1097] LOSC Article 121 (1).
[1098] LOSC, Article 121 (2).
[1099] LOSC, Article 121 (3).
[1100] See also: Lowe, V., Carleton, C., and Ward, C. (2002) In The Matter of East Timor's Maritime Boundaries Opinion. Accessed from http://www.petrotimor.com/lglop.html on 10 July 2010.

Malaysia. Therefore, it is understandable if each party makes use of the concession to underpin its position during negotiations.

In proposing a territorial sea boundary departing from Sebatik Island to the east, for example, Indonesia is likely to consider relevant concession blocks such as Sebatik, NE Kalimantan, Bunyu and Sebawang. This can be seen in the forward position of Indonesia's maritime boundaries in the Sulawesi Sea as depicted by *Peta NKRI*.[1101] Apart from the issuance of the 1979 map, Malaysia has never explicitly sent any protest notes to Indonesia regarding the concession blocks defined by Indonesia in the area (at least in the public domain). Meanwhile, Malaysia's silence does not necessarily mean agreement to Indonesia's claim but Indonesia may argue that this silence can be an indication that Malaysia has not disagreed to Indonesia's unilateral claim. Apparently, this is Indonesia's rationale in proposing its unilateral maritime boundaries in the Sulawesi Sea. For Indonesia, the oil and gas concession blocks, especially those defined at an early stage, before the issuance of Malaysia's 1979 map, are worth considering in maritime delimitation in the Sulawesi Sea.

Similarly, Malaysia is also likely to propose the consideration of its own oil and gas concession block, notably ND6 and ND7 which are located in maritime area enclosed by its 1979 continental shelf outer limits. However, it is worth considering that the map has been protested by Indonesia and other States in the region soon after it was issued. This implies that ND6 and ND7 may not be viewed as legitimate concession blocks by Indonesia and probably other States in the region. In addition, the concession over ND6 and ND7 were granted by Malaysia to a commercial company after Indonesia had already awarded concessions for an area, which largely overlaps with Malaysian blocks of ND6 and ND7. Put simply, Indonesia awarded concessions over oil and gas blocks in the Sulawesi Sea and Malaysia did not show any immediate rejection. Meanwhile, when Malaysia made a unilateral claim over the same area that concessions have been awarded by Indonesia, Indonesia submitted a protest note. However, one may also argue that the issuance of ND6 and ND7 that overlap with some of Indonesia's earlier-defined concession blocks implies strongly Malaysian disagreement with Indonesia's unilaterally claimed concession blocks and maritime claims. From a Malaysia's perspective, blocks ND6 and ND7 are consistent with its unilateral claims made as

[1101] *Peta NKRI*, see above note 640.

depicted on the 1979 map (see below). The two concession blocks are located within the claimed line so the blocks, to an extent, are to strengthen Malaysia's unilateral claims.

6.6.6 Seabed and Water Column Boundaries

Beyond territorial sea (12 nautical miles from baselines), Indonesia and Malaysia will eventually need to settle maritime boundaries for seabed (continental shelf) and water column (EEZ) in the Sulawesi Sea. While rules governing the EEZ and continental shelf delimitation are *mutatis mutandis*,[1102] there is no rule to say that maritime boundary for the two different zones must be coincident.[1103] In the delimitation, Indonesia and Malaysia will be facing an issue whether or not they are going to establish a single boundary for a multizonal situation such as the Sulawesi Sea. In terms of zones, there are three different kinds, that is, the territorial sea, continental shelf and water column. In term of vertical layers, boundaries need to cover airspace, water column and seabed.

While there is no rule to say that single or multi maritime boundary boundaries should necessarily be established in a multizonal context, it is worth noting that single line can always be an option and this has been proved to be a popular choice in State practice. In the case of Indonesia and Malaysia in the Sulawesi Sea where no maritime boundaries have previously been established, the chance to establish a single line can be considered to be larger. This is certainly a different scenario compared to the case of maritime delimitation between Indonesia and Australia in the Timor Sea, for example.[1104] Indonesia and Australia did not delimit seabed boundaries and water column boundaries at the same time. This is understandable since water column boundary, which is governed under EEZ regime, emerged much later compared to the emergence of seabed or continental shelf regime.[1105] Indonesia and Australia managed to agree on a seabed boundary in the Timor Sea in the early 1970s before the EEZ concept was eventually recognised and codified by the international community through LOSC 1982. In this case, when Indonesia and Australia established maritime boundaries between them in

[1102] Delimitation of EEZ is governed by Article 74 of LOSC and Article 83 of LOSC governs the delimitation of continental shelf. Both articles are mutatis mutandis, almost verbatim one another.
[1103] Article 74 and 83 only state that the delimitation for EEZ or continental shelf should "achieve an equitable solution" without specifying any particular method. There is no provision in LOSC governing relationship between EEZ and continental shelf boundaries.
[1104] Prescott, JRV. 1997 The completion of marine boundary delimitation between Australia and Indonesia, Geopolitics, Vol. 2 No. 2, 132 – 149
[1105] Sovereign right of coastal States over seabed/continental shelf was officially codified in the 1958 United Nations Convention on the Law of the Sea, while EEZ was recognised and included only in 1982 when LOSC 1982 was eventually open for signature.

the early 1970s, there was no need to divide EEZ between the two States. Therefore, only seabed boundaries were settled in the early 1970s. Only after the ratification of LOSC 1982 by Indonesia and Australia did the two States view the need to delimit EEZ in the Timor Sea. In 1997, EEZ boundaries were agreed upon by Indonesia and Australia. It is worth noting that the rules or jurisprudence relation to seabed delimitation were significantly different in the 1970s as compared to those that applied after LOSC 1982 (see Chapter 2, section 2.5). With a difference between the two delimitations of more than 25 years and the difference between seabed and water column boundaries, it is acceptable that Indonesia and Australia to agree on different boundary lines for the seabed and the water column.

The case of Indonesia and Malaysia in the Sulawesi Sea is certainly different. Relevant provisions for EEZ and seabed delimitation are similar (*mutatis mutandis*) so it is likely that the two regimes are treated similarly in delimitation.[1106] The principle ideally to be adopted is the implementation of an "equitable solution" since it is equally applicable to EEZ and continental shelf delimitation. By considering relevant provisions in LOSC regarding delimitation, it is fair to say that a single maritime boundary for water column and seabed in the Sulawesi Sea is a possible and arguably favourable option for Indonesia and Malaysia.

In this context, it is once again worth asserting that single maritime for water column (EEZ) and seabed (continental shelf) boundary is not obligatory. While no maritime boundaries concerning seabed or water column has been established in the Sulawesi Sea, unilateral claims over the seabed have been there since 1960s. In this case, one might argue that the entitlement and interest of Indonesia and Malaysia over seabed area is different from that over water column. It is fair to say that when it comes to the seabed, Indonesia and Malaysia might not base their claim and or entitlement solely on LOSC 1982. This observation arises from the fact that Indonesia's continental shelf claim entitlements, and indeed the continental shelf regime, pre-dates LOSC 1982. In approaching future delimitation, it is therefore acceptable that the two States also consider unilateral claims they made prior to LOSC 1982. Meanwhile, there was no claim over water column beyond territorial sea made by Indonesia or Malaysia prior to LOSC 1982 for the regime was not there yet. This might bring a situation where parties in question do not see seabed delimitation as being necessarily the same as that of water

[1106] LOSC Article 74 and 83.

column. There may be a view that water column boundaries can be based solely on provisions in LOSC, while seabed delimitation may also consider State conduct, in this case, what Indonesia and Malaysia have claimed in the past. This view can consequently result in a proposal that seabed boundary and water column boundary may not be coincident.

From a practical point of view, a single maritime boundary is clearly more favourable, especially when it comes to boundary management. A single maritime boundary is likely to make the task to control activities around the border significantly easier. In addition, resources utilisation will also to a great extent prove to be easier. A good example of different lines for seabed and EEZ boundaries is shown in the case of Indonesia and Australia in the Timor Sea. Seabed boundary agreed upon by the two States in 1970s is located significantly closer to Indonesia's Pulau Timor than to Australia.[1107] In other words, seabed boundaries are located in the Indonesian side of a theoretical median line between Indonesia and Australia. The 1970s line delimits seabed only. Meanwhile, EEZ boundary established in 1997 apparently implements the principle of equitable solution and the line is located in the median line between Indonesia and Australia.[1108] Accordingly, seabed and EEZ boundaries are not coincident. In maritime area between the two different lines, the seabed is under Australia's jurisdiction but the water column superjacent to the seabed falls under Indonesia's jurisdiction. Oil and gas are certainly the entitlement of Australia but fishes swimming in the water represents natural resources useable by Indonesia. This can surely generates serious issues, especially to traditional fishermen operating in the area. Many of them do not understand this boundary issue that there are different 'fences' for seabed and water column. It is not easy, for example, to inform the laypeople in Indonesia that Indonesia is only entitled to fish and other resources in the water column but not to sedentary species living at or in the seabed. LOSC states that sedentary species are considered to be resources that belong to the seabed, not water column.[1109]

It can therefore be concluded that different boundaries settled for seabed and water column superjacent to it can create/add complexity. If insufficiently briefed, people

[1107] Measurement was done on Peta NKRI, 2012.
[1108] See above note 324.
[1109] Sedentary species, governed by Article 77 (4) of LOSC, is "organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil."

conducting activities around the border may misunderstand the situation. This lack of understanding can be harmful since it may lead to unlawful behaviours. Since there are two boundary lines on the map inadvertent border crossings are more likely, for example. Traditional fishermen with limited knowledge regarding international law of the sea, for example, may find it difficult to comprehend that they are allowed to catch fish but not sea cucumber.[1110] With limited knowledge, insufficient education/information and the nature of their fishing gear, the possibility for them to catch sedentary species where they are in fact not allowed, is always open. Incidences involving Indonesian fishermen in the Timor Sea are good examples of how complicated resources management can be when seabed and EEZ boundaries are not coincident.[1111] This is certainly a challenge for law enforcement. Accordingly, having different boundary lines for continental shelf and EEZ does not seem to be a good option for Indonesia and Malaysia in the Sulawesi Sea when it comes to border management and law enforcement. More importantly, the establishment of single maritime boundary for the seabed and water column in the Sulawesi Sea is acceptable since the rules/provisions of maritime delimitation for the seabed (continental shelf) are applicable *mutatis mutandis* to the water column (EEZ). However, the story can be different in other regions where seabed boundaries have been settled prior to EEZ boundary delimitation. It the latter case seabed might have been settled using different legal principles (e.g. under the 1958 Conventions), while EEZ boundaries can be settled using the LOSC. This difference of law can justify that a water column boundary may not be coincident with seabed boundaries.

6.6.7 Delimitation Options

The most recent practise in maritime delimitation suggests the use of three-stage approach as demonstrated in the decision by ICJ regarding maritime delimitation in the Black Sea case between Ukraine and Romania,[1112] and also in the maritime delimitation in the Bay of Bengal between Bangladesh and Myanmar[1113] as well as by the ICJ once

[1110] Sea cucumber is an example of sedentary species.
[1111] Herriman, M. and M. Tsamenyi. 1998., "The 1997 Australia-Indonesia maritime boundary treaty A Secure Legal regime for offshore resource development?", Journal of Ocean Development and International Law 29: 361-396; Fox, JJ. (2009) Legal and Illegal Indonesian Fishing in Australian Waters, in Cribb, R. and Ford, M. (eds) Indonesia Beyond the Water's Edge – Managing an Archipelagic State, ISEAS, Singapore.
[1112] Black Sea Case, see above note 316.
[1113] Bay of Bengal Case, see above note 327.

again in the Columbia-Nicaragua Case.[1114] This research employs the three-stage approach (see Chapter 2, subsection 2.6.5) to analyse possible options that Indonesia and Malaysia can consider in future maritime delimitation. This subsection analyses the three steps in the aforementioned three-stage approach. It starts by drawing provisional equidistance/median line followed by adjustment of the line by considering relevant factors, and undertakes disproportionality test as the final step to ensure the equitableness of the result.

6.6.7.1 Provisional equidistance/median lines

Equidistance or median line is certainly not a legally recommended method or overtly preferred in maritime delimitation. In particular for continental shelf and EEZ, there is no mention of any particular method. However, it is evident from recent cases decided by ICJ or ITLOS that equidistance/median line is a starting point for maritime delimitation. Additionally, equidistance line has proved to be by far the most popular method of delimitation used in State practice regarding ocean boundary making.[1115] In the case of Indonesia and Malaysia in the Sulawesi Sea, there are numerous different options of equidistance/median lines depending in particular on the baselines employed for each State. As previously discussed, Indonesia is legally entitled to archipelagic baselines and it has officially declared its baselines through a deposit to the United Nations. Accordingly, the use of Indonesia's archipelagic baselines in drawing provisional equidistance line can be considered to be acceptable. On the other hand Malaysia has yet to specifically designate any type of baselines in the relevant coastal area in the Sulawesi Sea. The use of normal baselines may be considered as a reasonable starting point for discussion although the potential use of straight baselines by Malaysia may also need to be considered.

The first option provided here is an equidistance line construction by giving full effect to Indonesia's archipelagic baselines and normal baselines for all of Malaysia's relevant islands. A different approach is by ignoring some small islands as demonstrated in the

[1114] Nicaragua v. Columbia, see above note 314.
[1115] With regards to delimitations between opposite coastal States, it has been estimated that 89% of agreements concluded were based on some form of equidistance. However, the figure drops into only 38% when adjacent State delimitation is considered. See, Legault, L and Hankey, B. "Method, Oppositeness and Adjacency, and Proportionality in Maritime Boundary Delimitation" in Charney, J and Alexander, L (eds) *International Maritime Boundaries* Volume 1, 1993, p. 203, 214.

Black Sea Case where no basepoint on Serpent's Island was considered in drawing provisional equidistance line.[1116] In this research, an option for discussion is one that ignores Malaysia's Sipadan and Ligitan Islands. The other options are in relation to the use of different types of baselines for Indonesia. Even though Indonesia is legally entitled to archipelagic baselines, there is still the option that the baselines are not fully considered in maritime delimitation. This is analogous to the fact there are cases when one State decides not to recognise the straight baselines of another State for the purpose of maritime delimitation.[1117] Alternatively, both States may agree to use normal baselines rather than other types of baselines that each has claimed. A good example of this practice is shown in the 1997 maritime boundary agreement between Thailand and Vietnam when both sides agreed not to use their straight baselines in the construction of a boundary line.[1118] Arguably, this scenario might reflect a situation where Malaysia's suspected but unpublished straight baselines balance Indonesia's archipelagic baselines and both sides therefore use normal baselines. Therefore, the other options are equidistance lines by employing normal baselines for Indonesia. The four different options of equidistance line are illustrated in the following Figure 6.9.

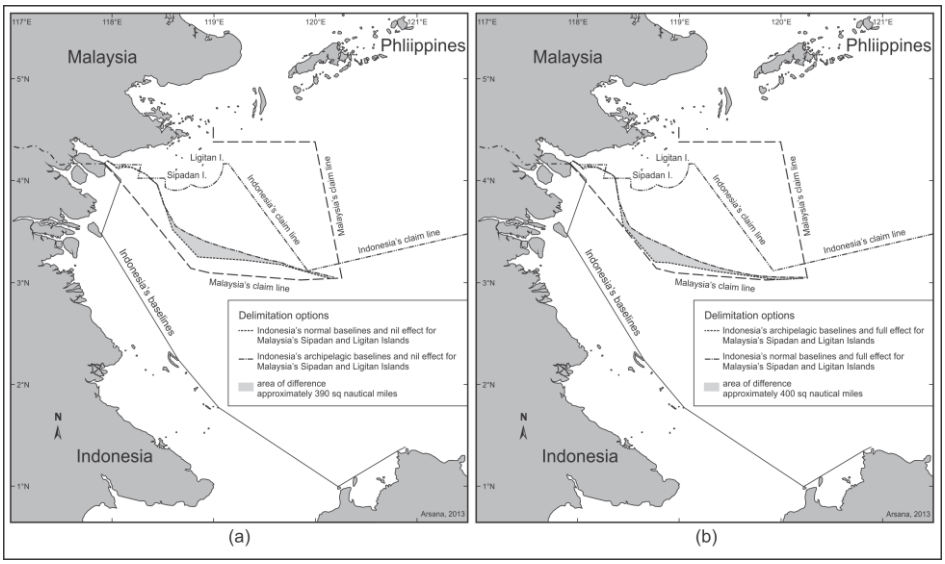

Figure 6.9 Provisional Equidistance Lines between Indonesia and Malaysia with Nil and Full Effect for Sipadan and Ligitan.[1119]

[1116] Black Sea Case, see above note 316, para. 149.
[1117] United Nations (2000) Handbook on the Delimitation of Maritime Boundaries, New York, United Nations, Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, UN Publication Sales No. E.01.V.2: 32.
[1118] Schofield, C.H. and Tan-Mullins, M. (2008) 'Claims, Conflicts and Cooperation in the Gulf of Thailand', Ocean Yearbook, 98-99.
[1119] Illustration by the author.

Figure 6.9 (a) illustrates equidistance line with both archipelagic and normal baselines of Indonesia and nil effect given to Sipadan and Ligitan Islands. The option shows two different lines, creating an area of difference of around 390 square kilometres. The second option in Figure 6.9 (b) illustrates a similar approach, only with full effect given to Sipadan and Ligitan Islands. The two different effects given to Sipadan and Ligitan show a relatively significant effect as seen from Figure 6.9. One thing to note is that all options are relatively closer to Malaysia's proposal in 1979 than to Indonesia's own 'forward position'.

6.6.7.2 Adjusted lines

There are several factors that can be considered to adjust the equidistance line produced in the first step of the three-stage approach. The existence of small islands is one of the key relevant factors to consider. In the case of Indonesia and Malaysia in the Sulawesi Sea, Sipadan and Ligitan are two islands the effect of which can be a variable factor. As they are relatively small islands, their effect may be reduced from full effect. It can be half effect or nil effect so that the location of equidistance line produced previously is shifted towards Malaysia's side. Figure 6.10 illustrates different options due to different effects given to Sipadan and Ligitan.

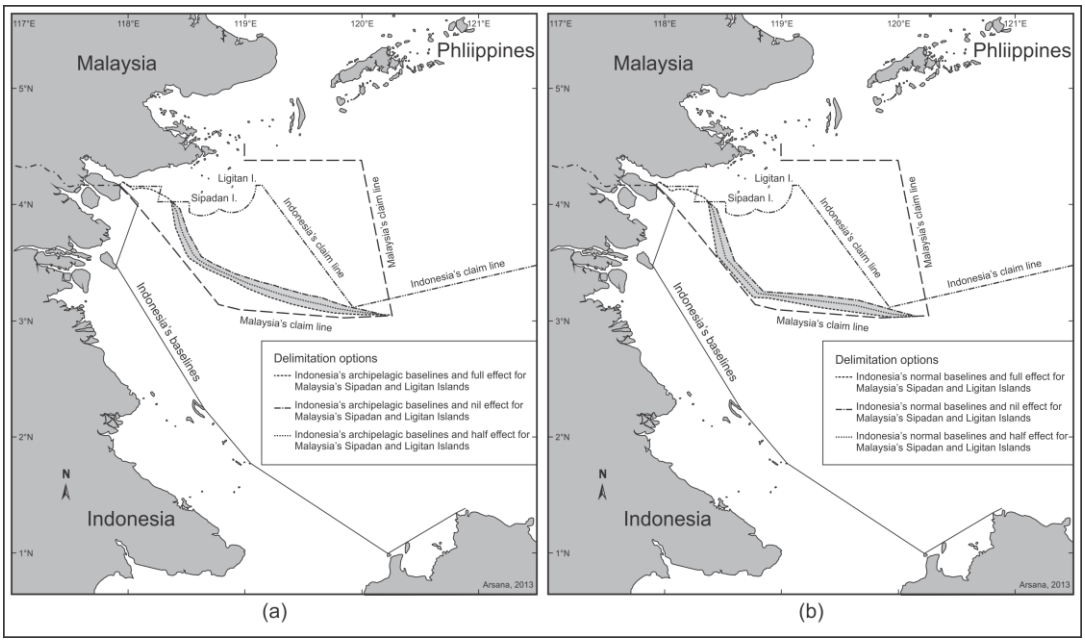

Figure 6.10 Provisional Equidistance Lines between Indonesia and Malaysia Nil, Full and Half Effect for Sipadan and Ligitan.[1120]

[1120] Illustration by the author.

Figure 6.10 (a) shows the use of Indonesia's archipelagic baselines resulting three different lines of options with full effect, half effect, and nil effect given to Sipadan and Ligitan, respectively. Figure 6.10 (b) shows similar three options, only using Indonesia's normal baselines. The option shown in Figure 6.10 (b) is closer to Malaysia's 1979 proposal even though Malaysia's claim is slightly further southward compared to the three options.

Potential of adjusted lines are indeed endless. Giving different effects to Sipadan and Ligitan is only one way to adjust the line, which already gives countless options depending on how much effect is given to the two islands in adjusting the equidistance line. Another factor to consider in adjusting or modifying the line is the comparison of relevant coast lengths between Indonesia and Malaysia. This is considered as an important aspect of coastal geography, and is commonly accepted in adjusting provisional equidistance/median lines. This approach was used both in the Black Sea Case[1121] and the Bay of Bengal[1122] to adjust the provisional line. It is generally accepted that a State with significantly longer relevant coast is entitled to a larger maritime area compared to a State with a shorter relevant coast. Accordingly, should a State be found to have a significantly longer coast than the other the provisional line may be shifted toward the State with shorter coast. However, the ICJ or ITLOS also found that coastal length disparity between States in question is not always seen as a relevant factor to adjust or shift the position of a provisional line. In the *Black Sea Case*, for example, coastal length disparity between Ukraine and Romania was not viewed as a significant factor to shift the provisional line that the court has previously drawn.[1123]

For the case of Indonesia and Malaysia in the Sulawesi Sea, relevant coastal lengths was also observed and taken into account. The relevant coast of Malaysia in the Sulawesi Sea is defined by measuring the length of the line representing the general direction of the coast. Meanwhile, Indonesia's relevant coast is represented by the length of relevant archipelagic baselines segments. It was found that Malaysia's relevant coast length is approximately 60 nautical miles, while Indonesia's is approximately 300 nautical miles in length. The comparison between Indonesia and Malaysia is around 5:1. Should this be considered in adjusting the provisional line then the result is a new line shifted

[1121] Black Sea Case, see above note 316.
[1122] Bay of Bengal Case, see above note 327.
[1123] Black Sea Case, see above note 316, para. 168.

towards Malaysian side of the equidistance line. To what extent the line should be shifted is not a strict mathematical rule. Cases decided by ICJ and ITLOS show that the proportion of coast length does not always have direct correlation with the extent to which a provisional line is shifted/modified.[1124]

Another option of adjusted line is by giving full effect to Indonesia's archipelagic baselines and ignoring all Malaysia's small islands. In this case, only Malaysia's normal baselines of mainland are considered in the delimitation. As a result, the equidistance line is shifted relatively significantly towards Malaysian side of the equidistance line. Even though it is now closer to the line that Indonesia unilaterally claimed in its official map, is still far enough from what Indonesia desires to arguably be the maritime boundary in the Sulawesi Sea. However, if the fact that Indonesia bases its proposal on existing concession block it already defined in the past is ignored, this option may be seen as the best Indonesia can get. At the same time, Malaysia will certainly see this as an unacceptable option since all of its small islands are ignored while Indonesia's archipelagic baselines are given full effect. Alternatively, should Malaysia's small islands are ignored, the option is also to ignore all Indonesia's small islands and utilise Indonesia's normal baselines in maritime delimitation. This approach results in a line which is close to Malaysia's unilateral claim made in 1979 as illustrated in Figure 6.11.

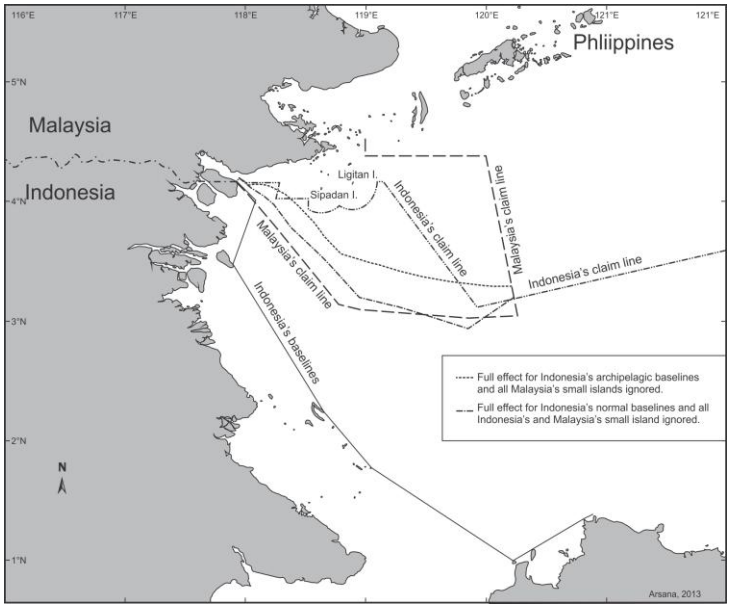

Figure 6.11 Adjusted Lines with the Use of Different type of Baselines and Nil Effect to all Small Islands of Indonesia and Malaysia

[1124] See above note 404, 411, and 413.

From the above analysis and discussion it can be concluded that possibilities for adjusted line in the second steps of the three-stage approach are endless. The role of baselines, coastal length proportion and weight given to smalls islands are three important factors that may affect the location of boundary lines. Were this delimitation scenario to be put before an international court or tribunal, the Judges involved would have discretion on these factors among others. Similarly, negotiation for the two States will to take account of these issues with many outcomes possible. There is no single model or guidance on how these three factors should be considered in adjusting the line. Predicting the final course of the delimitation line therefore remains lightly uncertain. Other factors that may also be proposed by parties in questions to be taken into account is existing oil and gas concession in disputed areas. In the case of Sulawesi Sea, existing oil concessions of Indonesia and Malaysia are factors that cannot be completely ignored.

6.6.7.3 Disproportionality Test

The third step in the three-stage approach as outlined by the Court in the Black Sea Case is the "disproportionality test" to ensure that the delimitation line "does not lead to any significant disproportionality by reference to the respective coastal lengths and the apportionment of areas that ensue."[1125] This can be done by comparing the ratio of relevant coastal lengths and the ratio of maritime areas assigned to the parties involved. The first step in this context is to define the relevant areas of delimitation for the purpose of calculating the size of the maritime area assigned to each party. Secondly, the coastal lengths of each party need to be measured and compared to calculate a ratio. Thirdly, the size of maritime area assigned to each party within relevant area of delimitation need to be calculated to also define ratio between them. The final stage is to compare the coastal length ratio and the ratio of maritime areas assigned to each party as the result of delimitation to decide whether or not the line needs further adjustment.

For the case of Sulawesi Sea between Indonesia and Malaysia, relevant area can be defined by considering the view of Indonesia and Malaysia regarding this from their respective unilateral claims. Relevant area of delimitation can be inferred from the extent of their forward position regarding maritime boundaries in the area. With this approach the relevant area is estimated to be 75,000 square kilometres as illustrated in

[1125] See above note 393, para. 210.

Figure 6.11. For the purpose of calculating the size of maritime area assigned to Indonesia and Malaysia, an option of maritime boundary line needs to be chosen. Since there are several (or endless) options of adjusted lines resulted from step two, only one is chosen for the purpose of this study. This is certainly not to recommend one option but to demonstrate how the test is done to prevent a solution from being disproportionate to one party in maritime delimitation. In this case, an option of delimitation with Indonesia's archipelagic baselines and nil effect for Sipadan and Ligitan is used as an example. It was found that the size of maritime area assigned to Indonesia is around 51,000 square kilometres, while for Malaysia is approximately 24,000 square kilometres, which makes a proportion of 2.1:1. Meanwhile, the proportion of coast length of Indonesia and Malaysia is 5:1, which is significantly different compared to the proportion of maritime area assigned to the two States. This is arguably and potentially an acceptable reason to shift the line in such a way towards Malaysian side of the line to prevent or at least lessen disproportionality. However, as previously mentioned, the proportion of coast length does not necessarily to have a direct bearing on the proportion of the size of maritime area assigned to parties in questions. Further, no international court or tribunal has found the need to revise and adjust its proposed delimitation line in light of the disproportionality test.

6.7 Concluding Remarks

Previous subsections clarify that sovereignty and sovereign rights over maritime areas in the Sulawesi Sea have yet to be made clear. At the time of writing, no agreed maritime boundaries are in place to define entitlement of each State. It is worth noting that Sulawesi Sea is proven to be rich in seabed resources including oil and gas deposits. Exploration of seabed resources has also been being undertaken by Indonesia since 1960s. Meanwhile, Malaysia, on the other hand, has declared its claim since 1979 but has yet to conduct exploration/exploitation in the Sulawesi Sea. In addition, Sulawesi Sea is also an important fishing ground for States in the region namely Indonesia, Malaysia and the Philippines. For certainty in managing resources in the areas, maritime boundaries are important.

With regards to maritime claim, Indonesia has declared its unilateral claim or forward position depicting maritime boundaries it prefers in the Sulawesi Sea in addition to unilaterally defined oil and gas concessions. Malaysia, on the other hand, has also made unilateral claims over maritime area in the Sulawesi Sea through its 1979 map, even

though the map was protested by Indonesia and other States in the region. The claim was confirmed in 2005 by the issuance of concession blocks which largely overlap with Indonesia's previous concession blocks in the area. The forward positions of each State regarding maritime boundaries in the Sulawesi Sea are apparently based on its unilateral claims and oil/gas concession blocks.

A three-stage approach has been applied in analysing options for Indonesia-Malaysia maritime boundaries sin the Sulawesi Sea and several options have been offered. In the first step, different options of equidistance resulted from the use of archipelagic and normal baselines of Indonesia. In the second step, the equidistance line was adjusted by considering the use of baselines, role of small islands, and proportion of relevant coast length. The existence of concession blocks may also be taken into account. Options of adjusted lines due to the aforesaid factors are essentially endless so it is not easy to pin point one single option for the best solution. However, as discussed previously this research is not meant to provide or dictate a definitive solution to the problem but instead to provide options to consider with supporting arguments. It is eventually up to States in questions to achieve an equitable solution for them.

As previously highlighted, maritime delimitation can be conducted through negotiation, mediation, arbitration and litigation by submitting it to a court or tribunal. Indonesia and Malaysia, so far, opt for negotiation to resolve maritime boundary issues between them. At the time of writing, there have been more than 25 technical meetings as part of the whole negotiation since 2005 when the Ambalat Block dispute emerged for the first time.[1126] It is worth noting, however, that maritime delimitation is by no means an easy or necessarily swift job. Negotiations between Indonesia and Vietnam, for example, took 25-30 years to accomplish until a seabed boundary was finally agreed upon on 23 June 2003. Meanwhile, negotiations between Indonesia and Malaysia have been taking place since 1960s with the first agreement signed in 1969. In more than four decades of negotiation, even though pauses did happen along the way, Indonesia and Malaysia have yet to finalise their maritime boundaries. Even though it can take a long time to finish the tasks, Indonesia and Malaysia are in a view that negotiation is a better option

[1126] General information on the negotiation has been obtained from Center for Boundary Mapping of Bakosurtanal. For confidentiality reason, significant amount of information are not released from public consumption.

compared to bringing the case before a third party such as ICJ.[1127] It is true that by opting for a negotiation, the parties in question poses a full control over the case as compared to submitting it to a third party. With this, each party can openly convey their interests and propose any option of their preference. The task of each party is to convince other party sitting at the other side of the negotiation table of its proposal. In short, each party has more freedom and flexibility to fight for their respective interest by considering any factors relevant to its own interests. The only question is whether or not they can convince each other or, more likely, find a common middle ground. The second reason is that brining a case to a third party such as ICJ can cost be very expensive. The case of Sipadan and Ligitan, for example, took around five years to decide and cost approximately IDR 16 billion (around AUD 1,468,000 – exchange rate of July 2013). Former Indonesian Minister of Foreign Affairs confirmed this in his interview with *Tempo* soon after the decision on Sovereignty over Sipadan and Ligitan was made by ICJ.[1128] In line with the aforementioned view, Indonesia and Malaysia, in fact, agreed to resolve the maritime boundary issues in the Sulawesi Sea through negotiation and not to bring the case to ICJ.[1129]

As previously highlighted, the Sulawesi Sea case is often associated with the Ambalat Block case, even though Ambalat is not the only concession block in the area. It is worth emphasising that Ambalat deals only with seabed (continental shelf) and has nothing to do with water column. Meanwhile, Sulawesi Sea requires not only seabed boundaries but also water column boundaries. In other words, Indonesia and Malaysia are dealing with more than merely the Ambalat case in the Sulawesi Sea. The question will be whether or not Indonesia and Malaysia agree on single or multi maritime boundary for continental shelf and EEZ. Opting a single maritime boundary means establishing one line to delimit seabed and water column. Practically speaking, the line will clearly define authority of each State to utilise/manage seabed resources such as oil, gas and sedentary species, and water column resources such as fisheries. This option is clearly advantageous for practical reasons, especially when it comes to natural resources

[1127] Antara, 2009, No plan to take Ambalat issue to ICJ. Available at <http://www.antaranews.com/en/news/1246945919/no-plan-to-take-ambalat-issue-to-icj> Accessed on 20 may 2012

[1128] *Tempo*. 2002. "Hassan Wirajuda: 'Tak Ada Lagi Pulau yang Menjadi Sengketa'", accessed from <http://www.tempo.co.id/harian/wawancara/waw-Hasan Wirayuda01.html> on 20 June 2009.

[1129] See above note 1127

management. This approach has also been adopted in several other cases such as that involving delimitation in a multizonal context.[1130]

Another option is to have each regime/zone delimited separately, which means different line for seabed (continental shelf) and water column (EEZ). This solution will generate maritime spaces where the seabed belongs to Indonesia but water superjacent to it belongs to Malaysia or vice versa. Practically speaking, fish belong to Malaysia but oil, gas and sedentary species are the entitlement of Indonesia or vice versa. While this option certainly causes relatively high complexity, it is not a new precedent since it has been adopted in other cases albeit rarely. As previously discussed, maritime boundaries between Indonesia and Australia in the Timor Sea were established with the same approach. The continental shelf boundary lines agreed in 1971 and 1972 is not coincident with EEZ boundary defined later in 1997.[1131] Consequently, in certain maritime areas in the Timor Sea, seabed is under Australian jurisdiction but water superjacent to it is under Indonesian authority. This is proven to cause complexity, especially in boundary management related to law enforcement. Research confirms that the difference between seabed and water column boundaries contributes to border crossing by Indonesian fishermen which mainly is related to fishing activities. Many Indonesian fishermen were captured by Australian patrolling officers due to this kind of incident. Even though having different boundary line for water column and seabed are a legitimate option, it seems that complexity it may cause can be harmful to fishermen and other parties operating in border area. Having observed this potential complexity, it is fair to argue that single boundary line is a promising option for Indonesia and Malaysia in maritime delimitation in the South Sulawesi Sea. However, this single maritime boundary is not applicable as an international norm as there is no provision in the LOSC stating that. In other words, this single boundary line might be suitable in one case but it may not be suitable to be implemented in other cases.

Finally, while it is certainly difficult from an academic standpoint to predict the outcome of the negotiations towards maritime boundary delimitation between Indonesia and Malaysia in the Sulawesi Sea, a number of points can be highlighted. First, the use of different baselines for Indonesia and Malaysia significantly affects the result of

[1130] Papanicolopulu, Irini. 2007. "A note on maritime delimitation in a multizonal context; The case of the Mediterranean", Ocean Development and International Law 38: 381-398.
[1131] See above note 1104.

delimitation, at least at the early/first stage. Indonesia can certainly make a strong case for the use of archipelagic baselines in the delimitation since Indonesia has deposited its baselines to the United Nations. On the other hand, Malaysia may also argue to apply straight baselines as it has also indicated to designate straight baselines where necessary. However, at the time of writing, Malaysia has yet to define the exact configuration of its straight baselines. This baselines issue can certainly be a key source of contention. Second, treatment of islands and small islands is also critical in maritime boundary delimitation between the two States. It is fair to say that small isolated/sparsely or uninhabited features such as Sipadan and Ligitan should be awarded a much reduced effect in such a way they do not cause disproportionate effect in the delimitation. Since it is a negotiation and both proposals have their respective strong reasons, the final line would likely fall between the two claim lines proposed by Indonesia and Malaysia. The negotiation process will define whether the final line will be closer to the claim of Indonesia of Malaysia.

CHAPTER 7 MARITIME DELIMITATION IN THE SINGAPORE STRAIT

"Good fences make good neighbours" - Robert Frost

7.1 Introduction

Frost (1917) made a prescient point with his observation that "good fences make good neighbours".[1132] This is arguably confirmed by the pattern of relationships between Indonesia and its neighbours, especially Malaysia and Singapore over the last few years. Both countries have yet to finalise the settlement of their maritime boundaries. It is the pending nature of a number of these boundaries, that is, where "good fences" are notable by their absence that appears to have sparked problems and tensions. It can be observed that these tensions are by no means new despite both countries' longstanding record of friendly bilateral relations and sincerity in seeking solutions.

A particularly salient example in this regard, the so-called 'Ambalat dispute', was addressed in Chapter 6. However, it is clear that the Ambalat issue was not the last 'unfinished business' in relation to pending maritime boundaries between Indonesia and Malaysia. Indeed, with, at the time of writing, several segments of maritime boundaries in four separate locations unresolved, it seems safe to anticipate similar border disputes and related issues arising in the future.

In August 2010, similar tensions built once again between the two countries in relation to an incident in the waters off Tanjung Berakit involving Indonesian officials, Malaysian fishermen and members of the Royal Malaysia Police (RMP). Tanjung Berakit is located to the northeast of Indonesia's Pulau Bintan in the eastern part of the Singapore Strait. In a similar manner to other issues regarding border disputes, the Indonesian media intensely covered the incident, arguably helping to cause tensions to escalate.[1133] The official press release of the Indonesian Ministry of Marine Affairs and

[1132] Robert Frost wrote a metaphoric poem entitled "Mending Wall", published in 1914 and appeared as the first selection in Frost's *North of Boston.* See Frost, Robert. 1917. North Of Boston. New York: Henry Holt and Company.

[1133] Detik, a leading online news portal in Indonesia, published a number of news and opinion that were provocative in nature. See for example an opinion published on 30 August 2010 "Cold war between Indonesia and Malaysia [*Perang Dingin Indonesia vs Malaysia*], available at <http://news.detik.com/read/2010/08/30/175016/1431458/471/perang-dingin-indonesia-vs-malaysia>, on 20 July 2013; *Kompas*.com, an Indonesian leading online news portal, published an article on 19 August 2010 entitled "Indonesia becomes a subordinate of Malaysia?" [*Insiden Tanjung Berakit: Indonesia Jadi "Subordinat" Malaysia?*], available at

Fisheries (MMAF) stated that three officials of a MMAF patrolling team were arrested by RMP personnel when they were patrolling the waters off Tanjung Berakit.[1134] According to the press release, the Indonesian patrolling team was on duty to protect the maritime area from a group of Malaysian fishermen who were allegedly fishing in Indonesian waters. A press release issued by the Indonesian Minister of Foreign Affairs (MoFA) on 18 August 2010 further asserted that the incident took place in Indonesian waters and that MoFA would responsibly do whatever is needed to deal with the issue.[1135] Similar stories were featured also through newspapers and other electronic news media in Indonesia.[1136] On the other hand, Malaysia viewed the seizure of the seven fishermen took place in Malaysian waters.[1137] At the time of writing, no tension is building even though the issue has yet to be fully settled. Both countries are cooperating to find a solution by intensifying negotiations regarding the delimitation of the maritime boundaries between them.[1138]

This brief summation of the Tanjung Berakit incident is designed to underscore the currency and importance of the unresolved issue of maritime boundary delimitation in the Singapore Strait (that is, through the waters off Tanjung Berakit). The chapter draws on the foregoing discussion of the maritime jurisdictional rights of coastal States and principles of maritime boundary delimitation covered in Chapter 2 of this thesis. An overview of the geographical context and arena for maritime delimitation in this area is provided together with a brief assessment of what is at stake in terms of marine

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<http://bisniskeuangan.*Kompas*.com/read/2010/08/19/03050558/Indonesia.Jadi.Subordinat.Malaysia.>, on 20 August 2010.

[1134] MMAF. 2010. MMAF "Press release: 3 fisheries observers detained by Royal Malaysia Police [in Indonesian]", available at <http://www.dkp.go.id/archives/c/34/ 3221/3-pengawas-perikanan-ditahan-oleh-polisi-perairan-marine-police-diraja-malaysia>, on 17 August 2010.

[1135] MFA. 2010a. "Indonesia sent a diplomatic note conveying protest to Malaysia", available at <http://www.deplu.go.id/Lists/News/ DispForm.asp?ID= 3878&l=en>, on 20 August 2010. The press release has been moved to <http://www.kemlu.go.id/Lists/News/DispForm.aspx?ID=3878>, as accessed on 29 July 2013.

[1136] See, *Kompas*, 2010, "Malaysian Fishermen admitted that It Was an Accident" [*Nelayan Malaysia Mengaku Tak Sengaja*], available at <http://health.*Kompas*.com/read/2010/08/15/18113777/Nelayan.Malaysia.Mengaku.Tak.Sengaja>, on 16 August 2010.

[1137] *The Star Online*, 2010, "Seven Malaysian fishermen held by Indonesians", available at <http://www.thestar.com.my/story.aspx?sec=nation&file=%2f2010%2f8%2f16%2fnation%2f6862419>, on 16 August 2010.

[1138] As at July 2013, 25 meetings have been conducted by Indonesia and Malaysia for the purpose of maritime boundary delimitation. Information regarding the development of the negotiation is obtained from press releases of the Indonesian Ministry of Foreign Affairs. Available at <http://www.kemlu.go.id/Pages/PressRelease.aspx>. Additional information has been obtained from Centre for Boundary Mapping of Bakosurtanal. For confidentiality reason, only limited information is available for the purpose of this research.

resources and activities in the Singapore Strait. Reference to the *Pedra Branca Case* between Malaysia and Singapore, decided by the ICJ in 2002 is also made in this context. The maritime claims of the littoral States specific to the Singapore Strait are then addressed, building on analysis provided in Chapter 3 and the Tanjung Berakit incident is addressed in more detail, including from a technical/geospatial perspective. Existing maritime boundary agreements in the area are analysed and efforts towards dispute resolution assessed. In keeping with the research approach outlined in Chapter 1 (section 1.7), potential maritime delimitation options are assessed. This involves analysis of relevant baselines issues and the development of multiple maritime delimitation options based on the application of the three stage process to delimitation discussed in Chapter 2 (subsection 2.6.5). It should be noted that the author has endeavoured to undertake his analysis of the national maritime claims and thus potential maritime boundaries of the States involved from a neutral, scientific perspective. Accordingly, positions and information expressed here are not those of any concerned government. However, it is hoped that any or all of the relevant parties may consider the suggestions provided in this chapter as constructive alternatives in settling maritime boundaries between Indonesia, Malaysia and possibly Singapore in the Singapore Strait. A summary assessment of research findings is provided in the concluding part of the chapter.

7.2 The Singapore Strait

7.2.1 Geographical Setting

The Singapore Strait is located between Malacca Strait to the west and South China Sea to the east. The International Hydrographic Organization defines that its limit[1139] on the east is a line joining Tanjung Datuk, the southeast point of Johor (1° 22’ N, 104° 17’ E) through Hosburgh Reef (Pedra Branca) to Pulau Koko at the northern extreme of Bintan Island (1° 13.5’ N, 104° 35’ E). On the north, the Singapore Strait’s limit is the southern shore of Singapore Island, Johor Shoal and the south-eastern coast of the Malay Peninsula. Its limit on the south is a line joining Pulau Karimun [Kecil] to Pulau Pemping (1° 06.5’ N, 103° 47.5’ E) thence along the northern coast of Batam and Bintan Islands to Pulau Koko. The Strait is around 57 nautical miles in length with the narrowest point between Indonesia and Singapore is around 2 nautical miles and around

[1139] International Hydrographic Organization. 1953. Limits of Oceans and Seas, 3rd edition, p. 23. available at <http://www.iho-ohi.net/iho_pubs/standard/S-23/S23_1953.pdf>, on 7 July 2013.

8 miles between Indonesia's baselines and the nearest point in the southern tip of the Malay Peninsula.[1140] Together with the Malacca Strait, Singapore Strait is considered as among the busiest sea-lanes in the world.[1141] Not only are they the busiest, the two Straits are also considered as "the most economically important water way in the world."[1142] In the Singapore Strait there is Middle Channel, which is the main shipping channel in the Strait and also the strait's traffic separation scheme (SPS). The SPS was established by the International Maritime Organization (IMO) on the recommendation of the governments of Indonesia, Malaysia and Singapore.[1143]

In light of the existing Indonesia-Singapore maritime boundary agreements of 1973 and 2009 (see Chapter 4, section 4.5), the undelimited maritime boundary discussed in this chapter, is located in the eastern part of the Singapore Strait. More specifically the area for delimitation is to the east of point 6 of the 1973 Agreement between Indonesia and Singapore.[1144] Therefore the relevant area in this discussion starts from the longitude 104° 02' 00" E[1145] eastwards until the South China Sea where three islands/rocks/LTEs, Pedra Branca (PB), Middle Rock (MR) and South Ledge (SL), are located as illustrated in Figure 7.1.

[1140] The length is measured on British Admiralty Chart (BAC) No. 3831

[1141] The number often quoted is that around 60,000 ships use these waterways annually. See, for example, Bateman, S., Raymond, C. Z., & Ho, J., 2006, "Safety and Security in the Malacca and Singapore Straits: An Agenda for Action", Institute of Defence and Strategic Studies, Nanyang Technological University, p. 8.

[1142] Bateman, S., 2009, "Regime building in the Malacca and Singapore straits: two steps forward, one step back". Economics of Peace and Security Journal, Volume 4, Issue 2, p. 45.

[1143] Robert Beckman and Clive H. Schofield 'Moving Beyond Disputes Over Island Sovereignty: ICJ Decision Sets Stage for Maritime Boundary Delimitation in the Singapore Strait' (2009), 40 (1) *Ocean Development & International Law*, 2.

[1144] The 1973 treaty between Indonesia and Singapore and an analysis on it can be obtained from the US State Department, available at <http://www.state.gov/documents/organization/61500.pdf>, on 20 September 2010.

[1145] According to the 1973 Treaty, point 6 is located at (1°16'10"2 N, 104°02'00".0 E). See above note 1144.

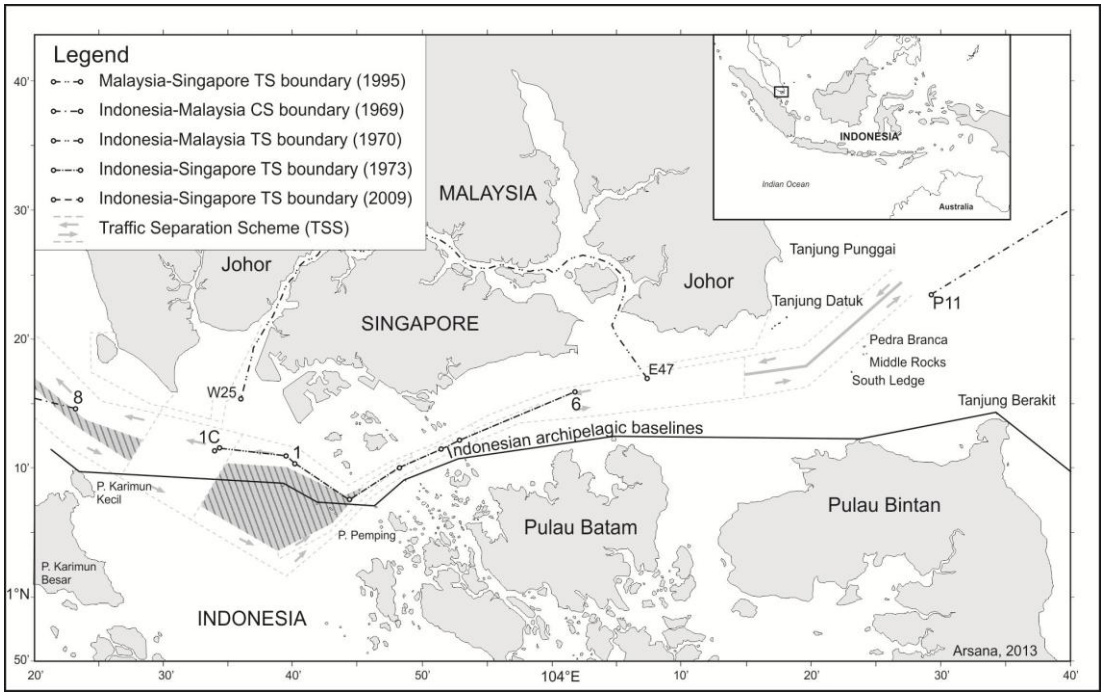

Figure 7.1. The Singapore Strait[1146]

The presence of the three islands/rocks/LTEs in the area to be delimited is clearly likely to add complexity to the delimitation process. Moreover, the delimitation scenario is further complicated in that three States, Indonesia, Malaysia and Singapore, are involved in inter-related maritime delimitations in the eastern Singapore Straits. Sovereignty over Pedra Branca, Middle Rock and South Ledge was determined following a ruling of the International Court of Justice in 2008 as discussed further in the following subsection.

7.2.2 The Pedra Branca Case

Until 2008, Malaysia and Singapore had disputed sovereignty over three features located in the eastern part of the Singapore Strait: Pedra Branca, Middle Rocks and South Ledge. This dispute endured for around 30 years until it was resolved by the International Court of Justice on 23 May 2008.[1147] Through its decision, ICJ determined that sovereignty over Pedra Branca rested with Singapore, while that over Middle Rocks lay with Malaysia. Meanwhile, the sovereignty over South Ledge was undecided (see below).[1148]

[1146] Illustration by the author.
[1147] Pedra Branca Case, see above note 73.
[1148] See above note 1147.

The nearly-three-decade sovereignty dispute over the three islands/rocks at the eastern entrance of Singapore Strait first emerged when Malaysia issued its 1979 map, often referred to as the *Peta Baru* [New Map], which included Pedra Branca within its claimed maritime zones and thus as part of its territory.[1149] Singapore sent a protest note to Malaysia on 14 February 1980, and requested the map to be amended.[1150] However, Malaysia refused to do so and an exchange of correspondence between the two States started and then followed much later by intergovernmental talks in 1993-1994.[1151]

Having been unable to reach agreement on the issue, the aforementioned case was brought to the ICJ in 2003 by Malaysia and Singapore. On 24 July 2003, Malaysia and Singapore sent a joint letter to notify the ICJ's registrar of their Special Agreement, requesting the Court to determine whether sovereignty over Pedra Branca, Middle Rocks, and South Ledge belonged to Malaysia or to Singapore.[1152] Specifically, the ICJ was asked to determine sovereignty over the three maritime features,[1153] but not to draw "the line of delimitation with respect to the territorial waters of Malaysia and Singapore in the area in question".[1154] Public hearings were held in The Hague on 6-23 November 2007, where the two claimants presented their arguments.[1155] It involved three rounds of written pleading (dated 25 March 2004, 25 January 2005, and 25 November 2005)[1156] and 12 rounds of oral proceeding from 6 to 23 November 2007[1157]. and The ICJ decision was made by majority vote six months later on 23 May 2008. The decision made by the Court is final and binding on Malaysia and Singapore. This principle of

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[1149] The 1979 map, also called *Peta Menunjukkan Sempadan Perairan dan Pelantar Benua* Malaysia [Map Showing the Territorial Waters and Continental Shelf Boundaries of Malaysia], was published by the Malaysian Directorate of National Mapping in two sheets, 21 December 1979, on file with the author.
[1150] See, National Archive of Singapore, 2008, Solving Bialteral Dispute Diplomaticallay – Pedra Branca/Pulau Batu Puteh, available at <www.nas.gov.sg/1stcab/7585/Panels/sec3_2_opt.pdf>, on 20 July 2013.
[1151] Pedra Branca Case, see above note 73, para. 31.
[1152] ICJ's Press Release Number 2006/38 "Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge (Malaysia/Singapore). Public hearings on the merits of the dispute to open on Tuesday 6 November 2007. Available at <http://www.icj-cij.org/docket/files/130/13351.pdf>, on 20 June 2011; See also, Special Agreement for Submission to the International Court of Justice of the Dispute between Malaysia and Singapore concerning over Pedra Branca/Pulau Batu Puteh, Middle Rock, and South Ledge (hereinafter Malaysia-Singapore 2003 Special Agreement), available at <http://www.icj-cij.org/docket/files/130/1785.pdf>, on 20 June 2011.
[1153] Malaysia-Singapore 2003 Special Agreement, Article 2.
[1154] Pedra Branca Case, see above note 73, para. 298.
[1155] See above note 1152
[1156] Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge (Malaysia/Singapore): Written Proceeding, available at <http://www.icj-cij.org/docket/index.php?p1=3&p2=3&k=2b&case=130&code=masi&p3=1>, on 20 June 2011.
[1157] Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge (Malaysia/Singapore): Oral Proceeding, available at <http://www.icj-cij.org/docket/index.php?p1=3&p2=3&k=2b&case=130&code=masi&p3=2>, on 20 June 2011.

binding acceptance of the final judgement was agreed prior to bringing the case before the Court.[1158] The next important step is the delimitation of maritime boundaries in the Singapore Strait in the aftermath of the ICJ decision. As previously mentioned, this will involve Indonesia, Singapore and Malaysia.

7.2.3 Potential Resources and Values of the Singapore Strait

Shipping is certainly the main activity in the Singapore Strait, for which it is considered as among the busiest waterways the world.[1159] There are around 60,000 ships which pass through the Malacca and Singapore Straits annually.[1160] However, this might not reveal the true situation in the area since local, cross-strait traffic tends to be ignored in reports on the Malacca and Singapore Straits.[1161] For example, it has been estimated that 93,757 vessels of over 100 gross registered tons used the straits in 2004 alone.[1162]

In addition to shipping, fishing is one of the main activities in the Singapore Strait. Traditional fishermen from Malaysia and Indonesia both operate in the area, especially around the waters off Tanjung Berakit, in the eastern part of the Singapore Strait (see Figure 7.1). Indonesia, for its part, has established Fishery Management Areas (*Wilayah Pengelolaan Perikanan*, WPP)[1163] one of which includes the Singapore Strait. Indonesian waters are divided into eleven WPP and Singapore Strait is included in WPP 711 which also encompasses the South China Sea. According to the Ministry Regulation number 45 of 2011 on the Estimation of Fisheries Resources Potential in

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[1158] Malaysia-Singapore 2003 Special Agreement, Article 6.

[1159] There are around 60,000 ships pass through the Malacca Strait and Singapore annually. See, for example, J. H. Ho, "The Security of Sea lanes in Southeast Asia," Asian Survey 46 (2006): 558–574, at 560. However, this might not reveal the true situation in the area. Beckman, Robert and Schofield, Clive (2009) 'Moving Beyond Disputes Over Island Sovereignty: ICJ Decision Sets Stage for Maritime Boundary Delimitation in the Singapore Strait', Ocean Development & International Law, 40:1, 1 -35 at 2, state that local, cross-strait traffic tends to be ignored in report on the Malacca and Singapore Straits. S. Bateman, J. H. Ho, and M. Mathai, "Shipping Patterns in the Straits of Malacca and Singapore: An Assessment of the Risks to Different Types of Vessel," Contemporary Southeast Asia 29 (2007): 309–332, at 325, quote the number of 93,757 vessels of over 100 gross registered tons used the straits in 2004 alone.

[1160] See, for example, J. H. Ho, "The Security of Sea lanes in Southeast Asia," Asian Survey 46 (2006): 558–574, at 560

[1161] Beckman, Robert and Schofield, Clive (2009) 'Moving Beyond Disputes Over Island Sovereignty: ICJ Decision Sets Stage for Maritime Boundary Delimitation in the Singapore Strait', Ocean Development & International Law, 40:1, 1 -35 at 2.

[1162] S. Bateman, J. H. Ho, and M. Mathai, "Shipping Patterns in the Straits of Malacca and Singapore: An Assessment of the Risks to Different Types of Vessel," Contemporary Southeast Asia 29 (2007): 309–332, at 325.

[1163] WPP is established pursuant to the Indonesian Minster of Marine Affairs and Fisheries' regulation Number 1 of 2009. Accessed from <http://www.infohukum.dkp.go.id/produk.php?cmd=download_produk&id=656> on 22 August 2010.

Indonesia's WPP, it was estimated that fisheries resources potential in WPP 711 is around 1,059,000 tonnes per year, as outlined in **Table 6.1**.[1164]

Table 7.1 Fisheries Resources Potential in WPP 711 (Singapore Strait and South China Sea)

No	Fisheries Resources Group	Estimate potentials (in 1000 tonne per year)
1	Large Pelagic Fish	66.1
2	Small Pelagic Fish	621.5
3	Demersal Fish	334.8
4	Penaeid Shrimp	11.9
5	Consumption Rockfish	21.6
6	Lobster	0.4
7	Squids	2.7
Total		1059

In the aforementioned ministry regulation, there is no distinction between the Singapore Strait and the South China Sea in terms of fisheries potential. It is therefore not easy to isolate the fisheries potential of the Singapore Strait. That said, clearly the extent of the body of water Singapore Strait is significantly smaller in size compared to Indonesia's portion of the South China Sea. Accordingly, it is anticipated that fisheries potential in the Singapore Strait is substantially lower than that in the South China Sea. However, this WPP estimation does confirm that Singapore Strait is also important for its fisheries resources being a part of a marine area known to be host to abundant marine living resources. This provides a further reason for Indonesia, Malaysia and Singapore to accelerate the finalisation of maritime delimitation in the area. Overall, therefore, the three coastal States have numerous interrelated reasons to desire maritime jurisdictional clarity in the Singapore Strait, especially in light of the multiple resources and activities in these waters and given the intensity of uses in the area. Such jurisdictional certainty can only be delivered through the delimitation of maritime boundaries. This is undoubtedly also the case with other regions where Indonesia needs to share maritime areas with its neighbours. It is clear that settled maritime boundaries are essential not only to know one's rights but also to be aware of one's obligations and responsibilities in respect of ocean management.

[1164] Ministry of Marine Affairs and Fisheries Regulation Number 45 of 2011 on the Estimation of Fisheries Resources Potentials in Indonesian WPP.

7.3 Maritime Claims in the Singapore Strait

Indonesia, Malaysia and Singapore are all parties to LOSC.[1165] Accordingly, all the three States have maritime jurisdictional claims that are based on the provisions of LOSC. Theoretically speaking, as noted in Chapter 2, each State is entitled to territorial sea, contiguous zone, EEZ and continental shelf, subject to the extent of maritime space available to extend their claims.

In the context of the Singapore Strait, the proximity of the three bordering States to one another means that the waters between them are constricted. This geographical reality dictates that overlapping maritime claims are all but inevitable. The following section therefore reviews the maritime claims of Indonesia, Malaysia and Singapore with particular reference to the Singapore Strait.

7.3.1 Indonesia's Claims

As detailed in Chapter 3 (sections 3.8 and 3.9) Indonesia, as an archipelagic State, has designated its archipelagic baselines.[1166] Indonesia claims zones of maritime jurisdiction in the Singapore Strait measured northward from its archipelagic baselines. As previously mentioned in Chapter 3, Indonesia may and has claimed territorial sea, contiguous zone, EEZ, and continental shelf, measured from the aforementioned archipelagic baselines. However, these claims are subject to the availability of maritime space where they can be asserted – something that immediately raises the question of the distance of Indonesia's coasts and baselines from its immediate neighbours. The distance between Indonesia's basepoints and Malaysia's or Singapore's basepoints is less than 24 nautical miles.[1167]

Considering the geospatial extent of maritime area in the Singapore Strait, Indonesia 'only' has the space to claim a territorial sea. As noted in Chapter 3 Indonesia, in principle, claims a 12 nautical-mile maritime breadth territorial sea measured from its

[1165] Indonesia was first to ratify the LOSC in 1985 by Act Number 17/1985 followed by Singapore on 17 November 1994 and Malaysia on 14 October 1996. See, Chronological lists of ratifications of LOSC, see above note 221.

[1166] Indonesia deposited its completed archipelagic baselines to the UN on 11 March 2009. For the complete documentation of the deposit, see, M.Z.N.67.2009.LOS of 25 March 2009: Deposit of a list of geographical coordinates of points of the Indonesian Archipelagic Baselines based on the Government Regulation of the Republic of Indonesia Number 38 of 2002 as amended by the Government Regulation of the Republic of Indonesia Number 37 of 2008. Available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/mzn_s/mzn67.pdf>

[1167] Distances measured on a British Admiralty Chart (BAC) Number 3831.

archipelagic baselines.[1168] However, because of the proximity of the territories, baselines and maritime claims of neighbouring States and thus the geographical dimensions of the Singapore Strait, it is not possible for Indonesia to optimise its claim up to the full 12 nautical miles from its archipelagic baselines. Consequently, Indonesia has in some instances concluded territorial sea boundaries with its neighbours, notably Singapore (see Chapter 4, section 4.5). Indonesia's territorial sea delimitations in the Singapore Strait are incomplete, however, so Indonesia has opted to define unilateral lines depicting the outer limits of its claimed territorial sea. A geospatial analysis conducted in this research shows that Indonesia's unilateral claim is largely based on median/equidistance line by giving full effect to Indonesia's baselines and Malaysia's normal baselines.[1169] Indonesia apparently ignores Pedra Branca, Middle Rocks and South Ledge in drawing its claimed lines and gives the three features only 500 metres maritime zone as illustrated by Figure 7.2.

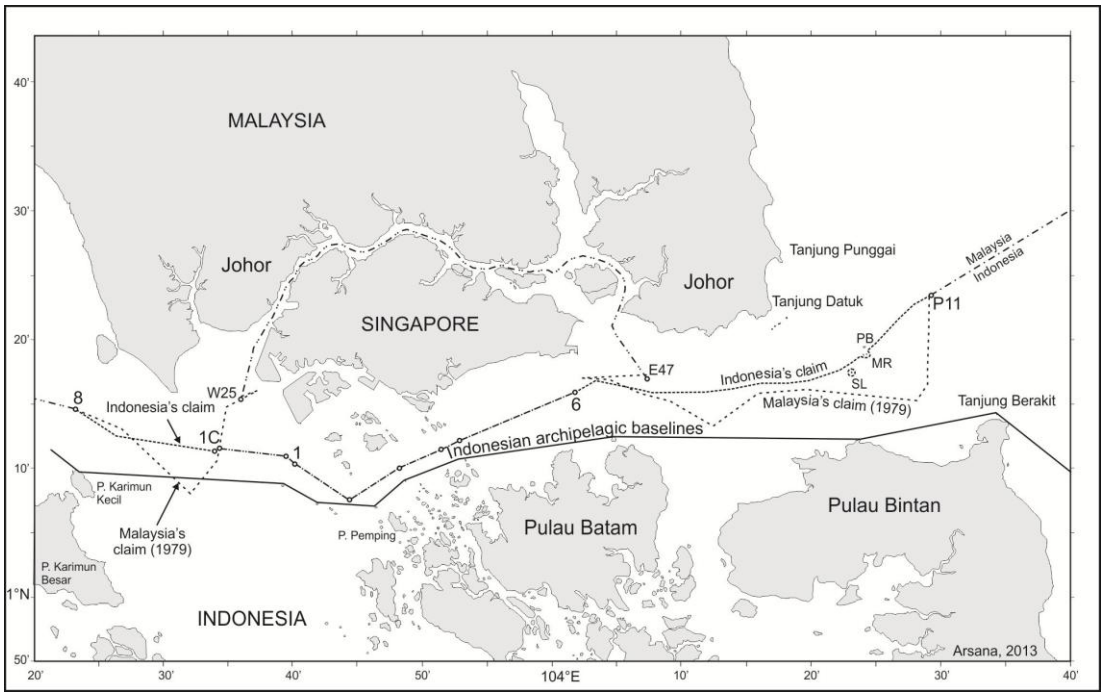

Figure 7.2 Map Showing Settled Maritime Boundaries and Unilateral Maritime Claims of Indonesia and Malaysia in the Singapore Strait[1170]

In addition to Indonesia's official map,[1171] its unilateral maritime claim is also represented by Fisheries Management Area or *Wilayah Pengelolaan Perikanan* (WPP).

[1168] The claim by has started earlier than the signature of the LOSC. In 1960 Indonesia promulgated the Act Number 4/prp/1960 stating that Indonesia claims 12 nautical miles of territorial sea.
[1169] Geospatial analysis conducted using CARIS LOTS (see Chapter 1 subsection 1.7).
[1170] Illustration by the author.
[1171] *Peta NKRI*, 2009, see above note 640.

WPP is governed by MMAF's Regulation number 1 of 2009 of the Republic of Indonesia.[1172] The regulation is visualised by a map showing WPP in eleven different locations/zones, pursuant to Article 1(2) of the Ministry Regulation (see Chapter 6, subsection 6.2.2.2). Maritime area around the Singapore Strait (off Tanjung Berakit), in this is case, are part of WPP-711 (see Figure 6.2 in Chapter 6).

7.3.2 Malaysia's Claims

As discussed in Chapter 6 (subsection 6.3.2), Malaysia officially declared its claim over 12 nautical miles of territorial sea through the Government of Malaysia's Ordinance No. 7 of 2 August 1969.[1173] In the case of the Singapore Strait, Malaysia, as also the case of Indonesia and Singapore, cannot extend its claim up to 12 nautical miles from baselines since the width of the strait is less than 24 nautical miles. Consequently, territorial sea delimitation is required in the area, involving Malaysia, Indonesia and Singapore. To officially express its territorial sea claim, Malaysia issued a map in 1979, which is known as the 1979 Map or *Peta Baru*.[1174] Apparently, the 1979 map was produced with an assumption that Pedra Branca, Middle Rock and South Ledge were part of Malaysia so that the three features are within the outer limits of Malaysia's maritime claim. This can be inferred from the unilateral line around the Singapore Strait that encloses waters around the three features. Consequently, the line may be viewed reasonably excessive in nature for it lies to the south of the three features, as if they belong to Malaysia. In fact, the three features were still disputed by Malaysia and Singapore when the 1979 map was published. Malaysia's maritime claims in the Singapore Strait are illustrated in Figure 7.2.

7.4 The Tanjung Berakit Incident

Similar to other boundary issues involving Indonesia and Malaysia, the Tanjung Berakit incident on 13 August 2010 easily made its way to the headlines of newspapers and television news in Indonesia.[1175] On the other hand, the coverage in Malaysian media did not seem to be as intensive as that in Indonesian media. Apparently, Malaysian

[1172] MMAF (2009) Peraturan Menteri Kelautan dan Perikanan Nomor 1 tahun 2009. Accessed from <http://www.infohukum.dkp.go.id/produk.php?cmd=download_produk&id=656> on 22 August 2010.
[1173] Emergency (Essential Powers) Ordinance, No. 7, 1969, as amended in 1969 (hereinafter Malaysia's 1969 Ordinance), available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/MYS_1969_Ordinance.pdf>, on 20 July 2013.
[1174] See above note 1149.
[1175] Online news portal such as Detik.com and *Kompas*.com made extensive coverage on the issue and some with provocative headlines. See above note 1133.

media had different views concerning border issues compared to Indonesia media bodies especially the way they relate the issues to sovereignty and sovereign rights. The press freedom that Indonesia enjoys after reforms dating from 1998 may be one of the reasons why Indonesian media is far more active and even aggressive in covering such issues.

While Indonesian media generally believed that the incident took place in Indonesian waters,[1176] it is interesting to observe that Malaysian media also released news expressing the view that the incident took place in Malaysian waters. *The Star Online* (17 August 2010), for example, stated that the three Indonesians were detained by Malaysian police because they "have encroached into Malaysian waters and abducted seven fishermen."[1177] This also added to the fact that both States have their unilateral claims and their respective national news media apparently took this information for granted.

As mentioned in the introduction (section 7.1) the incident involved the apprehension of seven Malaysian fishermen by Indonesian officials and was followed by the seizure of three Indonesian officials by the Royal Malaysian Police.[1178] On the day the incident took place, a group of Malaysian fishermen were fishing around the waters off Tanjung Berakit, which according to Malaysian officials was around Middle Rocks.[1179] Indonesian patrolling officers from the Ministry of Marine Affairs and Fisheries apprehended seven of the fishermen and detained them for committing illegal fishing in Indonesian waters. Not long after the seizure, patrolling officers from Malaysian Marine Operations Force approached and detained three of the Indonesian officers for they were "believed to have encroached into Malaysian waters and abducted seven Malaysian fishermen."[1180] It is intriguing to observe that patrolling officers from both States took the view that they had done what they were supposed to do to secure their respective territories. Both shared the view that they were protecting their own territory from encroachment by the other party. This further confirms how pending maritime boundaries can cause incidents in border areas. Even though the fishermen and the

[1176] See above note 1136.
[1177] *The Star Online*, 2010, Fishermen to be freed as maritime dispute settled, available at <http://www.thestar.com.my/story.aspx?sec=nation&file=%2f2010%2f8%2f17%2fnation%2f6869172>, on 20 August 2010.
[1178] See above note 1135
[1179] See above note 1177
[1180] See above note 1177.

Indonesian officials were eventually released,[1181] tensions did not easily disappear. To prevent tensions from escalating in Indonesia, President Susilo Bambang Yudhoyono (or SBY as he is often known) of Indonesia delivered a speech specifically to address the issue on 1 September 2010.[1182] Even though some opine that the response was relatively late, SBY addressed the issue proportionally by acknowledging relevant technical and legal aspects to the case. He rightfully described the case in a legal and technical framework as well as in the context of international relations between Indonesia and Malaysia. However, as opined by several parties, the speech did not seem adequately to represent the feeling of the Indonesian people in general. Arguably the general public's limited knowledge of international law and maritime delimitation principle was one of the contributing factors to the tensions that were building in Indonesia. It seems that SBY opted to put legal and technical aspects first, even though, consequently, he sacrificed his popularity in his response to the case. In his speech, SBY also specifically mentioned that he encouraged that negotiations between Indonesia and Malaysia to settle the maritime boundary be accelerated and completed.

Following SBY's speech, negotiations were carried out by the two States where the Ministers of Foreign Affairs of both States served as chief of delegation. The negotiations were held on 6 September 2010 in Kota Kinabalu, Malaysia.[1183] Even though much hope and pressure were put on the negotiations, it was not surprising that they could not solve the problem in the first instance. It is worth noting that it is exceedingly rare if not impossible for maritime boundaries to be settled as a result of one short meeting. However, considering the complexity of the issue, the meeting may be considered as having been reasonably successful since the two States managed to agree to accelerate the process of maritime delimitation. As noted in a press conference in Jakarta by Indonesia's foreign minister, Marty Natalegawa, maritime boundary negotiation can be a lengthy process.[1184] According to Natalegawa, the seabed boundary between Indonesia and Vietnam was negotiated for around 25-30 years before it was

[1181] *The Star Online*, 2010, Fishermen freed due to lack of proof, available at <http://www.thestar.com.my/story.aspx?sec=nation&file=%2f2010%2f8%2f22%2fnation%2f6900280>, on 24 August 2010; See above note 1135.
[1182] The full text of SBY's speech (in Indonesian) can be obtained from the President's official website. Available from <http://www.presidensby.info/index.php/pidato/2010/09/01/1473.html>.
[1183] MFA. 2010d. "Joint Commission for Bilateral Cooperation (JCBC) Indonesia – Malaysia", available from <http://www.deplu.go.id/kotakinabalu/Pages/ Embassies.asp?IDP=19&l=id>
[1184] See above note 1135. For Dr. Marty Natalegawa's more detailed explanation, listen to the recorded audio from <http://www.deplu.go.id/Pages/Audio.aspx?IDP=39&l=id>.

agreed in 2003.[1185] However, some other negotiations took relatively less time to accomplish. Negotiations between Indonesia and Singapore for the western segment of their territorial sea boundary were finalised in 'only' five years.[1186]

7.4.1 Location Does Matter

In analysing a case of alleged border crossing, information on location is essential. Unfortunately, for the purpose of the present analysis, information on the accurate position of the incident is unavailable from official sources. Although precise coordinates were unavailable, approximate locations were able to be derived from descriptive information provided by officials from the Indonesian MMAF and MoFA in their official press releases indicate that the incident took place in the waters off Tanjung Berakit at the eastern entrance to the Singapore Strait.[1187] A geospatial analysis conducted by the Centre for Boundary Mapping of the then Bakosurtanal (now BIG) shows there coud be several possible location of the incidents but all of them are within the overlapping claims of Indonesia and Malaysia.[1188] The possible location of the incidents are illustrated by Figure 7.3.

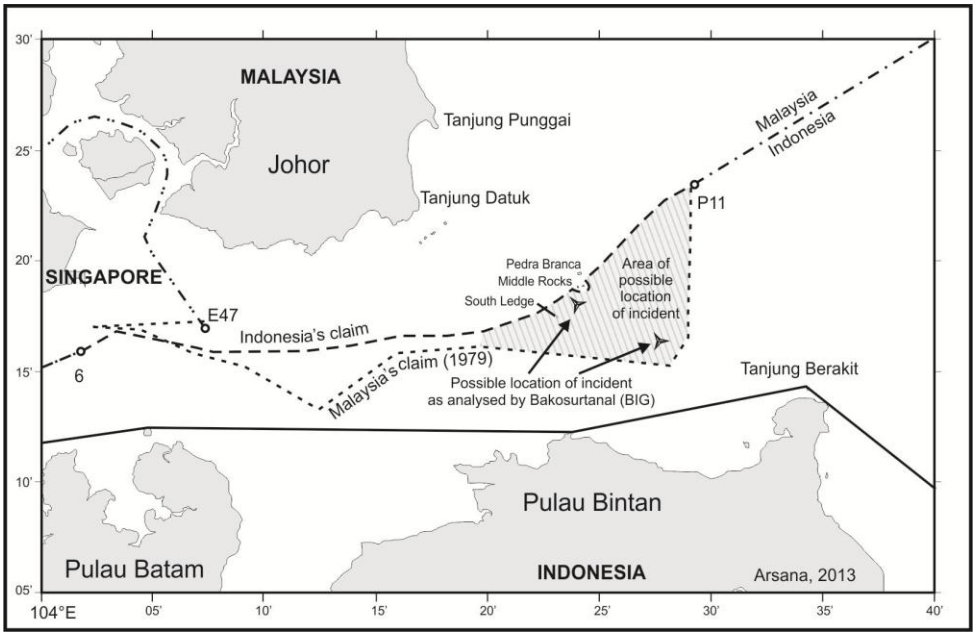

Figure 7.3. Map Showing the Location of Incident in the Waters off Tanjung Berakit[1189]

[1185] *Ibid.*
[1186] *Ibid.*
[1187] See above note 1134and 1135
[1188] For the confidential nature of the information, detailed result of the analysis is not available for public consumption. An illustration of the incidents is with the Author.
[1189] Illustration by the author.

Based on the descriptive information provided by MMAF and MoFA, it can also be inferred that the incident took place in WPP-711, a zone of fisheries management around the Singapore Strait extending northeastwardly to the South China Sea (see subsection 7.2.3). As illustrated by Figure 7.4, WPP-711 is an area within a polygon formed by both agreed maritime boundary lines and Indonesia's unilateral claim lines (see also Chapter 5 subsection 5.2.3). The map was issued by the Indonesian Navy Hydro-Oceanographic Office and was officially published by MMAF in November 2009 (see subsection 7.2.3).[1190] Similarly, MoFA also asserted that the incident took place in Indonesian waters, based on map No. 349 of 2009, which clearly depicts the Indonesian claims.[1191] Interestingly, Indonesia's unilateral claim has not yet been protested by Malaysia and Singapore even though the unilateral claim clearly generates overlapping area with that of Malaysia's. Figure 7.4 illustrates maritime area around the Singapore Strait enclosed by WPP-711.

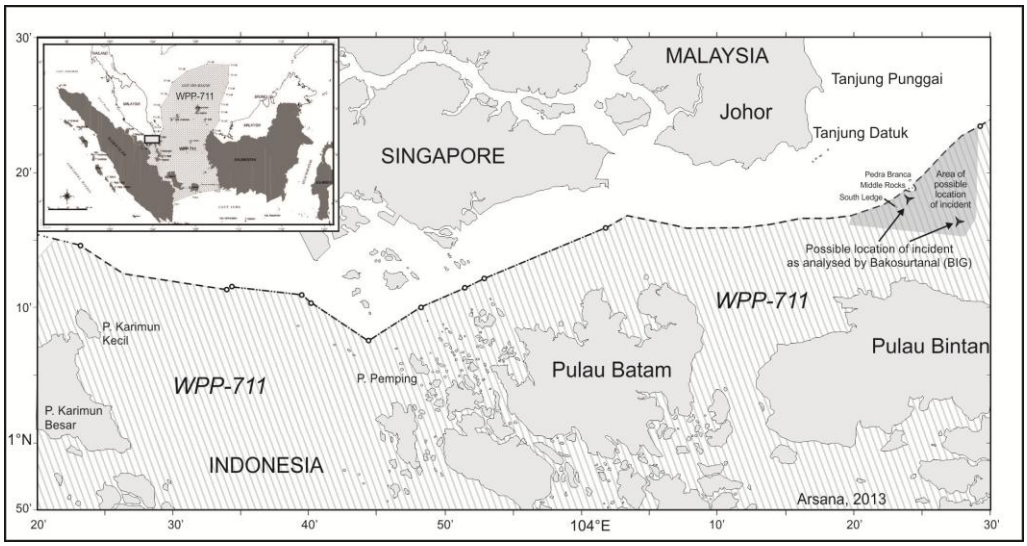

Figure 7.4. Part of WPP Map Pursuant to MMAF's Regulation Number 1 of 2009[1192]

From a unilateral Indonesian perspective, the incident took place within Indonesia's waters since it took place likely to be within WPP-711. The MMAF's Regulation Number 1 of 2009 concerning WPP is generally understood by officials of the MMAF, in particular, as a confirmation of Indonesia's territory.[1193] Accordingly, it is

[1190] Dishidros. 2009. Map of fisheries management area of the Republic of Indonesia [in Indonesian]. Jakarta: MMAF.
[1191] See above note 1135
[1192] Illustration by the author.
[1193] A Discussion forum with several officials of MMAF was conducted at ANCORS, University of Wollongong on 8 may 2012. It confirms most of the participants did not have clear understanding that the several outer limits of WPPs are in fact unilateral claim of Indonesia, instead of agreed boundary lines.

understandable that many parties in Indonesia, including government officials, simply understand that WPP is indisputably part of Indonesian waters. Consequently, many will view that the incident undoubtedly took place within Indonesian territorial sea.

7.4.2 The Absence of Maritime Boundaries and Overlapping Claims

It is worth emphasising that Indonesia and Malaysia have yet to agree on maritime boundaries (territorial sea) in the Singapore Strait. One of the key reasons for the absence of delimitation among the three littoral States in the eastern Singapore Strait is the long-standing three-decades-old dispute between Malaysia and Singapore regarding the sovereignty over three geographical features (Pedra Branca, Middle Rock, and South Ledge) and associated (see subsection 7.2.2). Not until the case was decided by the ICJ in 2008[1194] could the littoral States start negotiations on maritime boundary delimitation. Maritime entitlement and thus maritime delimitation could not be decided whilst sovereignty over these three features remained uncertain. This arises from the principle of the 'land dominating the sea'.[1195] After the sovereignty case was decided by the ICJ, Malaysia, Singapore and Indonesia intensified negotiations on maritime boundary delimitation.

Even though no maritime boundaries have been agreed upon, Indonesia and Malaysia both have interests in the waters off Tanjung Berakit or Singapore Strait in general. These interests are, among other things, economically motivated to explore and utilise maritime natural resources. In addition, as previously noted, both Indonesia and Malaysia have made their own maritime claims or unilateral claims (see subsections 7.3.1 and 7.3.2) in the area although final agreement is yet to be reached. These unilateral claims generate an overlapping area or claim between Indonesia and Malaysia in the Singapore Strait which requires delimitation. This uncertainty and overlapping maritime claims seemed to be the cause or at least contribute to the incidents of 13 August 2010.

On the 1979 map, Malaysia's claim in the maritime eastern part of the Singapore Strait (around Tanjung Berakit) is depicted by dashed lines as illustrated in Figure 7.2. As previously mentioned, the claim line encloses Pedra Branca, Middle Rocks and South Ledge as well as waters around the three features. From Malaysia's perspective, all of

[1194] See above note 1147.
[1195] North Sea Continental Shelf Cases, 1969 ICJ Rep. 51, para. 96; Aegean Sea Continental Shelf Case, 1978 ICJ Rep. 36, para. 86; Qatar v. Bahrain, 2001 ICJ Rep. 97, para. 185

the waters enclosed by its 1979 claim line in the Singapore Strait are part of Malaysia's territorial sea. This appears to be the reason why Malaysian media reported that the Malaysian fishermen the Indonesian officials apprehended during the 13 August 2010 incident were fishing in Malaysian waters. An article in *The Star Online*, for instance, asserted that the fishermen were in the waters off Middle Rocks, which apparently according to the 1979 map is part of Malaysian waters.[1196]

By overlaying the unilateral claims of Indonesia and Malaysia, it is clear that both unilateral claims generate overlapping areas in the Singapore Strait. Malaysia's 1979 map and Indonesia's official map were used to analyse each party's unilateral claims. Both unilateral maritime claims were then combined to produce a new map showing the overlapping claims of the two States. The Indonesian official map was overlaid with Malaysia's 1979 map using the principles and functions in geographic information system (GIS)[1197] to generate a new map as illustrated by Figure 7.5.[1198] At the western side of the Singapore Strait, unilateral claims of Indonesia and Malaysia generate an overlapping area of around 40 square kilometres. It is intriguing to observe that Malaysia's unilateral claim as depicted on its 1979 map in fact goes beyond Indonesia's then defined archipelagic baseline segment (see Figure 7.5). This may be seen as Malaysia's opposition of Indonesia's archipelagic baselines, a concept which at that time was not yet internationally recognised. At the eastern side of the Singapore Strait, the two respective claims generate an area of overlapping claims of about 170 square kilometres. Figure 7.5 illustrate overlapping claims between Indonesia and Malaysia in the Singapore Strait by overlaying their respective claims.

[1196] *The Star Online*. 2010. "Seven fishermen freed", accessed from <http://thestar.com.my/news/story.asp?file=%2F2010%2F8%2F18%2Fnation%2F6876092&sec=nation> on 20 August 2010.

[1197] Simply speaking, GIS refers to a computer-based technology for retrieving, storing, and organizing data based on its location on a map. For further explanation on GIS, refer to, for example, Longley, Paul A., Michael F. Goodchild, David J. Maguire, and David W. Rhind. 2001. *Geographic information systems and science*. New York: John Wiley and Sons Ltd.

[1198] Technically speaking, the process involves geo-registration of coordinates and geodetic datum unification into a widely used geodetic datum called WGS 1984 datum. Put simply, geodetic datum is a reference from which measurements are made so that position can be expressed in coordinates. It was then followed by overlaying process to identify overlapping claims. The process was carried out with the assistance of GIS software called CARIS LOTS™.

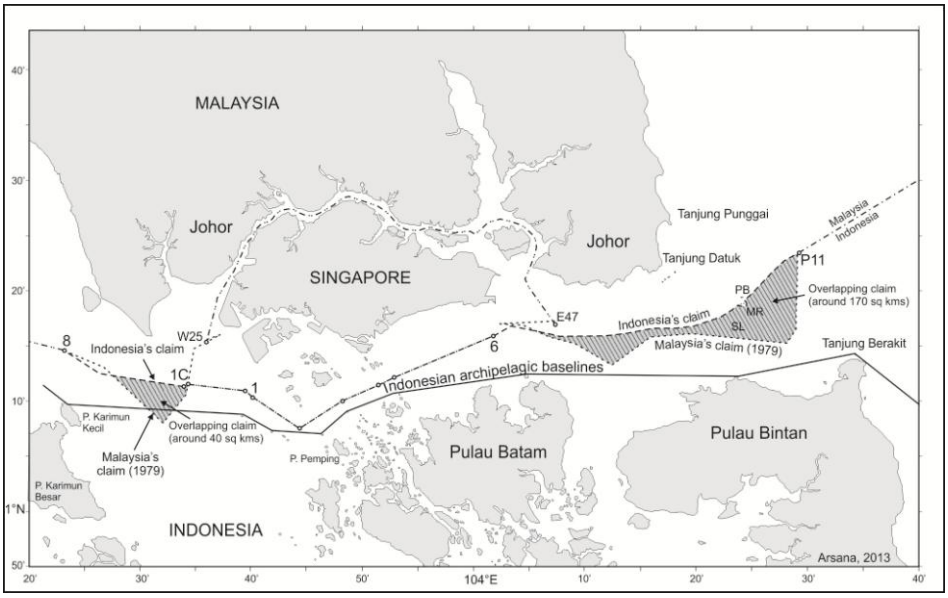

Figure 7.5 Part of Malaysia's 1979 Map Depicting Its Claim in the Waters off Tanjung Berakit (the Singapore Strait)[1199]

In responding to the 2010 incident, the Indonesian Minister of Foreign Affairs, Dr. Marty Natalegawa, asserted that both Indonesia and Malaysia base their arguments and action on their unilateral claims.[1200] In the press release, Dr. Natalegawa stated, in Bahasa Indonesia, that "our claim is based on the 349 Map of 2009 and it clearly depicts our claim line. Meanwhile, Malaysia has also advanced its claim based on a map published in 1979. It is worth noting that the two maps are not in an agreement and there is overlapping area."[1201] Dr. Natalegawa further asserted that "we all, in our diplomacy and military activities, act based on our claim."[1202] In this case, Dr. Natalegawa was aware of unilateral claims of both States and Indonesia, in particular, has taken steps to strengthen the claim. Accordingly, sentences like "it is undisputable that the area is part of our territory" or "we have had indisputable sovereignty over the area since time immemorial" are usually used in public statements.[1203] These expressions or statements are common in order to strengthen each party's position in diplomacy. For instance, in actual negotiations, those asserting statements serve as

[1199] Illustration by the author.
[1200] Press Conference of the Indonesian Minister of Foreign Affairs regarding Indonesia-Malaysia issues. See audio record at <http://www.kemlu.go.id/Pages/Audio.aspx?IDP=39&l=id>, on 18 August 2010.
[1201] See above note 1200.
[1202] See above note 1200.
[1203] Similar statement can be found in note verbals by China and Vietnam to the Secretary General of the UN regarding territorial dispute in the South China Sea in relation to submission of extended continental shelf by Vietnam. Available at <http://www.un.org/Depts/los/clcs_new/submissions_files/submission_vnm_37_2009.htm> accessed on 20 May 2011.

supporting evidence that a State is consistent and persistent with its unilateral claim. This, in turn, enables a State to maintain its position with strong arguments on the negotiating table.

7.4.3 Geospatial Analysis on Possible Incidents around Overlapping Areas

It is clear from previous discussion that the unilateral claims of Indonesia and Malaysia generate overlapping areas in the Singapore Strait which contributed to the 2010 incident. It has been concluded that the 2010 incident took place in overlapping areas between Indonesia and Malaysia. This is only one possibility of location where an incident may take place. In such a busy water way as the Singapore Strait, incidents may take place almost anywhere. This section provides an analysis regarding possibilities of incidents in the Singapore Strait in relation to existing maritime boundaries and maritime claims in the region. Based on this integrated depiction of rival maritime claims, the area of overlapping claims is revealed within which it is understood that the 2010 incident involving fishing vessels and enforcement authority vessels were located. Figure 7.6 includes distinct areas labelled A, B, C, and D.

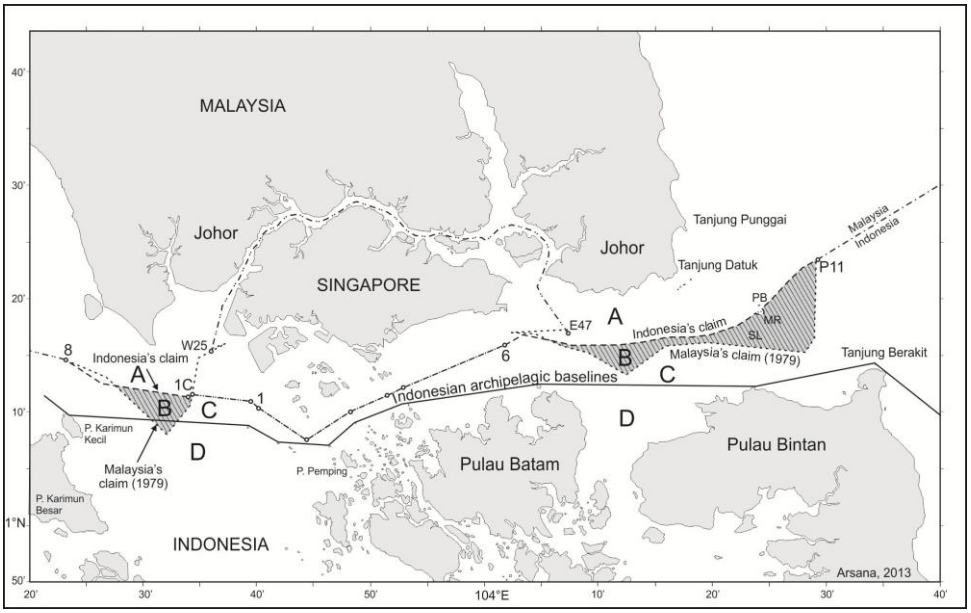

Figure 7.6 A Composite Map by Combining Indonesia's 2009 and Malaysia's 1979 Maps[1204]

The location labelled A is safe and legal for Malaysia's fishermen since it is within Malaysia's claim and is beyond what Indonesia claims. Meanwhile, the location labelled C and D are also safe and legal for Indonesia's fishermen since they fall within

[1204] Analysis and Illustration by the author.

Indonesia's claim and are beyond Malaysia's claim. If, for some reason, Malaysian fishermen enter area C or Indonesian fishermen enter area A, it may be considered an encroachment viewed from the respective unilateral claims of Indonesia or Malaysia. Under a different scenario, infringement is more obvious if Malaysian fishermen enter Indonesia's archipelagic waters within Indonesia's archipelagic baselines (area D). Complications will arise when fishermen from either Malaysia or Indonesia enter area B, which is the maritime area claimed by both States. Indonesian fishermen entering into area B will undoubtedly be considered as an infringement by Malaysia's patrolling officials. Likewise, Indonesia's patrolling officials will also declare that Malaysian fishermen have committed a border crossing if they enter area B. In such a situation, clashes and tensions can be avoided if Indonesia and Malaysia implement a common standard operational procedure in the overlapping/disputed area. Such provisional agreement is important before the two States agree a final maritime delimitation.

It is important for the parties in question to understand the aforementioned scenarios. Unilateral claims are commonly asserted by any sovereign State in areas where maritime boundaries are pending. It is understandable that the respective parties will seek to strengthen their claims by enhancing their presence through the conduct of activities, such as fishing and maritime law enforcement activities, in disputed areas. However, a clear understanding of issues arising out of unilateral claims and agreed boundaries, for example, is essential. Adequate understanding of the issues will help officials in the field to make good decisions, especially when incidents take place. For instance, a patrolling officer will be able to treat fishermen better and with care, instead of forcefully apprehending them. This understanding is also important in the implementation of provisional agreements such as the 2012 MoU between Indonesia and Malaysia (see subsection 7.5.2).

7.5 Maritime Delimitation Efforts in the Singapore Strait

As previously mentioned in Chapter 4 (section 4.5), there have been two maritime boundary agreements involving Indonesia and Singapore in the Singapore Strait. The two maritime boundaries, which were signed in 1973 and 2009 respectively (see Chapter 4, section 4.5), almost complete maritime boundaries between Indonesia and Singapore. The next step is to continue the maritime boundary line eastward and link it with existing maritime boundary agreed by Indonesia and Malaysia in 1969 (see Chapter 4, section 4.4). The line also needs to be continued westward to link it with

existing boundary line in the Malacca Strait between Indonesia and Malaysia (see Figure 7.2). The following subsections discuss ongoing process of maritime delimitation including negotiation and provisional agreements if any.

7.5.1 Ongoing Negotiations

Negotiations between Indonesia and Malaysia concerning maritime delimitation have been taking place intensively since 2005. At the time of writing, there have been 25 negotiations (technical meetings) between Indonesia and Malaysia discussing all pending maritime boundaries in four different locations: Malacca Strait, Singapore Strait, South China Sea and Sulawesi Sea.[1205] In the case of the Singapore Strait, treatment of archipelagic baselines of Indonesia in the delimitation is one of the main issues to discuss. In particular, the choice of basepoint to basepoint or basepoints to baselines method in delimitation is an important topic to agree on before proceeding to the actual delimitation.[1206] There have been several developments during the negotiation meetings that are important to achieve final solution of delimitation. In one of the sixteen meetings, for example, Indonesia and Malaysia attempted to identify potential agreement compromising unilateral position/claim of both States.[1207] This implies that the two parties attempted to find a negotiated solution between two respective claims of Indonesia and Malaysia. Unfortunately, there is no further update available for public consumption.

While the larger part of the undelimited boundaries in the Singapore Strait falls within overlapping maritime area of Indonesia and Malaysia, Singapore remains a key party to the completion of the delimitation. Since Singapore has, since the ICJ's 2008 decision, had its sovereignty over Pedra Branca confirmed whilst Malaysian sovereignty over Middle Rocks has likewise been clarified,[1208] maritime delimitation between Pedra

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[1205] Information on the development of maritime boundary negotiation is available through Press Releases of the Indonesian Ministry of Foreign Affairs, which are available through <http://www.kemlu.go.id/Pages/PressRelease.aspx>.

[1206] Limited information was obtained from Centre for Boundary Mapping of Geospatial Information Board (previously known as Bakosurtanal).

[1207] MFA, 2010, Press Release No. 183/PR/X/2010/53: The 16th Technical Meeting on Maritime Boundaries between Indonesia and Malaysia is to take place in Kuantan, Malaysia on 13-14 October 2010. Available at <http://www.kemlu.go.id/Pages/PressRelease.aspx?IDP=1011&l=id> on 20 April 2012.

[1208] Even though the sovereignty over South Ledge has yet to define, it can be suggested, as the nearest above high-tide territory to the LTE is Middle Rocks under Malaysian sovereignty, on which South Ledge depends for its capacity to generate maritime claims consistent with Article 13 of the LOSC, that Malaysia may well have the stronger claim over this feature.

Branca and Middle Rocks is now required, which is dealt with by Malaysia and Singapore. In addition, there are potential trijunction points among Indonesia, Malaysia and Singapore to settle for the completion of their maritime boundaries.

Singapore and Malaysia have been collaborating closely concerning Pedra Branca, Middle Rock and South Ledge as stated in a joint-statement 13 February 2013.[1209] It was stated that both States has established a "Malaysia-Singapore Joint Technical Committee on the Implementation of the ICJ Judgment on Pedra Branca, Middle Rocks and South Ledge (MSJTC), which has held six meetings".[1210] Both States have also completed "Joint Survey Works in and around Pedra Branca and Middle Rocks", which is an essential step prior to moving into maritime boundary delimitation in the Singapore Strait.[1211] Both States are ready to proceed with maritime boundary negotiation which commences in 2013.[1212]

It is understood that maritime boundary negotiation is confidential in nature so there is not much information available for public consumption. One point that is likely to be considered in maritime boundary negotiations between Malaysia and Singapore is the status of Pedra Branca or Batu Puteh. It is not surprising if Singapore proposes that Pedra Branca is to be recognised as a full island which according to the LOSC is entitled to full suite of maritime zones (territorial sea, contiguous zone, EEZ and continental shelf).[1213] This proposal is surely advantageous for Singapore since it may enable Singapore to claim more than 12 nautical miles of territorial sea. On the other hand, Malaysia might not agree that Pedra Branca is to be given a full status of an island as it will affect significantly, which is disadvantageous to Malaysia, the maritime boundaries between the two States in the Singapore Strait.

Another possible issue between the two States is the sovereignty over South Ledge. ICJ, in keeping with its earlier decision in the *Qatar/Bahrain Case,*[1214] noted that it was not yet clear as a matter of international law whether LTE, can be subject to a claim to

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[1209] Joint Statement By Prime Minister Lee Hsien Loong and Prime Minister Dato'Sri Mohd Najib Tun Abdul Razak at the Singapore-Malaysia Leaders' Retreat in Singapore on 19 February 2013, available at <http://www.mfa.gov.sg/content/mfa/media_centre/press_room/pr/2013/201302/press_20130219_01.html>, on 28 July 2013.
[1210] See above note 1209.
[1211] See above note 1209.
[1212] *Borneo Post Online*, 2013, Talks soon on maritime boundary with Singapore, available at <http://www.theborneopost.com/2013/07/11/talks-soon-on-maritime-boundary-with-singapore/>, on 24 July 2013.
[1213] LOSC, Article 121.
[1214] *Qatar/Bahrain Case*, see above note 385.

sovereignty. Even though the LTE is closer to Middle Rocks (Malaysia), Singapore is clear with its position that the sovereignty over South Ledge can only be determined by a "proper process of maritime boundary delimitation between Malaysia and Singapore."[1215]

As previously mentioned, Indonesia and Singapore have almost completed maritime boundary delimitation between them. However, there are short segments in the west and east that need to be delimited and both States are, at the time of writing, undergoing negotiation. At the time of writing, there have been seven rounds of meetings between Indonesia and Singapore with the latest one in Singapore on 2-3 July 2013.[1216] Apparently Indonesia and Singapore focus on the Terms of Reference and other relevant issues relating to the territorial sea boundary between them in the Singapore Strait. Two pending segments are the one to continue the 2009 segment westward and to other one to continue the 1973 segment eastward. Both segments are important to define trijunction points connecting boundary segment of Indonesia-Singapore, Indonesia-Malaysia, and Malaysia-Singapore. The two trijunction points will need to be defined trilaterally by involving Indonesia, Malaysia and Singapore.

7.5.2 Provisional Agreements

It appears that the possibility of incidents involving fishermen in overlapping areas has been well recognised by both Indonesia and Malaysia. This conclusion can be reached on the basis of the 27 January 2012 memorandum of understanding (MoU) between the two States in respect of the common guidelines for maritime law enforcement agencies of both States concerning treatment of fishermen in overlapping maritime areas (see Chapter 6, subsection 6.5.4).[1217] The 2012 MoU mainly governs that fishermen from

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[1215] Press Statements and Articles: Letter from Singapore High Commission to the New Straits Times, available at <http://www.mfa.gov.sg/content/mfa/overseasmission/kuala_lumpur/press_room/2009/200903/press_200903_2.html>, on 27 July 2013.

[1216] Joint Statement By the Ministry of Foreign Affairs, Republic of Indonesia and the Ministry of Foreign Affairs, Republic of Singapore on the Technical Discussions on Maritime Boundaries Between the Republic of Indonesia and the Republic of Singapore in the Eastern Part of the Singapore Strait , available at <http://www.mfa.gov.sg/content/mfa/media_centre/press_room/pr/2013/201307/press_20130703_01.html>, on 28 July 2013.

[1217] Memorandum of Understanding between The Government of the Republic of Indonesia and the Government of Malaysia in Respect of the Common Guidelines concerning Treatment of Fishermen by Maritime Law Enforcement Agencies of Malaysia and the Republic of Indonesia (hereinafter referred to as Indonesia-Malaysia 2012 MoU). Copy on the MoU is obtained from the Indonesian Maritime Security Coordinating Board (Bakorkamla) for limited access only.

Indonesia or Malaysia entering the overlapping maritime area should be treated appropriately and requested to "leave the area".[1218] Particularly for traditional fishermen, both countries agreed to assist lost fishermen to return to waters of their respective countries. The traditional fishermen, according to the MoU should not be caught or punished, except for those conducting illegal fishing and performing activities involving explosive and chemical materials.[1219] This is to avoid conflict between Indonesia's and Malaysia's authority performing their duties in the field. Should this MoU be implemented properly, both States can expect that there are no more fishermen mistreated around maritime boundary areas. As specifically defined in the MoU, the guidelines are applicable to all areas where Indonesia and Malaysia have yet to finalise the settlement of their maritime boundaries.[1220] The MoU therefore has the character of a conflict management or avoidance mechanism pending the delimitation of maritime boundaries between the two States. In this case, the MoU covers pending maritime boundaries in the Malacca Strait (northern and southern part), Singapore Strait (waters off Tanjung Berakit), South China Sea, and Sulawesi Sea.

7.6 Proposing Maritime Delimitation in the Singapore Strait

This section proposes maritime delimitation in the Singapore Strait by implementing the three-stage approach as outlined in Chapter 1 (see also Chapter 2, subsection 2.6.5 and Chapter 6, subsection 6.6.7). The first step is to construct a provisional delimitation line based on equidistance followed by the second step of adjusting the provisional line by considering relevant circumstances. The third step is to evaluate whether or not the adjusted line causes disproportionality regarding the maritime areas assigned to both parties. This subsection also discusses potential baselines used in delimitation and the potential role of Pedra Branca, Middle Rocks, and South Ledge in the delimitation.

7.6.1 Baselines Definition

As previously mentioned, baselines are critical in maritime claims and boundary delimitation (see Chapter 2, section 2.3). In order to achieve maritime delimitation in the Singapore Strait, the use of different types of baselines of Indonesia, Malaysia and Singapore need to be taken into consideration.

[1218] Indonesia-Malaysia 2012 MoU, Article 3.
[1219] Antara, 2012. RI and Malaysia Agree to Solve the Fishermen Problem through Diplomacy. Available at <http://www.antaranews.com/en/news/79547/ri-and-malaysia-agree-to-solve-the-fishermen-problem-through-diplomacy> on 12 June 2012.
[1220] Indonesia-Malaysia 2012 MoU, Article 5.

As discussed in Chapter 3, Indonesia is an archipelagic State which is entitled to employing archipelagic baselines.[1221] Indonesia has also deposited the coordinates of its completed archipelagic baselines to the United Nations (see Chapter 3, section 3.9). Accordingly, Indonesia's archipelagic baselines as listed in Government Regulation No. 38/2002 and revised by Government Regulation No. 37/2008 are used in this research. Basepoints forming relevant baselines segment for the purpose of this delimitation are TD.193, TD.194, TD.195 and D.001 for the eastern side of the Singapore Strait. For the western side of the Strait, two segments are relevant, which connect three basepoints: TD.188, TD.189 and TD.190A as illustrated by Figure 7.7. Even though Indonesia is entitled to implement archipelagic baselines in maritime boundary delimitation, the possibility of the use its normal baselines was also explored to analyse alternative delimitation options in the region.

Meanwhile, Singapore is not an archipelagic State so it is not entitled to the use of archipelagic baselines. In addition, Singapore has never published any type of baselines to be recognised by the international community. Therefore, in keeping with the discussion in Chapter 2 (section 2.3), Singapore is assumed to have used normal baselines. Apart from using normal baselines around the main island of Singapore and features in its immediate vicinity, Singapore can also use the normal baselines of Pedra Branca as basepoints relevant to its maritime claims. Pedra Branca, being an island or rock is also territory which requires baselines to define maritime zones of jurisdiction and the default position is normal baselines.

With regard to Malaysia, the situation is arguably less clear. While, in principle, normal baselines would appear to apply to Malaysia because it is not an archipelagic State and has never officially published or identified the locations of any other type of baselines, this does not appear to be the case. According to Malaysia's 2006 Act on Baselines of Maritime Zones,[1222] Malaysia may designate normal and straight baselines if necessary.[1223] This implies that it is possible for Malaysia to designate baselines other than normal around the Singapore Strait even though there is no information/regulation specifically declaring Malaysia's baselines. The fact that Malaysia also depicts straight baselines in its submission to the UN CLCS of the outer limits of its continental shelf

[1221] LOSC, Article 47.
[1222] Act 660, see above note 957.
[1223] Act 660, Article 5 (2).

beyond 200 nautical miles strengthens this likelihood. The Act 660, on the other hand, only provides broad and open statement that Yang di-Pertuan Agong may declare geographical coordinates of basepoints forming Malaysia's baselines (see Chapter 6, subsection 6.3.2.1). It is not easy to tell whether or not Malaysia will designate straight baselines in the Singapore Strait. Drawing straight baselines connecting the mainland of the peninsula and Middle Rocks, for example, does not appear to be an acceptable option as it will not represent the geographical configuration of its coast. One possible option is to draw straight baselines connecting fringing island in the immediate vicinity of Tanjung Datuk (see Figure 7.7).

Malaysia's normal baselines, if used, are located along the coastline of Johor and also several small islands in the vicinity of Johor. Malaysia can also use Middle Rocks as a new basepoint as the sovereignty over it has been awarded to Malaysia by ICJ.[1224] Geographically speaking, Middle Rocks may have a significant role in maritime delimitation between Singapore and Indonesia, and also for territorial sea delimitation between Malaysia and Singapore around Pedra Branca and Middle Rocks. Figure 7.7 illustrates relevant baselines in the delimitation of maritime boundary in the Singapore Strait and three geographical features.

In the case of the western side of the Singapore Strait, Malaysia's baselines along the southern coast of western part of the peninsula are relevant for there is a short segment of pending boundary connecting point 8 of Indonesia-Malaysia 1970 boundary agreement and point 1C of Indonesia-Singapore 2009 boundary agreement. Normal baselines are certainly one possible option for Malaysia in this area. However, studies have revealed that Malaysia's straight baselines can be inferred from its 1979 Map. The Geographer, for example, drew possible straight baselines of Malaysia, which was also considered in this research, as depicted on Figure 7.7 below.

[1224] Pedra Branca Case, see above note 73.

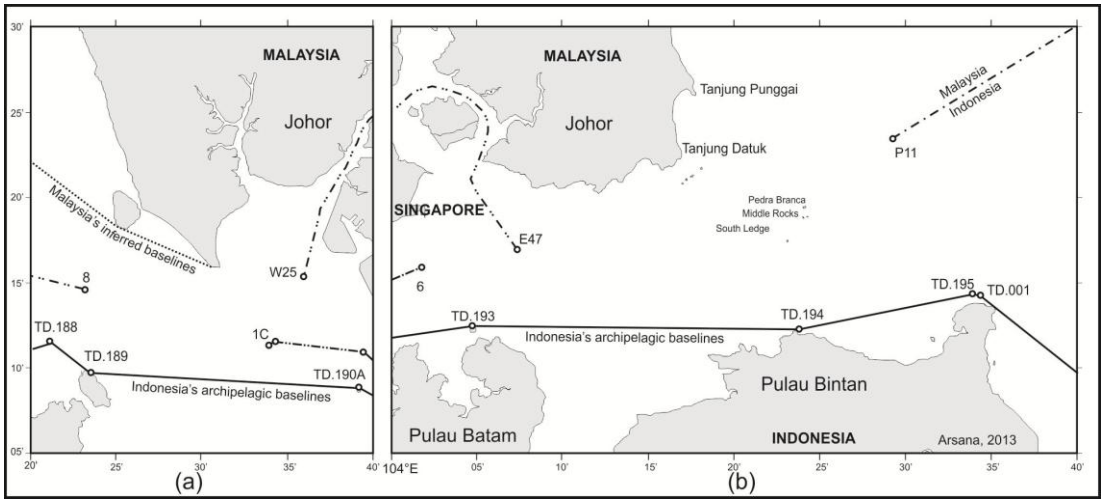

Figure 7.7 Singapore Strait – Baselines, Basepoints and Islands/Rocks/LTEs[1225]

7.6.2 The Potential Roles of Pedra Branca, Middle Rock and South Ledge in Maritime Delimitation in the Eastern Singapore Strait

Pedra Branca's maximum length is 137 m and its width is 60 m. It is around 8,560 m^2 during *low tide*, situated at 1°19'48' N and 104°24'27'' E.[1226] The feature is located at a distance of 24 nautical miles from the nearest point of Singapore, 7.7 nautical miles from Johor (Malaysia) and 7.6 nautical miles from Pulau Bintan (Indonesia).[1227] Pedra Branca is Portuguese for "*white rock*". This might be the reason why Malaysians call it "*Batu Puteh*" which means "white rock".[1228] A lighthouse called Horsburgh[1229] was built on Pedra Branca between March and October 1851.[1230]

Close to Pedra Branca are Middle Rocks and South Ledge. Middle Rocks are located around 0.6 nautical miles to the south of Pedra Branca and consists of two small rocks which always appear during high tide, 0.6 to 1.2 metre above sea level. Those two rocks are 250 m from each other. Meanwhile, South Ledge is a low tide elevation (LTE) which only appears during low tide at a distance of 2.2 nautical miles to the southwest of Pedra Branca. The geographical setting of Pedra Branca, Middle Rocks, and South Ledge is illustrated in Figure 7.7.

Sovereignty of South Ledge, as previously mentioned, was not awarded to any parties by the ICJ. Considering it is closer to Middle Rocks, which belongs to Malaysia, it is

[1225] Illustration by the author.
[1226] Pedra Branca Case, see above note 73, para. 16.
[1227] Pedra Branca Case, see above note 73, para. 16.
[1228] Pedra Branca Case, see above note 73, para. 17.
[1229] Pedra Branca Case, see above note 73, para. 17.
[1230] Pedra Branca Case, see above note 73, para. 25.

unsurprising if South Ledge falls within Malaysia's territory for ICJ decided that "sovereignty over South Ledge" "belongs to the State in the territorial waters of which it is located."[1231] This is supported by previous jurisprudence stating that "a coastal State has sovereignty over low-tide elevations which are situated within its territorial sea, since it has sovereignty over the territorial sea itself [...]".[1232]

Considering the geographical setting and distance among these three States, they need to delimit their territorial sea since maximum distance separating them is no more than 24 nautical miles from each other. Article 15 of LOSC states that if there are two or more opposite or adjacent States with overlapping claim of territorial sea, "neither of the two opposite or adjacent States is entitled to extend its territorial sea beyond the median line" unless either State involved agrees otherwise, or due to the existence of "historic title or other special circumstances" (see Chapter 2, section 2.6). In other words, a method acceptable for delimitation among these three States is median line or equidistance line, unless there are special circumstances. However, Pedra Branca, Middle Rock and South Ledge can be viewed as small islands/rocks that may cause disproportionate effect to the delimitation. This might be considered as 'special circumstance' leading to the retreat from the use of equidistance line.

Options of delimitation have been explored by implementing the three-stage approach as detailed below. It is worth noting that the three-stage approach is generally applied in the delimitation of EEZ and continental shelf and is not meant for territorial sea delimitation. However, the territorial sea delimitation, which is mainly based on equidistance principles,[1233] is similar to the three-stage approach which begins with the construction of a provisional line based on equidistance principle. In line with this, in the *Cameroon/Nigeria Case*, for example, the ICJ stated explicitly that:

> The Court has on various occasions made it clear what the applicable criteria, principles and rules of delimitation are when a line covering several zones of coincident jurisdictions is to be determined. They are expressed in the so-called equitable principles/relevant circumstances method.[1234]

[1231] Pedra Branca Case, see above note 73, para. 299.
[1232] See, Maritime Delimitation and Territorial Questions between Qatar and Bahrain (Qatar v. Bahrain), Merits, Judgment, I.C.J. Reports 2001, p. 101, para. 204.
[1233] LOSC, Article 15.
[1234] *Land and Maritime Boundary between Cameroon and Nigeria* (Cameroon v. Nigeria; Equatorial Guinea intervening), [2002] ICJ Reports, 303, at para. 288.

The Court went on to note that this method is "very similar to the equidistance/special circumstances" method applicable in delimitation of the territorial sea.[1235] Strict equidistance line was drawn as a provisional line followed by its adjustment. Relevant factors have been taken into consideration in adjusting the provisional line. Boundary lines are drawn eastward from Point 6, the eastern most point in the Indonesia-Singapore 1973 agreement as the starting point.

As for South Ledge, delimitation will define the sovereignty over it. In this regard, the ICJ views that South Ledge is located within the apparently overlapping territorial sea claimed from the mainland of Malaysia, Pedra Branca and Middle Rocks.[1236] Accordingly, delimitation is required to define which territorial sea belongs to which State/feature to then define within whose territorial sea South Ledge is located. Meanwhile, the ICJ was not asked to carry out delimitation between Malaysia and Singapore so that the Court was not able to determine which part or territorial sea in the area belongs to Singapore or Malaysia.[1237] Consequently, it was undecided within whose territorial sea South Ledge is located. This is apparently the reason why the Court did not award sovereignty over South Ledge to any party in question.

In order to define the territorial sea that 'contains' South Ledge, delimitation between Indonesia and Malaysia was performed by ignoring South Ledge. These options of delimitation help the definition of sovereignty over South Ledge. After the definition of sovereignty, further delimitation between Indonesia and Malaysia or between Singapore and Malaysia or between Indonesia and Singapore can be performed by taking South Ledge into consideration. In summary, even though South Ledge is not taken into account in initial delimitation, since the delimitation will determine its sovereignty, eventually its location may be considered in the final delimitation.

7.6.3 Tri-Junction Points in the Singapore Strait

Tri-junction points (TJPs) or tripoints are common points connecting maritime boundary lines between Indonesia and Singapore,[1238] between Indonesia and Malaysia,[1239] and between Malaysia and Singapore.[1240] This research attempts to define

[1235] *Ibid.*
[1236] Pedra Branca Case, see above note 73, para. 297.
[1237] Malaysia-Singapore 2003 Special Agreement, Article 2.
[1238] See, The Geographer, 1974.
[1239] See, The Geographer, 1970.

relevant tri-junction among the three States by technically intersecting three boundary lines: Indonesia-Singapore, Indonesia-Malaysia, Malaysia-Singapore. At some stage, Indonesia, Malaysia and Singapore will need to conduct a three-party negotiation to define common TJPs among them.

Apparently, there will be three tri-junction points in the Singapore/Malacca Strait involving Indonesia, Malaysia and Singapore. One tri-junction point is at the western side of the Singapore Strait and two others are at the eastern side of the Strait. At the western side, the tri-junction point will be a meeting point of the elongation of three existing boundary lines. The three lines are the 1970 Indonesia-Malaysia territorial sea boundary in the southern part of the Malacca Strait (see Chapter 4, section 4.4),[1241] Malaysia-Singapore territorial sea agreed in 1995,[1242] and Indonesia-Singapore territorial sea agreed in 2009 (see Chapter 4, section 4.4). Three existing points forming the three maritime boundary lines area point 8 of Indonesia-Malaysia 1970 agreement, point W25 of Malaysia-Singapore 1995 agreement and point 1C of Indonesia-Singapore 2009 agreement (see Figure 7.8 (a)). It appears that Point 1C is, or can serve as, the terminal point of Indonesia-Singapore territorial sea boundary in the western side of the Singapore Strait so it is closer to point W25 than it is to point 8. Therefore, even if Indonesia and Singapore need to continue the 2009 line westward, it will not be a long segment. On the other hand, point W25 is reasonably far from point 1C at a distance of more than four nautical miles. Accordingly, Malaysia and Singapore will have to negotiate an extension of the western end of their 1995 territorial sea southward from Point W25 toward a theoretical tri-junction point, which is apparently close to point 1C. Similarly, Indonesia and Malaysia will have to negotiate an extension of the southern end of their 1970 territorial sea eastward from point 8 toward the theoretical tri-junction point. It is clear that Indonesia and Malaysia will need to establish a reasonably long extension from point 8 for its distance to point 1C is more than 11 nautical miles.

At the eastern side of the Singapore Strait there are possibly two tri-junction points. The first one is in an area east of point 6 of Indonesia-Singapore 1973 boundary line and

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[1240] For a comprehensive discussion on tripoint issues in maritime boundary delimitation, see, Coalter G. Lathrop, 2005, Tripoint Issues in Maritime Boundary Delimitation in Colson, D.A. and Smith, R.W. (eds), *International Maritime Boundaries* Volume VI, Martinus Nijhoff Publishers, The Netherlands, 3305-3375.

[1241] See, The Geographer, 1973.

[1242] Agreement between the Government of Malaysia and the Government of the Republic of Singapore to Delimit Precisely the Territorial Waters Boundary in Accordance with the Straits Settlements and Johore Territorial Waters Agreement 1927.

south of point E47 of Malaysia-Singapore 1995 boundary line. Indonesia and Singapore need to negotiate the extension of their maritime boundary from point 6 eastward to reach a theoretical tri-junction point at a distance of around 5.5 nautical miles. Similarly, Malaysia and Singapore will also need to negotiate an extension of their 1995 boundary line southward from point E47 toward the theoretical tri-junction the distance of which is around 1 nautical mile.[1243] Figure 7.8 illustrates potential locations of tri-junction points in the Singapore Strait.

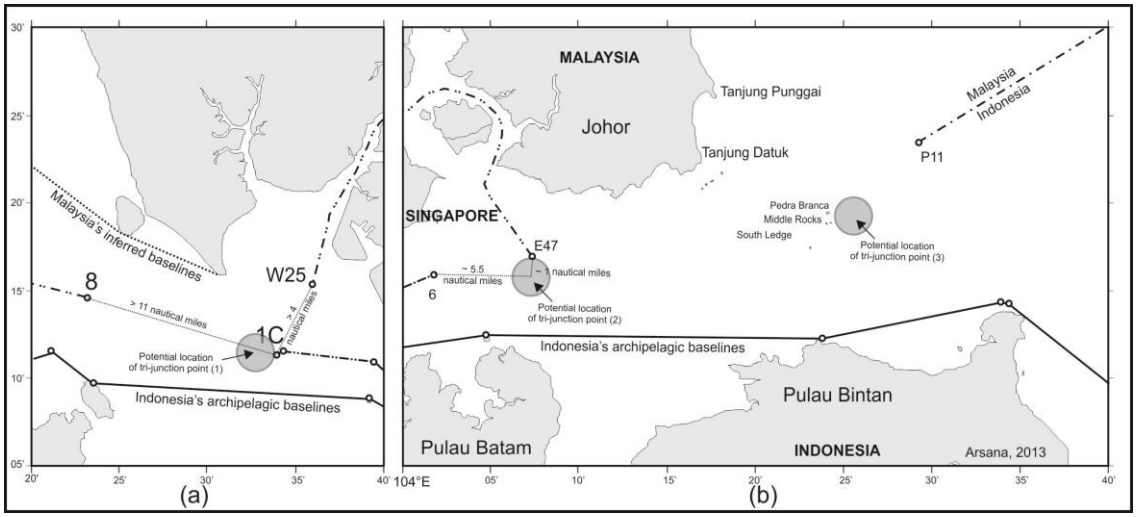

Figure 7.8 Possible Tri-junction Points in the Singapore Strait Involving Indonesia, Malaysia and Singapore[1244]

Another tri-junction point is an area east of Pedra Branca, a meeting point of Indonesia-Malaysia (Middle Rock) segment, Indonesia-Singapore (Pedra Branca) segment and Malaysia (Middle Rock)-Singapore (Pedra Branca) segment. The location of the potential tri-junction point will depend on the role of Pedra Branca, Middle Rock and South Ledge in maritime delimitation. Indonesia, judging from its forward position of maritime boundaries (unilateral claim) appears to give less than full effect to the three features so the potential tri-junction line is close to Pedra Branca. In this case, it may be located at around 0.3 nautical miles southeast of Pedra Branca (see Figure 7.8 (b)). The location of the potential tri-junction point can be as far as around eight nautical miles east of Pedra Branca.[1245]

[1243] The location of this potential tri-junction point has also been analysed by Beckman and Schofield, 2009, 23-24. See above note 1143.
[1244] Illustration by the author.
[1245] *Ibid.*

In summary, there are potentially three tri-junction points in the Singapore Strait involving Indonesia, Malaysia and Singapore. It appears that the definition of the one at the western side of the Singapore Strait is relatively more straight forward compared to the one at the eastern side of the strait, especially the tri-junction point east of Pedra Branca for the location will depend on the role of Pedra Branca, Middle Rocks and South Ledge in maritime boundary delimitation in the area.

7.6.4 Delimitation Options

As previously highlighted in section 7.6.2, territorial sea delimitation generally uses the principle of equidistance. However, this method was found similar to what is applied in the three-stage approach since this method also starts with the construction of a provisional line based on equidistance principle. Accordingly, for the purpose of this research, a three-stage approach is used as it is considered as the most recent trend as demonstrated in the decision by ICJ regarding maritime delimitation in the Black Sea case between Ukraine and Romania,[1246] and also in the maritime delimitation in the Bay of Bengal between Bangladesh and Myanmar.[1247] As discussed in an earlier part of this thesis (see Chapter 2, subsection 2.6.5) three steps in the three-stage approach have been employed to analyse maritime delimitation in the Singapore Strait. This subsection analyses the three steps, which starts by drawing provisional equidistance/median line followed by adjustment of the line by considering relevant factors. The final step is to conduct a disproportionality test to ensure equitableness of the result.

7.6.4.1 Provisional equidistance/median lines

As previously mentioned, the maximum width the Singapore Strait is less than 24 nautical miles so the delimitation is only for territorial sea (see subsection 7.2.1). As governed by the LOSC, territorial sea delimitation is pursuant to Article 15 which states that should the distance between two neighbouring States is less than 24 nautical miles then "neither of the two opposite or adjacent states is entitled to extend its territorial sea beyond the median line" unless either state involved agrees otherwise, or due to the existence of "historic title or other special circumstances".[1248] This confirms that equidistance or medial line has been accepted as one of the method in territorial sea

[1246] Black Sea Case, see above note 316.
[1247] Bay of Bengal Case, see above note 327.
[1248] LOSC, Article 15.

delimitation. However, it is not the only method permitted by LOSC as the delimitation can be affected by special circumstances.[1249]

In the western side of the Singapore Strait the construction of provisional median/equidistance line is apparently relatively straightforward for there are no small islands/rocks in an inconvenient position to serve as special circumstances. There are at least four options of provisional median lines to draw in the western side of the Singapore Strait as shown in Figure 7.9 (a). The first option (Option 1) is by considering Indonesia's archipelagic baselines and Malaysia's normal baselines. Secondly, a line can be drawn using Indonesia's normal baselines and Malaysia's normal baselines (Option 2). The third option (Option 3) is using normal baselines for both Indonesia and Malaysia and the last option is by using straight baselines for Malaysia and normal baselines for Indonesia. The last option is not depicted explicitly on Figure 7.9 (a) as it is a combination of Option 2 and Option 3. Figure 7.9 (a) illustrates different options of provisional median line in the western side of the Singapore Strait, as compared to unilateral claims made by Indonesia and Malaysia in Figure 7.9 (b).

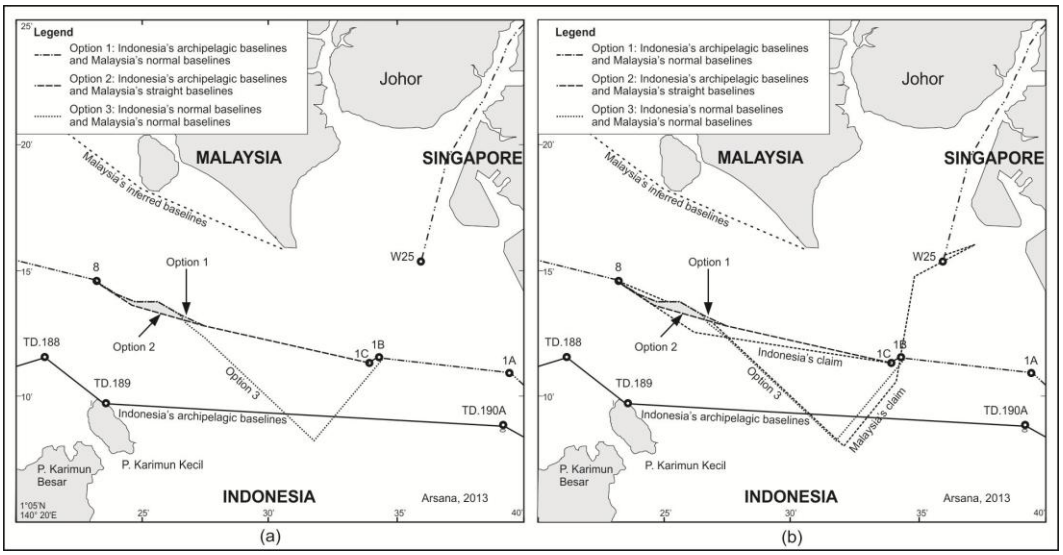

Figure 7.9 Options of Median Lines in the Western Side of the Singapore Strait[1250]

It is intriguing to observe that Indonesia's unilateral claim is not as advanced as the theoretical equidistance line shown in Figure 7.9 (b). It shows that Indonesia's unilateral claim lies further south compared to the theoretical median line between Indonesia and Malaysia so this unilateral position is not as advantageous for Indonesia compared to

[1249] LOSC, Article 15.
[1250] Illustration by the author.

what it could have claimed were it to implement the equidistance line principle. It is not certain, however, how Indonesia came up with this option in its unilateral claim. For its unilateral claimed declared in 1979, Malaysia apparently followed a median line constructed with Indonesia's normal baselines. Figure 7.9 (b) shows that the 1979 claimed line is consistent with the theoretical median line only with a small difference at the eastern side of the line where Malaysia's claim is slightly more advanced compared to the median line.

Out of the four possibilities of provisional median lines, Indonesia is likely to prefer option 1 which considers Indonesia's archipelagic baselines and Malaysia's normal baselines. On the other hand, Malaysia is highly likely to maintain its position as declared in 1979. It is worth noting that Indonesia's archipelagic baselines are designated pursuant to relevant provision in LOSC with objective criteria set out in Article 47. Therefore, the validity of Indonesia's archipelagic baselines can be objectively tested and no State has expressed its protest regarding Indonesia's baselines, especially the segments in the Malacca Strait. and have secured international recognition so the use of it is legally acceptable. In addition, Malaysia is also silent with regard to the deposit of Indonesia's archipelagic baselines to the United Nations (see Chapter 3, section 3.9), which can be inferred as an indirect support. While Malaysia could propose the use of Indonesia's normal baselines in delimitation, the result may be viewed as disadvantageous for Indonesia as the median line goes excessively southward beyond Indonesia's baselines segment connecting TD.189 and TD.190A. The southernmost point of such median line lies to the south of the baseline segment as illustrated in Figure 7.9 (b) which is certainly unacceptable to Indonesia. Therefore the use of a strict equidistance line by considering Indonesia's archipelagic baselines is an acceptable option for provisional median line. Malaysia may also be allowed to use its possible straight baselines even though Malaysia has yet to declare its straight baselines. Malaysia has indicated the designation of straight baselines if required.[1251] It is worth noting that Malaysia's straight baselines, should it decided to designate in the future, are based on Article 7 of LOSC, which is open to subjective interpretation while Indonesia's archipelagic baselines, as previously mentioned, are based on a more objective criteria pursuant to LOSC. Therefore, the use of Malaysia's potential straight baselines should not be viewed as to balance the use of Indonesia's archipelagic

[1251] See above note 1222.

baselines in maritime boundary delimitation between the two States. For the purpose of this study, option 2 is selected as the provisional median line to be analysed further in the next step.

In the eastern side of the Singapore Strait median/equidistance line can be drawn by ignoring Pedra Branca, Middle Rocks and South Ledge that located almost precisely in the middle of the Strait. However, ignoring small islands in maritime delimitation will not prevent such islands from claiming its entitlement of 12-nautical miles of territorial sea. In the case of the Singapore Strait, the width of which is less than 24 nautical miles in the entirety of the strait,[1252] ignoring the three islands will not make any difference compared to giving them full effect in delimitation. According only 12 nautical miles of territorial sea to Pedra Branca, Middle Rocks and South Ledge will eventually require proper delimitation with Indonesia since there will be overlapping entitlements of territorial sea.

For South Ledge in particular, it can be problematic since it is an LTE, sovereignty over which has yet to be defined. Firstly, delimitation is first required to define sovereignty over South Ledge so its role cannot be determined before delimitation.[1253] Secondly, it is understood that LTEs, when situated within territorial sea measured from a nearest mainland, can also be used as basepoint to claim more territorial sea.[1254] With this logic, an LTE can also affect maritime delimitation when such delimitation is required for territorial sea claimed from the LTE. Thus, South Ledge may be ignored in the initial step of generating provisional median line to define within which territorial sea it is located. Geospatial analysis by constructing median line between Indonesia and Middle Rocks (Malaysia) and between Middle Rocks (Malaysia) and Pedra Branca (Pedra Branca) shows that South Ledge falls within Middle Rocks' territorial sea. Accordingly, it is fair to say that the possibility that South Ledge belongs to Malaysia is reasonably high. Being an LTE, South Ledge is located within the territorial sea measured from the closest rock or island so that it can generate its own territorial sea. In other words, South Ledge can potentially affect maritime delimitation in the area (see subsection 7.6.2). Therefore, in constructing the provisional median line in the Singapore Strait, all three features were fully taken into consideration.

[1252] See above note 1167.
[1253] ICJ decides that "sovereignty over South Ledge" "belongs to the State in the territorial waters of which it is located." See, Pedra Branca Case, see above note 73, para. 299.
[1254] LOSC, Article 13.

There are four different equidistance line options explored, in terms of the use of baselines. Firstly, an option can be drawn with Indonesia's archipelagic baselines and Malaysia's normal baselines. The second option is with both normal baselines for Indonesia and Malaysia. Another option is with Indonesia's archipelagic baselines and Malaysia's possible straight baselines connecting fringing islands in the vicinity of Tanjung Datuk (see subsection 7.6.1). It is worth noting that Malaysia has yet to declare any type of baselines other than normal baselines but it has indicated the possibility of drawing straight baselines where possible as stated in Act 660.[1255] One last option in relation to the use of baselines is an option with possible Malaysia's straight baselines and Indonesia's normal baselines. However, it was found that the use of Malaysia's possible straight baselines as proposed above do not make any material difference compared to the use of its normal baselines. This is due to the fact that Malaysia's potential straight baselines segments are relatively short (see Figure 7.7). Figure 7.10 illustrates different options of median/equidistance line in the eastern side of the Singapore Strait.

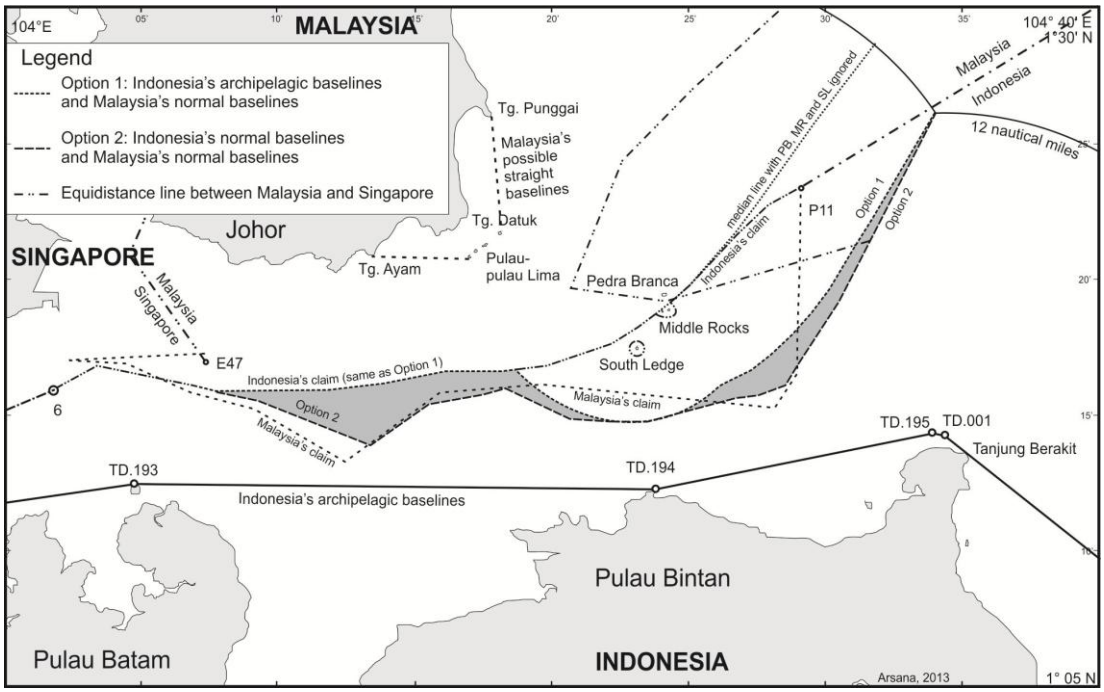

Figure 7.10 Options of Median Lines in the Eastern Side of the Singapore Strait[1256]

Option 1 in Figure 7.10 is a provisional equidistance with Indonesia's archipelagic baselines and Malaysia's normal baselines. The analysis shows that the provisional

[1255] Act 660, Article 5 (2).
[1256] Illustration by the author.

equidistance line coincides with the western segment of Indonesia's unilateral claim, which confirms that Indonesia proposes its unilateral claim based on equidistance principles (see subsection 7.3.1), particularly for the segment starting from point 6 eastward, up to a point south of Pulau-Pulau Lima (see Figure 7.10). The provisional equidistance line heads to the south-east due to the existence of South Ledge and Middle Rocks. Pedra Branca on the other hand does not seem to affect provisional equidistance line segment at the south of the three features for Middle Rocks, which are situated at the south of Pedra Branca, fully control the construction of equidistance line. The line then heads in a north-easterly direction to the east of Pedra Branca and Middle Rocks to reach the 12 nautical mile limit measured from Indonesia and Pedra Branca as seen in Figure 7.10.

Option 2 in Figure 7.10 is an equidistance line by considering normal baselines for both Indonesia and Malaysia. Compared to option 1, this option is quite significantly different where the line is pushed southward towards the Indonesian coast. Apparently the baseline segment between TD.193 and TD.194 contribute significantly in maritime boundary delimitation, should it be given full consideration. When archipelagic baselines are not in effect, the equidistance line follows the shape of Indonesia's coast extending southward between Indonesia's Pulau Batam and Pulau Bintan up to a distance of more than 2 nautical miles from the line in option 1 (see Figure 7.10). This is also the case in the eastern part of the equidistance line where the shape of the line is 'bent' towards Indonesia for the use of Indonesia's normal baselines between TD.194 and TD.195 (see Figure 7.10). Options 1 and 2, when overlaid, generate an area of difference of around 65 square kilometres (see shaded area in Figure 7.10). Apparently the use of Indonesia's archipelagic lines does make a significant difference in maritime delimitation. It will not be surprising that Indonesia argues the need of using archipelagic baselines in ongoing and future delimitation negotiation.

With regard to Indonesia's unilateral claims, it can be inferred from Figure 7.10 that its proposed line apparently not only ignores Pedra Branca, Middle Rocks and South Ledge, it also gives the three features a relatively small area of territorial sea in maritime delimitation. Indonesia's claim line forms a 'pocket' or semi-enclave to provide a maritime space for Middle Rocks with a radius of around 500 metres.[1257] Pedra Branca on the other hand is not accorded any specific maritime space in the

[1257] The distance was measured on Peta NKRI 2012.

Indonesian claim as it is located on the Malaysian side of the claimed line. Meanwhile, South Ledge is fully enclaved at the Indonesian side of the claim line and is given a 500-metre maritime zone. As a result, Indonesia's unilateral claim is largely in line with a median line between opposite main coast and constructed as if the three features do not exist. In Figure 7.10, the line is labelled "median line with PB, MR and SL ignored" where PB is Pedra Branca, MR is for Middle Rocks and SL represents South Ledge.

A question may be raised as to why Indonesia decided to give only 500 metres to the three features but there has been no technical explanation about it on Indonesia's official map. The 500-metre zone given to Middle Rocks and South Ledge may remind us of safety zones governed by the LOSC. However, such safety zone, the breadth of which should not exceed 500 metres, are applicable to artificial islands, installations and structures,[1258] and not to islands, rocks or LTEs. Thus, this 500-metre zone does not seem to be a safety zone as governed by the LOSC. Apparently, this is simply a forward position of Indonesia by giving the three features as minimal effect as possible in maritime delimitation. This can apparently be a source of contention in future maritime delimitation among Indonesia, Malaysia and Singapore.

It appears that Malaysia's maritime claim of 1979 as shown in Figure 7.10 was proposed by considering Indonesia's normal instead of archipelagic baselines. Malaysia's claim is similar to Option 2 in Figure 7.10, even though they do not precisely coincide. For the eastern part, the segment around Pedra Branca, it appears that the 1979 claim considers Pedra Branca, Middle Rocks and South Ledge as part of Malaysia and two of them (Pedra Branca and Middle Rocks) were apparently given full effect in drawing Malaysia's claim line. South Ledge, on the other hand, was considered to have no role in determining the 1979 claim line. Regardless of any effect given to each of the three features, it is worth noting that the three features were still disputed when the 1979 map was issued. This is one of the reasons why the 1979 map was protested by almost all neighbouring States in the region, especially Singapore, with which the sovereignty over three features was disputed.[1259]

It is intriguing to observe that the 1979 claim line also apparently ignores Indonesia's archipelagic baselines, especially the segment between TD.194 and TD.195, which were

[1258] LOSC, Article 60 (4).
[1259] Singapore protested the 1979 map through its diplomatic Note of 14 February 1980. See Pedra Branca Case, see above note 73, para. 33.

already in place when the map was issued. Indonesia designated its first archipelagic baselines in 1960 through Act Number 4/Prp/1960 (see Chapter 3, section 3.3). Even though the 1979 line is not precisely coincident with theoretical equidistance line by giving full effect to Middle Rocks/Pedra Branca, it is safe to say that it roughly follows that theoretical median line. By comparing the 1979 with the theoretical equidistance line of option 2, it is clear that some parts of the 1979 line is excessive, while some other part lies on the Malaysian side of the theoretical line. Thus, it can be concluded that Malaysia's 1979 claim line is not a strict equidistance/median line as illustrated in option 2 in Figure 7.10. The 1979 line, especially around Pedra Branca appears to be a modified or adjusted median line so that certain parts of the line goes beyond a theoretical strict equidistance line towards Indonesia's coast.

Other options of generating median line are by using Malaysia's possible straight line connecting Tanjung Punggai, Pulau-pulau Lima, and Tanjung Ayam (see Figure 7.10). However, it is evident through geospatial analysis that the straight segment line does not make any difference compared to the use of only normal baselines. Apparently this is because the straight segment is not long enough so its impact is effectively unnoticeable. Accordingly, options of equidistance lines by using Malaysia's possible straight baselines are not shown on Figure 7.10 for they are not essentially different from other options that use only Malaysia's normal baselines. It is worth, however, to note that this option of straight baselines is only one possible option from several possibilities which Malaysia has yet to specify (see subsection 7.6.1).

The next question is which equidistance line is the most appropriate to serve as a provisional line in relation to the three-stage approach. Apparently, provisional equidistance line is usually created by ignoring small islands as it is evident in *Bay of Bengal Case*.[1260] However, as previously discussed, it does not seem to suit the case of territorial sea delimitation where every small feature (rocks/islands or even LTEs) are entitled to 12 nautical miles of territorial sea, which make them worth to consider in maritime delimitation where territorial sea between two States is less than 24 nautical miles.

Another consideration in choosing provisional equidistance line is the use of different type of baselines of Indonesia and Malaysia. For Indonesia, the use of its archipelagic

[1260] Bay of Bengal Case, see above note 327.

baselines is likely a preferred option for it is, to an extent, advantaged (see above). In addition, Indonesia's baselines have been deposited to the UN and have not received any protest from Malaysia (see Chapter 3, section 3.9).[1261] Even though Malaysia's silence in this case is not necessarily a clear-cut evidence of agreement or endorsement, it can certainly be inferred that Malaysia has no urgent concern with Indonesia's archipelagic baselines. Otherwise, Malaysia could have protested should it find the baselines excessive or not in compliance with the LOSC, for instance. Despite its silence on Indonesia's archipelagic baselines, there is still possibility that Malaysia may oppose their use and instead proposes the use of Indonesia's normal baselines in maritime delimitation. This may seek justification, for example, from the recent decision by ITLOS in the Bay of Bengal Case where the straight baselines of Bangladesh were ignored in maritime delimitation and only relevant basepoints along normal baselines were used.[1262] However, it is worth noting that the case of Bangladesh's straight baselines is not the same as that of Indonesia's archipelagic baselines. First, Bangladesh's baselines were drawn with some 'floating' basepoints, not anchored on land/islands.[1263] Secondly, while both are straight in nature, archipelagic and straight baselines are two different concepts and governed by different provisions in the LOSC. Therefore, the fact that straight baselines are usually ignored in maritime delimitation by the court or tribunal does not necessarily support ignoring legitimate archipelagic baselines in drawing maritime boundaries. It is worth nothing that there has been no case decided by the ICJ or ITLOS that involved archipelagic baselines in maritime delimitation. This indicates that current jurisprudence does not indicate any definitive rule concerning the role of archipelagic baselines in maritime delimitation.

Having analysed the above it is apparently fair to say that a provisional equidistance line using Indonesia's archipelagic baselines is an acceptable option. To ensure balance, Malaysia may also be given a chance to employ its potential straight baselines, the designation of which has been indicated in Act 660 as discussed earlier.[1264] Indonesia may, however, weary of this option as it may imply acceptance of Malaysia's straight baselines claims elsewhere, for instance in the Malacca Strait, which does not appear to

[1261] For maritime zone notification and a complete list of the coordinates, see: <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/IDN.htm>, accessed on 24 March 2009.
[1262] Bay of Bengal Case, see above note 327, para. 273.
[1263] Palmer, Trent. "Sea Level Change and Baselines". *Proceedings of the Canadian Hydrographic Conference and National Surveyors Conference*, 2008, p. 5-8
[1264] See above note 1222.

be the case (see Chapter 8). For the purpose of this study, a provisional median line with Indonesia's archipelagic baselines and the combination of Malaysia's normal and straight baselines is used for further process in a three-stage approach (see Figure 7.10).

7.6.4.2 Adjusted lines

For the western side of the Singapore Strait, the provisional median line does not need to be adjusted for there does not seem to be any special circumstances to consider. For this western side, strict equidistance line is likely to serve as an option for Indonesia and Malaysia to seriously consider. This is consistent with the LOSC's provision governing territorial sea delimitation stating that "neither of the two opposite or adjacent States is entitled to extend its territorial sea beyond the median line" unless either State involved agrees otherwise, or due to the existence of "historic title or other special circumstances".[1265]

For the eastern side of the Singapore Strait, the presence of small islands and other geographical features may be considered as the presence of "special circumstances" in relation to territorial sea delimitation pursuant to Article 15 of LOSC. Apart from provisions in LOSC, the ICJ has also decided cases such as the North Sea Continental Shelf case,[1266] Tunisia/Libya,[1267] Libya/Malta[1268] and Qatar v. Bahrain.[1269] The decisions indicate that the equitableness of the maritime boundary resulting from the application of the equidistance line principle depends on whether the precaution is taken of eliminating the "disproportionate effect" caused by small features such as islets, rocks, and coastal projections along the coast.[1270]

By considering the aforementioned issues and criteria, the previously drawn provisional equidistance/median line was adjusted. The presence of Pedra Branca Middle Rocks and

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[1265] LOSC, Article 15.

[1266] International Court of Justice. 1969. "North Sea continental shelf cases (Federal Republic of Germany/Denmark; Federal Republic of Germany/Netherlands), Judgement of 20 February 1969, The Hague, The Netherlands"; accessed from <http://www.icj-cij.org/docket/files/52/5561.pdf> on 21 February 2011.

[1267] International Court of Justice. 1982. "Case concerning the continental shelf (Tunisia/Libyan Arab Jamahiriya), Judgement of 24 February 1982, The Hague, The Netherlands", accessed from <http://www.icj-cij.org/docket/files/63/ 6267.pdf> on 22 February 2011.

[1268] International Court of Justice. 1985. "Case concerning continental shelf (Libyan Arab Jamahiriya/Malta), Judgement of 3 June 1985, The Hague, The Netherlands", accessed from <http://www.icj-cij.org/docket/files/68/ 9573.pdf> on 20 January 2011.

[1269] International Court of Justice. 2001. "Case concerning maritime delimitation and territorial questions between Qatar and Bahrain, Merits, Judgement of 16 March 2001, The Hague, The Netherlands", accessed from <http://www.icj-cij.org/docket/files/87/7027.pdf> on 24 February 2011.

[1270] Shi, J. 2010. "Maritime delimitation in the jurisprudence of the International Court of Justice, Chinese Journal of International Law Vol. 9 No. 2 (June): 271-291.

South Ledge is a contributing factor in this case. The question is how much weight the features should be given in adjusting the provisional line. As previously mentioned, giving nil or full effect to the three features will not affect its roles in the delimitation for their distance from each other and from the closest point in Indonesia is less than 24 nautical miles. The line can be adjusted by modifying the provisional median line based on relevant coast length proportionality. For Indonesia, relevant coast can be represented by a baselines segment from point TD.194 to TD.195, the length of which is approximately ten nautical miles. Meanwhile, relevant coast for Malaysia in this case can be represented by the distance between South Ledge and Middle Rocks which is around 1.8 nautical miles (see Figure 7.11). This makes the proportion of the relevant coast of the two opposite States is around 5 to 1 (Indonesia to Malaysia). It is acceptable, therefore, to shift the provisional line towards Malaysia. Figure 7.11 shows an option of adjusted line by giving weight of 5 and 1 to Indonesia and Malaysia respectively. It is worth noting, nevertheless, that proportion of coastline does not necessarily have to have direct bearing on the construction of median line. In the *Black Sea Case*, for example, coastal length disparity between Ukraine and Romania was not viewed as a relevant factor to shift the provisional line that the court has previously drawn.[1271] However, in the case of Indonesia and Malaysia in the Singapore Strait, the difference of relevant coast length is significant with a ratio of 5 to 1 so that the adjustment due to this factor may be necessary. On the other hand, Malaysia might argue that weight assigned to Indonesia and Malaysia respectively does not have to precisely reflect the ratio of coast length between the two States. Figure 7.11 also shows a different option with a ratio of 2:1 for Indonesia and Malaysia are respectively. Another option is with a 3:1 ratio between Indonesia and Malaysia baseline. The use of 3:1 ratio is for example used in the Territorial and Maritime Dispute (Nicaragua v. Colombia) for substantial disparity in the lengths of the parties' relevant coasts.[1272] The application of different ratios generates different weighted lines as illustrated in Figure 7.11. The options are certainly not exhaustive since possibilities are indeed endless.

[1271] Black Sea Case, see above note 316, para. 168.
[1272] Nicaragua v. Columbia, see above note 314, para. 234.

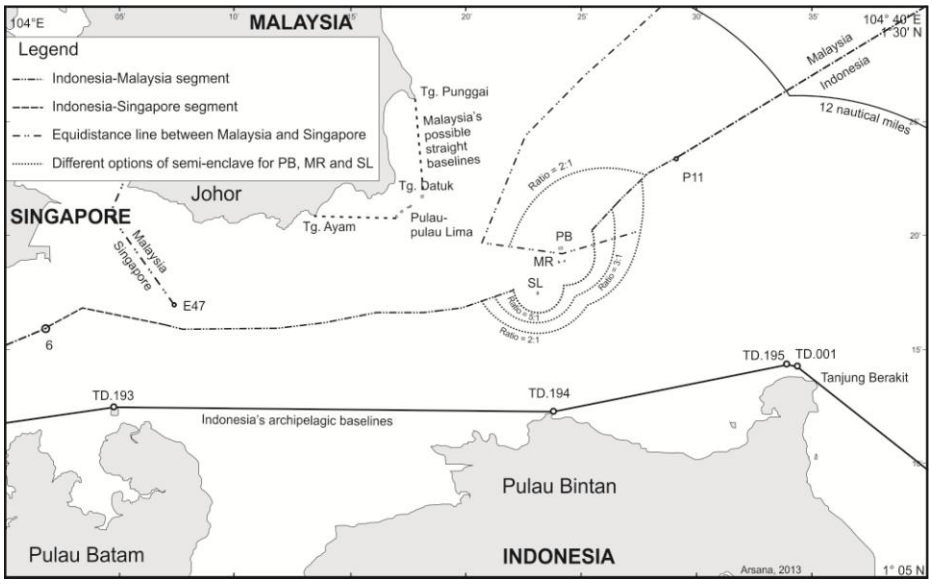

Figure 7.11 Options of Adjusted Median Lines in the Eastern Side of the Singapore Strait by Considering Length Ratio of Relevant Coast[1273]

Figure 7.11 illustrates different options of adjusted median line between Indonesia and Malaysia, especially in the maritime area around Pedra Branca, Middle Rocks, and South Ledge. One principle to be reflected in the different option is that small islands/rocks/LTE should be treated in such a way so that they do not cause a disproportionate effect to maritime delimitation. In this case, Pedra Branca, Middle Rocks and South Ledge are considered as special circumstances to be taken into account in adjusting the provisional median line previously generated.

Maritime boundaries between Malaysia and Singapore are not the main focus of this research but options were also generated as illustrated in Figure 7.11. Between Pedra Branca and Middle Rocks, the median line appears to be an acceptable option for there are no special features/characteristics that should cause adjustment of the provisional median line. Meanwhile, for maritime boundaries between Pedra Branca and the peninsula, a method other than strict equidistance line may be opted for. Apparently, the relevant coast of Malaysia is significantly longer than that of Pedra Branca (Singapore) so that it is acceptable if the median line is shifted towards Pedra Branca. Figure 7.11 for example, shows an adjusted line with a proportion of 2:1 for Malaysia and Singapore. As also the case with maritime boundaries between Indonesia and Malaysia, options for Malaysia-Singapore boundaries are also endless. However, the effect/weight

[1273] Illustration by the author.

assigned to Pedra Branca will apparently be a key factor in generating final and binding maritime boundaries between them.

Another approach in adjusting provisional median line is by assigning specific space of territorial sea for Pedra Branca, Middle Rocks and South Ledge. This is similar to what Indonesia has proposed in its forward position (see subsection 7.3.1) by according only 500 metres territorial sea for the three features. As a consequence, South Ledge is fully enclaved, Middle Rocks is semi-enclaved and Pedra Branca is not assigned any specific territorial sea of its own for its distance is more than 500 metres from the strict equidistance line (see subsection 7.6.4.1). While Indonesia apparently views that the three small features should not be given more than 500 metres of territorial sea, this will cause complexity in management. South Ledge, being an LTE will be surrounded by a 500 metre territorial sea and is located within Indonesia's territorial sea. This might be viewed as impractical, especially because its distance from the boundary line, should Indonesia's proposal be accepted, is less than a half nautical mile. While full enclavemed is not unprecedented for small islands located remotely from mainland, this might not be seen as appropriate by Malaysia for South Ledge is located close to the mainland of Malaysia. Therefore, it is more acceptable if Middle Rocks and South Ledge, for it is likely to fall within Malaysia's territorial sea measured from Middle Rocks, are situated in the same/connected space of territorial sea by giving them more than 500 metres of territorial sea. This also means that the features are semi-enclaved instead of fully enclaved. The question is how large territorial sea should be given to the features. Figure 7.12 shows three options of adjusted line by giving the three features territorial sea with a breadth of one, two and three nautical miles respectively.

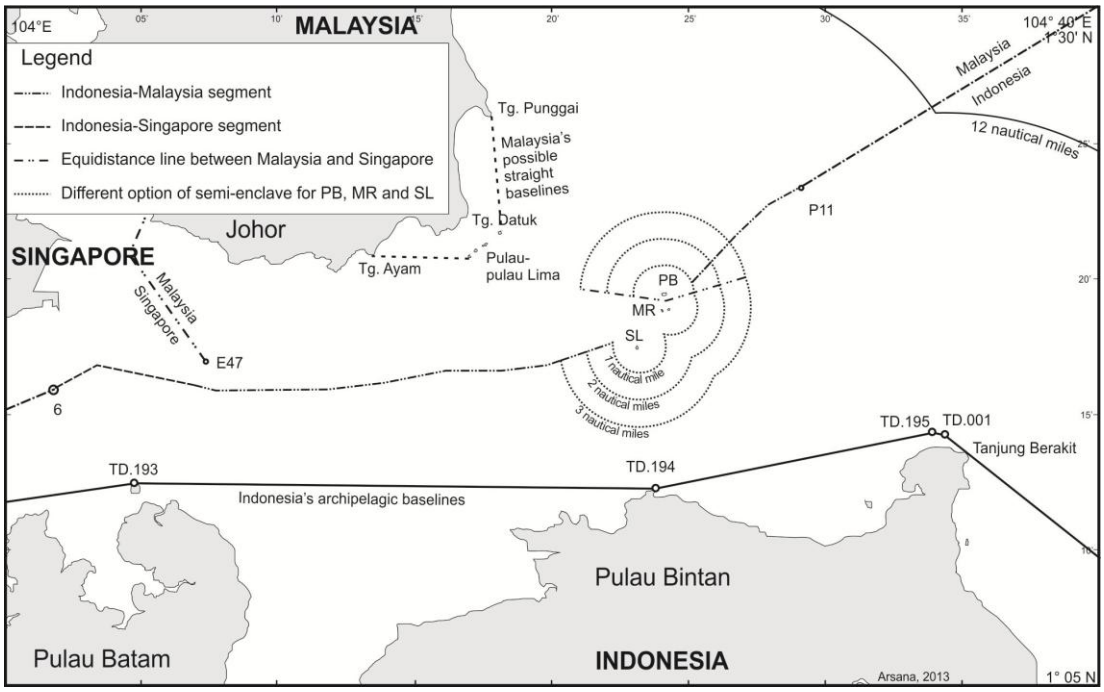

Figure 7.12 Options of Adjusted Median Lines in the Eastern Side of the Singapore Strait by Giving One, Two and Three Nautical Miles of Territorial Sea for Pedra Branca, Middle Rocks and South Ledge[1274]

Figure 7.11 and Figure 7.12 show that an option with 5:1 ratio is similar to giving one nautical mile to South Ledge and Middle Rocks. This option is apparently the closest option to Indonesia's unilateral claimed. With an argument of relevant coast proportion, this option of giving one nautical mile to the three features is likely to be the most preferred option for Indonesia. Malaysia, on the other hand, will likely argue that the small features in the Singapore Strait should be given more weight in delimitation and demand the provisional median line not to be adjusted or modified for median line or equidistance line has been accepted as a norm in territorial sea delimitation.[1275] However, it is worth noting that an equidistance line constructed by fully taking into account the three small features will cause disproportionate effects in the delimitation for the line will be significantly pushed southward by the small feature toward Indonesia with much longer relevant coast. Therefore, it is safe to say that this option will not be considered to be fair and equitable for Indonesia. As previously mentioned,

[1274] Illustration by the author.
[1275] LOSC, Article 15.

small islands/rocks/LTE should not cause disproportionate effects on maritime delimitation, as stated by the ICJ in several of its decisions.[1276]

With regard to the status of Pedra Branca, it will not be surprising that Singapore may regard Pedra Branca as an island that is entitled to not only territorial sea but also EEZ and continental shelf pursuant to Article 121 of LOSC. If the object is considered an island capable of generating EEZ and continental shelf rights, it may generate an EEZ triangle in the maritime area to the northeast of Pedra Branca.[1277] However, Malaysia in this case may well argue that the small feature does not constitute a 'full' island and is in fact only a "rock" entitled to a territorial sea.

7.6.4.3 Disproportionality Test

The "disproportionality test" as the third step in the three-stage approach as outlined in the *Black Sea Case* is to ensure that the delimitation line "does not lead to any significant disproportionality by reference to the respective coastal lengths and the apportionment of areas that ensue."[1278] In other words, the delimitation line produced in the second step of the three-stage approach needs to be evaluated to ensure that the line does not reflect disproportionality for parties in question. This can be done by comparing the ratio of relevant coastal length and the ratio of maritime area assigned for respective parties in the delimitation.

As previously highlighted in Chapter 6 (see subsection 6.6.7.3), the first critical step for this disproportionality test is to define relevant areas of delimitation. This is essential for the purpose of calculating the size of relevant maritime area in the delimitation, which in turn is important in calculating maritime area assigned to each party after delimitation. The next step is to measure each party's coastal length to be to calculate the ratio. This is followed by calculating the size of maritime area assigned to each party within relevant area of delimitation to also define ratio between the assigned areas. The final stage is to compare the coastal length ratio and the ratio of maritime areas assigned to each party as the result of delimitation to decide whether or not the line needs further adjustment.

[1276] See: Lowe, V., C. Carleton, and C. Ward. 2002. "In the matter of East Timor's maritime boundaries opinion", accessed from <http://www.petrotimor.com/ lglop.html> on 20 February 2011. See also: Shi, J. 2010. "Maritime delimitation in the jurisprudence of the International Court of Justice

[1277] See, Beckman and Schofield, 2009, p. 8.

[1278] Black Sea Case, see above note 316, para. 210.

In the case of the Singapore Strait, there are more than one options of adjusted median line. For the purpose of this analysis, an option with ratio of 5:1, 3:1 and 2:1 for Indonesia and Malaysia, respectively, were used. The 5:1 ratio is the closest representation of the relevant coast length ratio of Indonesia and Malaysia. Relevant area of delimitation is enclosed by Indonesia's relevant archipelagic baselines and Malaysia's relevant normal baselines. The western side of the limit is point E47 of Malaysia-Singapore 1995 boundary and the eastern limit is Indonesia's basepoint of TD.195. Tanjung Punggai is the northern limit of the relevant area as illustrated in Figure 7.13. With this definition of relevant area, the length of Malaysia's relevant normal baselines is around 8 nautical miles in length while Indonesia's relevant archipelagic segment is approximately 26 nautical miles. Should the distance between South Ledge and Middle Rocks be taken into account, Malaysia's relevant coast is 10 nautical miles in total. These make the ratio of coast length is 2.6 to 1 for Indonesia and Malaysia respectively.

For the purpose of this analysis, maritime area areas are divided only by two, which is for Indonesia (south of the proposed/adjusted line) and for Malaysia/Singapore (north of the adjusted line). For the 5:1 ratio, maritime area assigned for Malaysia/Singapore is around 480 square kilometres, and 540 square kilometres for Indonesia, which makes the ratio 1.1:1 for Indonesia and Malaysia/Singapore. For the ratio of 3:1 maritime areas are around 500 square kilometres for Malaysia/Singapore and around 520 for Indonesia or in a ratio of 1.04 to 1 for Indonesia and Malaysia/Singapore. For the 2:1 ratio, maritime area assigned for Indonesia is around 500 square kilometres and around 520 for Malaysia/Singapore or in a ratio of 1:1.04 for Indonesia and Malaysia/Singapore respectively. Apparently, none of these area ratios reflect the ratios of their relevant coast lines. In this case, Indonesia is entitled to a larger maritime area for technically its maritime area may be twice as large as that of Malaysia's/Singapore's. This implies that even the weighted line of 5:1 needs further adjustment so that it is closer to Malaysia. This can theoretically be achieved by giving Pedra Branca, Middle Rocks and South Ledge a reduced breadth of the territorial sea. This, to an extent, justifies that Indonesia's unilateral claim that gives only 500 metres of territorial sea for South Ledge and Middle Rocks is supported by reasonably strong legal and technical arguments. However, as previously discussed, giving only 500 metres of territorial sea for Pedra Branca, Middle Rocks and South Ledge will create an impractical situation where South

Ledge is fully enclaved within Indonesia's territorial sea. Therefore, this difference in ratio of coastal length and the size of maritime area assigned to Indonesia and Malaysia/Singapore may be ignored and does not need to be taken into account in further adjusting the median line. In other words, the adjusted line by considering 5:1 ratio for Indonesia and Malaysia, respectively, can arguable be considered to be a 'fair' solution. Figure 7.13 illustrates relevant area of delimitation in the Singapore Strait and proportion of maritime areas for Indonesia and Malaysia/Singapore.

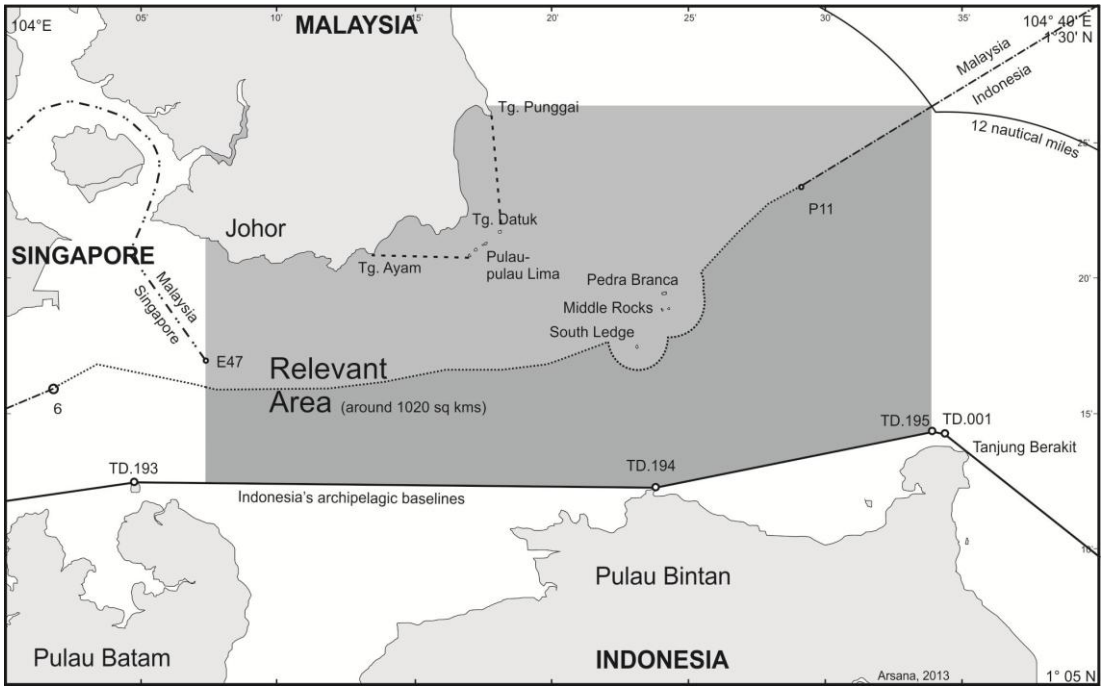

Figure 7.13 Relevant Area of Delimitation in the Singapore Strait and Proportion of Maritim Areas for Indonesia and Malaysia/Singapore[1279]

7.7 Concluding Remarks

The pending maritime boundary delimitation between Indonesia and Malaysia in the Singapore Strait is one of the reasons for tension building between these two neighbouring States. There are two locations of pending maritime boundaries in the area. The first location is at the western side of the Singapore Strait where a boundary line connecting point 8 of Indonesia-Malaysia 1970 territorial sea boundary and point 1C of Indonesia-Singapore 2009 territorial sea boundary. The second one is at the eastern side of the strait where a line of series of lines is required to start from point 6 of Indonesia-Singapore 1973 territorial sea eastward up to point 11 of Indonesia-Malaysia 1969 seabed boundary.

[1279] Illustration by the author.

The incident which took place around waters off Tanjung Berakit in the Singapore Strait on 13 August 2010 is a good example how pending maritime boundaries can cause international incidents. The Tanjung Berakit incident involved the apprehension of Malaysian fisheries and Indonesian officials around the waters off Tanjung Berakit, the sovereignty over which is currently uncertain. However, Indonesia and Malaysia have their own unilateral maritime claims in the area which are therefore areas over which both States extend their claims. Consequently, there is no consensus about the boundary line in the area and each State has its own version of the boundary line based on its own unilateral claims. Law enforcement through sea patrols and similar activities conducted by both States were based only on unilateral claims, not on any agreement or regulation agreed upon by both States. Indonesian officials view the presence of Malaysians in an area of overlapping claim as an infringement and so do Malaysian officials in the case of Indonesian presence in the same area. A geospatial analysis of the maps of Indonesia and Malaysia's unilateral maritime claims shows that there are several options and scenarios of infringement committed by one party against the other.

The key to resolving the Tanjung Berakit incident and preventing similar incidents from recurring is maritime boundary delimitation between Indonesia and Malaysia in the Singapore Strait. The delimitation will also need the involvement of Singapore given its sovereignty over Pedra Branca. This is being undertaken by all parties in question through a number of bilateral negotiations. Ideally speaking, maritime boundary delimitation is based on the principles governed by the LOSC and relevant jurisprudence with adequate consideration to relevant geographic factors (length of relevant coastlines/baselines, the presence of small islands/rocks and LTEs). In addition, current and existing activities of Indonesia and Malaysia conducted for generations in the area should also be taken into consideration.

There are several pertinent issues identified in relation to maritime boundaries in the Singapore Strait. Firstly, Indonesia and Singapore have predominantly settled territorial see boundary between them so it is worth noting that there are existing maritime boundary lines to take into account in any future delimitation. Secondly, maritime delimitation in the area is for territorial sea for the breadth of the strait is less than 24 nautical miles in its entirety. Thirdly, Indonesia and Malaysia have both made their respective unilateral maritime claims so both have their own version of maritime boundaries in the area. These unilateral claims generate overlapping areas where

incidents involving fishermen and law enforcement officials usually take place. Fourthly, there are small islands/rocks/LTEs in the eastern side of the Singapore Strait which may be considered as special circumstances in maritime boundary delimitation.

In principle, the median/equidistance line is the appropriate method for maritime delimitation in the Singapore Strait for it is the case of territorial sea. However, to accommodate the possibility of using a method other than the equidistance line, the three-stage approach was implemented. In this case, the three-stage stage approach is comparable to the use of equidistance line which is possibly modified by the consideration of special circumstances. Basically the use of median/equidistance line is primary in the delimitation but special circumstances were seriously considered to justify whether or not the equidistance line needs adjustment. The three steps are constructing provisional equidistance/median line, adjusting the provisional line by considering special circumstances, and disproportionality test to ensure that the adjusted line does not cause inequity.

In generating the provisional equidistance line in the Singapore Strait, different types of baselines were used for Indonesia and Malaysia so different options of provisional lines were generated. For the purpose of this research one option was chosen for further analysis in the second step. The option was often the one with Indonesia's archipelagic baselines for Indonesia has been recognised internationally as an archipelagic State. On the other hand, Malaysia has yet to specifically declare straight baselines even though it has indicated possibilities of designating straight baselines if required.[1280] To ensure fairness, the selected option was also with Malaysia's possible straight baselines when viewed necessary and acceptable.

Adjustment of the provisional median line was generally achieved by considering the location of small islands/rocks/LTEs and relevant coast lengths. In the eastern side of the Singapore Strait, the existence of Pedra Branca, Middle Rocks and South Ledge was the main factor to consider in adjusting the provisional line. In addition, the ratio of relevant coast was also considered in adjusting the provisional line. Different effect/weighting assigned to the three features resulted in different options of adjusted lines. In this research, it was found that the ratio of relevant coast is 5:1 so the provisional median line was adjusted in such as way to reflect or at least take into

[1280] Act 660, Article 5 (2).

consideration this coast length ratio. The last step was to compare the ratio of relevant coast length (represented by normal or archipelagic baselines) and ratio of maritime size given to each State in question to ensure the process does not cause disproportionality. It was found that ratio of coastal length does not necessarily have direct bearing with the proportion of maritime size. By comparing several options, it was found that a weighted line of 5:1 ratio for Indonesia and Malaysia respectively generates the fairest solution for maritime delimitation in the area.

It is worth noting that the result produced in this analysis is by no means the only possibility for maritime boundaries in the Singapore Strait. This is only an alternative by considering legal and technical aspects and all relevant factors that may affect the real process in the future. The author is aware that maritime boundary delimitation is eventually a bilateral or trilateral process and it is up to parties in question to find an acceptable solution for all parties involved. Additionally, it is worth noting that the delimitation in the Singapore Strait is only one among several maritime boundary segments that Indonesia and Malaysia need to resolve. Indonesia and Malaysia may need to see those different segments and locations of pending maritime boundaries as a whole package. With this it is possible for Indonesia and Malaysia to be more flexible and see a possibility of trade-off to finish the entire maritime boundary delimitation (see Chapter 8, section 8.9 and Chapter 9 section 9.2.5). However, it is hoped that the present analysis can inform the parties in question and provide options that they can seriously consider in the future maritime boundary negotiations.

CHAPTER 8 MARITIME DELIMITATION IN THE MALACCA STRAIT

"A good neighbour is a fellow who smiles at you over the back fence, but doesn't climb over it."
- Arthur Baer

8.1 Introduction

The above quote from Arthur Baer appears to be apt with respect to the bilateral relationship between Indonesia and Malaysia. These two independent States have much in common, sharing important aspects such as language, religion, culture, and social construction.[1281] The two neighbours are also partners within the Association of East Asian Nations (ASEAN) and generally have strong political and economic relations. Malaysia is one of Indonesia's closest neighbours in the north.[1282]

It might be expected that Indonesia and Malaysia would be able to build on such commonalities by collaborating peacefully and productively in their maritime transboundary relations than, in fact, appears to have been the case. Regardless of the significant achievements arising from their alliances and their significance of their strong bilateral ties generally,[1283] problems have arisen from time to time. In this context, the pending or unfinished maritime boundaries between the two States have proved to be a persistent source of friction and tension. Thus, Arthur Baer's observation above seems to be correct when applied at the international level especially in that when States are good neighbours, they respect ("smile" at) each other but at the same time they will not cross boundaries (the "fence") between them with bad intentions. These clear boundaries remain crucial to sustaining resilient relations. Conversely, even when States are supportive of international cooperation, good neighbourly relations and the free movement of people, goods and information, unsettled international boundaries can continue to create tensions.

[1281] Bahasa Indonesia is a combination of several languages and Malay is one of them (30% Arabic, 30% European and 40% Malay). See, Oegroseno, AH. *Misunderstanding on patent for culture* [*Salah kaprah paten budaya*], *Kompas*, 9 October 2009.

[1282] Not only are the maritime areas of the two States adjacent to one another such that they share long maritime boundaries as discussed here but Malaysia is one of only three States with which Indonesia shares borders on land. Indeed Indonesia's longest land boundary is with Malaysia on the island of Borneo. Indonesia's other land boundaries are with Papua New Guinea on the island of New Guinea and with Timor Leste on the island of Timor.

[1283] Indonesia has been providing Malaysia with workforce, especially in informal sectors. In addition, more and more Indonesians are currently studying in Malaysian higher institutions.

One of the pending maritime boundaries for Indonesia and Malaysia is located in the Malacca Strait, one of the busiest water ways in the world in terms of maritime trade (see below). This unsettled maritime boundary in the Malacca Strait specifically relates to water column jurisdiction. While the continental shelf boundary was agreed upon in 1969, the boundary relating to the overlying waters remains to be delimited and is unsettled but currently under negotiation.[1284] This means that entitlement over the seabed and resources therein has been made clear but not that over the water column and its associated marine living resources. Consequently, the rights of States (Indonesia and Malaysia) concerning the utilisation of oil and gas as well as any sedentary living resources of the seabed[1285] have been clarified but jurisdictional rights concerning fisheries remain unclear.[1286]

Even though maritime delimitation has yet to be finalised in the Malacca Strait, each State has defined and claimed its own EEZ in this area. Each State has also issued maps showing their respective unilateral claims. Unsurprisingly, the lines claimed by these States do not coincide with each other, leading to the creation of substantial areas of overlapping claims. Indonesia believes that the overlapping maritime area falls within Indonesia's jurisdiction and, correspondingly, so does Malaysia. Of particular note is that both States conduct law enforcement operations in the area of overlapping claims based on their respective unilateral claim lines. As a result, activities conducted by Malaysian fishermen in the area are viewed as an infringement by Indonesia and vice versa. This has led to a number of incidents and will be outlined later on in this chapter.

This chapter analyses challenges and opportunities in respect of finalising maritime boundaries in the Malacca Strait between Indonesia and Malaysia. It provides a geographical overview of the area to be delimited between the two States, traces the evolution of maritime claims and boundary agreements relevant to the Malacca Straits and highlights key boundary-related incidents that have occurred, together with analysis recent developments. Concerning maritime boundary incidents, the events of 7 April 2011 provides the key case to discuss. The chapter goes on to explore potential options

[1284] At the time of writing, there have been 25 negotiations (technical meetings) between Indonesia and Malaysia discussing all pending maritime boundaries in four different locations: Malacca Strait, Singapore Strait, South China Sea and Sulawesi Sea. Information on the development of maritime boundary negotiation is available through Press Releases of the Indonesian Ministry of Foreign Affairs, which are available through <http://www.kemlu.go.id/Pages/PressRelease.aspx>.
[1285] LOSC, Article 77(4)
[1286] To understand different regimes of maritime zone of jurisdictions, see: United Nation Convention on the Law of the Sea, particularly Part V (EEZ) and Part VI (Continental Shelf).

for maritime delimitation between Indonesia and Malaysia in the Malacca Strait, applying the research approach articulated in Chapter 1 of this thesis.

8.2 The Malacca Strait

The Malacca Strait is considered as one of the most important water ways in the world. It is one of the busiest straits used for international navigation (see below) and forms an important maritime space primarily between Indonesia and Malaysia because it connects the Malay Peninsula and Indonesia's Island of Sumatra. For this reason, the Malacca Strait has been subject of a plethora of research and scientific publication over a considerable period. Almost all aspects of the Malacca Strait have been discussed in various publications.[1287] This following subsection only highlights several important contextual issues concerning the Malacca Strait to serve as an introduction leading to the discussion on pending maritime boundary delimitation in the area.

8.2.1 Geographical Setting

The Malacca Strait is the strait located between Indonesia's Island of Sumatra to the Southwest and the southwestern coast of Malay Peninsula to the Northeast. The International Hydrographic Organization defines that the limit the Malacca Strait by specifying its limits on the west, north, east and south as the following description.[1288] On the west is a line joining Pedropunt, the northernmost point of Sumatra a coordinates of 5° 40' N, 95° 26' E and Lem Voalan at the Southern extremity of Goh Puket in Thailand, the coordinates of which are 7° 45' N, 98° 18' E. On the East side, the Malacca Straits is limited by a line joining Tanjung Piai (Bulus), the Southern extremity of the Malay Peninsula at coordinates of 1° 16' N, 103° 31' E and the Brothers at coordinates of a° 11'.5 N, 103° 21' E and thence to Pulau Karimun at coordinates of 1° 10' N, 103° 23'.5 E. On the South, as previously informed, the Malacca Strait is limited by the northern coast of Sumatra as far as eastward to Tanjung Kedabu at coordinates of 1° 06' N, 102° 58' E thence to Pualau Karimun. The Malacca Strait is reasonably wide at its western entrance from the Andaman Sea, which is around 200 nautical miles in

[1287] See for example, Bateman, Sam, Catherine Zara Raymond, and Joshua Ho. Safety and Security in the Malacca and Singapore Straits: An Agenda for Action. Institute of Defence and Strategic Studies, Nanyang Technological University, 2006; Rusli, Mohd Hazmi Bin Mohd. "Protecting vital sea lines of communication: A study of the proposed designation of the Straits of Malacca and Singapore as a particularly sensitive sea area." Ocean & Coastal Management 57 (2012): 79-94.

[1288] International Hydrographic Organization. 1953. Limits of Oceans and Seas, 3rd edition, p. 23. available at <http://www.iho-ohi.net/iho_pubs/standard/S-23/S23_1953.pdf>, on 7 July 2013.

length.[1289] The strait is relatively narrow at its southeastern entrance, being around only 8.4 nautical miles where it terminates between Malaysia's Tanjung Piai and Indonesia's Pulau Karimun Kecil. It subsequently joins the Singapore Strait, which is located between Singapore, the south coast of Eastern Johor and Riau Islands in Indonesia.[1290] Figure 8.1 illustrates the geographical setting of The Malacca Strait as described by the International Hydrographic Organisation.

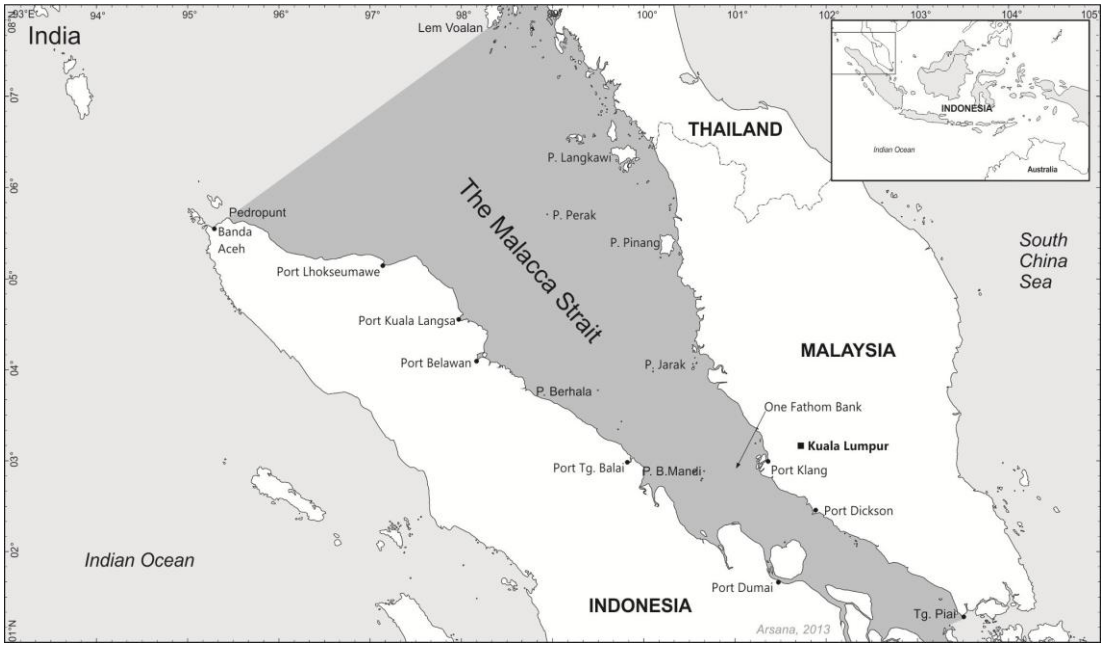

Figure 8.1. Geographical Setting of the Malacca Strait[1291]

The northern and southern limits of the Malacca Strait are approximately 500 nautical miles (926 kilometres) from one another and the overall surface area of the strait is around 52,000 square nautical miles.[1292] At the north-western part of the Strait, the width of the strait is less than 400 nautical miles so maritime boundary delimitation is required for EEZ and continental shelf. Meanwhile, in the south-eastern part where the width is less than 24 nautical miles, territorial sea needs to be delimited. There have already been continental shelf and territorial sea boundaries delimited in the Malacca Strait (see below) so what is required are EEZ boundaries.

[1289] Maritime Institute of Malaysia, 'Executive Summary' in H. M. Ibrahim and Hairil Anuar Husin (eds), Profile of the Straits of Malacca: Malaysia's Perspective (Maritime Institute of Malaysia, 2008), xiii-xvi.
[1290] H. M. Ibrahim, Hairil Anuar Husin and Deneswari Sivaguru, 'The Straits of Malacca: Setting the Scene' in H. M. Ibrahim and Hairil Anuar Husin (eds), *Profile of the Straits of Malacca: Malaysia's Perspective* (Maritime Institute of Malaysia, 2008), 32-33; J. Ashley Roach, 'Enhancing Maritime Security in the Straits of Malacca and Singapore' (2005) 59 *Journal of International Affairs*, 97.
[1291] Illustration by the author.
[1292] See, Vivian Louis Forbes, "The Malacca Strait in the Context of the ISPS Code", MIMA Conference Papers on The Malacca Strait: Building A Comprehensive Security Environment, Kuala Lumpur, October 2004.

8.2.2 Potential Resources and Other Values of the Malacca Strait

The Malacca Strait is famed for its role in international navigation, providing ways for the movements of goods and people from different parts of the world and this is clearly a critically important function. Indeed, the Malacca Strait is considered one of the maritime transportation choke points in the world.[1293] The Malacca Strait also contains important living resources and it is important to note that fisheries resources are vital for both littoral States, especially with respect to ensuring food security. Indonesia, for example, considers part of the Malacca Strait under its unilateral claim in a Fisheries Management Area (Chapter 6, subsection 6.2.2.2), especially WPP 571 (see Figure 6.2). According to the Ministry Regulation number 45 of 2011 on the Estimation of Fisheries Resources Potential in Indonesia's WPP, it was estimated that fisheries resources potential in WPP 571 is around 276,000 tonnes per year, as outlined in Table 6.1.[1294]

Table 8.1 Fisheries Resources Potential in WPP 571 (the Malacca Strait)

No	Fisheries Resources Group	Estimate potentials (in 1000 tonnes per year)
1	Large Pelagic Fish	27.7
2	Small Pelagic Fish	147.3
3	Demersal Fish	82.4
4	Penaeid Shrimp	11.4
5	Consumption Rockfish	5.0
6	Lobster	0.4
7	Squids	1.9
Total		276.1

The above estimate is sourced only for that part of the Malacca Strait that lies on the Indonesian side of the median line in the Strait (see below). From the Indonesian perspective, WPP 571 is important for fisheries even though, according to Indonesia's estimates, it is not as resourceful as other WPPs. WPP 571 makes up only 4.23 per cent of the total fisheries potential of 6,520,100 tonnes per year. Even though its potential fisheries not as high as other WPP, the Malacca Strait remains vital for fishing activities especially traditional fishermen from Indonesia and Malaysia. Uncertainty regarding

[1293] Ho, Joshua H. "Enhancing safety, security, and environmental protection of the Straits of Malacca and Singapore: The cooperative mechanism." Ocean Development & International Law 40.2 (2009): 233-247.
[1294] Ministry of Marine Affairs and Fisheries Regulation Number 45 of 2011 on the Estimation of Fisheries Resources Potentials in Indonesian WPP.

maritime boundaries represents a source of problems and potential incidents involving fishermen in the Malacca Strait, as discussed below.

8.3 Maritime Claims in the Malacca Strait

Indonesia and Malaysia have officially depicted their unilateral claims in the Malacca Strait through maps. Malaysia issued one map in 1979 and this has remained the only official issued map depicting its maritime claim. Indonesia has issued official maps virtually every year for its updated position.

As previously discussed (in Chapter 4, section 4.4), seabed and territorial boundaries have been settled between Indonesia and Malaysia in the Malacca Strait. Accordingly, the claim made by each side over the two regimes is not discussed in detailed in the following subsection. The following subsections discussed the maritime claims advanced by Indonesia and Malaysia in the Malacca Strait with a particular focus on EEZ claims.

8.3.1 Indonesia's Claim

Indonesia's maritime claims are discussed in detail in Chapter 3 of this thesis. Firstly, Indonesia is an archipelagic State which is entitled to designate archipelagic baselines and this is not an exception in the Malacca Strait. Indonesia has completed the designation of its archipelagic baselines in the Malacca Strait the final version has submitted to the Secretary General of the United Nations in 2009.[1295] In accordance with LOSC, Indonesia claims a territorial sea, contiguous zone, EEZ and continental shelf in the Malacca Strait, the breadth of which are measured from its archipelagic baselines. Figure 8.2 illustrates Indonesia's maritime claims in the Malacca Strait.

[1295] For maritime zone notification and a complete list of the coordinates, see: <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/IDN.htm>, accessed on 24 March 2009.

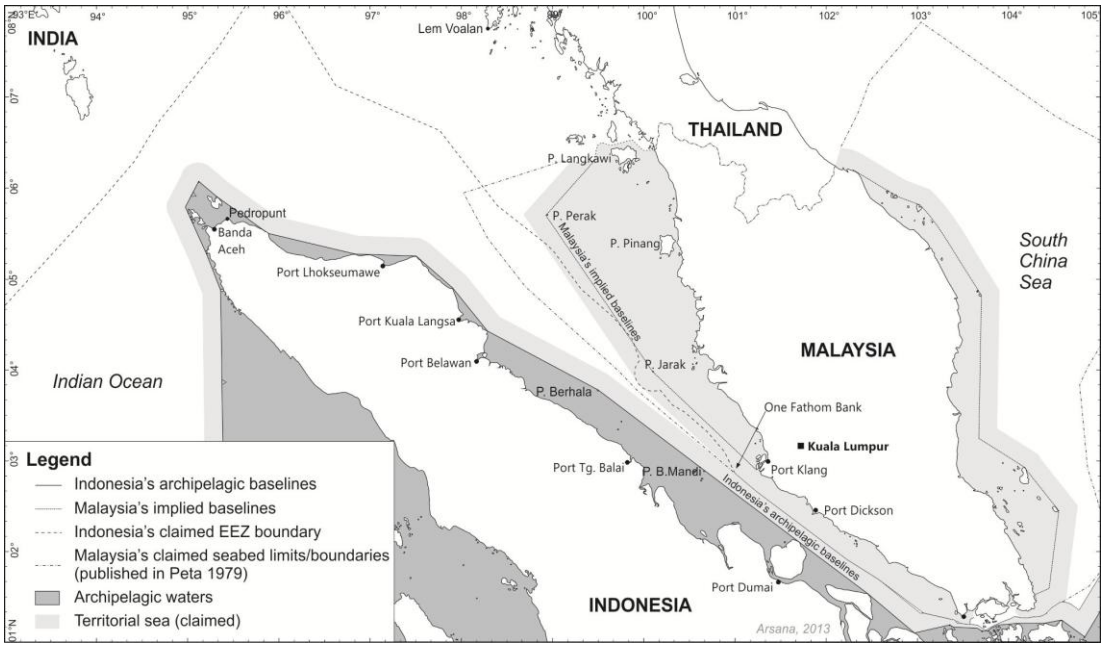

Figure 8.2. Maritime Claim in the Malacca Strait[1296]

For area to the northwest of One Fathom Bank, Indonesia is able to claim a full 12-nautical miles of territorial sea without any potential overlap with Malaysia's claim. However, this is not the case for the EEZ since the breath of the Malacca strait in its entirety is less than 400 nautical miles regardless of baselines types used to measure the breadth. Consequently, EEZ limits cannot be defined unilaterally but must be delimited bilaterally with Malaysia.

For its part, Indonesia has made its own claim as illustrated in Figure 8.2. Indonesia's claimed line for its EEZ boundary in the Malacca Strait is a median line between Indonesia's archipelagic baselines and Malaysia's normal baselines. Indonesia apparently views that the "equitable solution" as required by the LOSC in EEZ delimitation[1297] can be provided by a median line. It is also of note that this median line was drawn ignoring Pulau Jarak[1298] only giving this small island 12 nautical miles of territorial sea. Similarly, Pulau Perak was also ignored and was not considered as a valid basepoint in constructing the median line. Consequently, Pulau Jarak, in Indonesia's proposal, is semi-enclaved and Pulau Perak does not have any effect on the equidistance-based line. In constructing the proposed line, Indonesia apparently gave

[1296] Illustration by the author.
[1297] LOSC, Article 74.
[1298] Pulau Jarak is located at 03° 58' 40" N, 100° 06' 06" E with a size of only 0.08 square kilometres an uninhibited. See: Malaysia Beneath the Waves, accessed from <http://www.mir.com.my/potpourri/places/mpwong/destination/pulau_jarak.htm> on 14 October 2011

full effect to its archipelagic baselines by utilising points along the baseline, not only basepoints or turning points between straight segments.

Indonesia's unilateral maritime claim in the Malacca Strait is depicted in the *Peta NKRI*,[1299] which is updated annually. In addition to *Peta NKRI*, Indonesia's unilateral clam is also represented by the Map of Fisheries Management Area or WPP (see subsection 8.2.2) and Indonesia's claim is included in WPP 571. The outer limits of WPP 571, as shown on the accompanying map, not unsurprisingly, coincide with Indonesia's territorial sea or EEZ limits, either agreed, unilaterally-defined or unilaterally-claimed. Fishing activities conducted by Indonesian fishermen are based on the WPP map. The outer limits of WPP-571 are Indonesia's unilateral claim for EEZ as depicted in Figure 8.3.

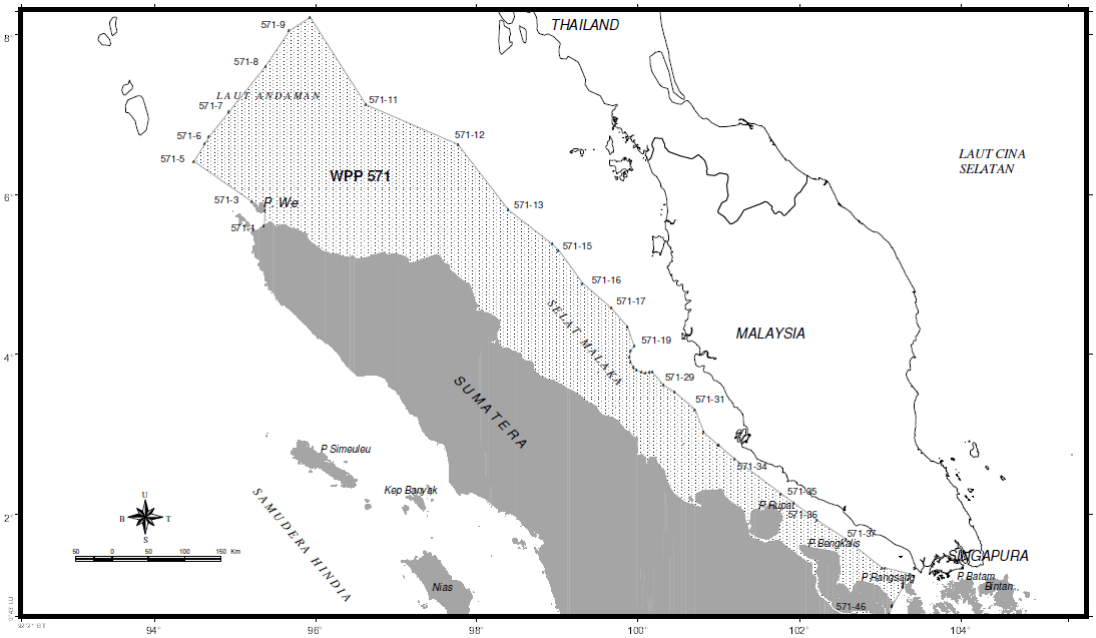

Figure 8.3. WPP 571, Indonesia's Unilateral Claim in the Malacca Strait[1300]

Figure 8.3 clearly illustrates that Indonesia's WPP 571 follows Indonesia, unilateral claim of EEZ boundaries. This is also confirmed by comparing coordinates of turning points of WPP 571 limits and those of Indonesia's EEZ unilateral boundaries. Apparently, the WPP map was generated based on *Peta NKRI*[1301] published in 2008, which already depicted Indonesia's forward position regarding its EEZ in the Malacca Strait. It is worth noting that Indonesia publishes official maps showing its claimed

[1299] *Peta NKRI*, see above note 640.
[1300] The map is part of Appendix II of the Ministry of Marine Affairs and Fisheries (MMAF)'s Regulation number 1 of 2009.
[1301] *Peta NKRI*, 2008, see above note 640.

boundaries virtually every year and sometimes with significant changes. In the case of the South China Sea, for example, Indonesia made a substantial amendment on the 2010 map as it was found that its EEZ claim depicted in the 2009 map was incorrect since it was excessively beyond what Indonesia's entitled to (see Chapter 5 subsection 5.2.3). However, for the case of the Malacca Strait, Indonesia's forward position has been consistent, at least since 2008, so that WPP 571 is in accordance with the latest *Peta NKRI*.[1302]

8.3.2 Malaysia's Claim

Malaysia's claim over maritime areas was made for the first time in 1966 when it issued Continental Shelf Act 1966[1303] stating that the definition of Malaysia' continental shelf is in accordance with the 1958 Continental Shelf Convention. It stated that continental shelf "lies at a depth no greater than two hundred metres below the surface of the sea, or, where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas, at any greater depth."[1304] Following this 1966 Act, Malaysia officially declared its claim over a 12 nautical miles of territorial sea through the Government of Malaysia's Ordinance No. 7 of 2 August 1969 (Chapter 6, subsection 6.3.2).[1305] The declaration was followed by the issuance of *Peta Baru* 1979 depicting the extent of its maritime claims (territorial sea and continental shelf) in two sheets of maps.[1306] Malaysia's claim to EEZ rights was declared through its Economic Zone Act 1984 [Act 311], two years after the LOSC was opened for signature. In 2006, Malaysia also promulgated Act Number 660 concerning Baselines of Maritime Zones Act 2006 (see Chapter 6, subsection 6.3.2.1).[1307]

The geospatial extent of Malaysia's maritime claims is depicted in its 1979 Map. For the maritime area of the Malacca Strait, the 1979 map shows the limits of continental shelf, which coincides with the 1969 agreed line with Indonesia for that zone of

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[1302] *Peta NKRI*, 2013, see above note 640.
[1303] Laws of Malaysia, Act 83, Continental Shelf Act 1966, available at <http://www.agc.gov.my/Akta/Vol.%202/Act%2083.pdf>, on 20 August 2013.
[1304] Continental Shelf Act 1966, Article 2.
[1305] Emergency (Essential Powers) Ordinance, No. 7, 1969, as amended in 1969 (hereinafter Malaysia's 1969 Ordinance), available at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/MYS_1969_Ordinance.pdf>, on 20 July 2013.
[1306] The 1979 map, also called *Peta Menunjukkan Sempadan Perairan dan Pelantar Benua* Malaysia [Map Showing the Territorial Waters and Continental Shelf Boundaries of Malaysia], was published by the Malaysian Directorate of National Mapping in two sheets, 21 December 1979, on file with the author.
[1307] Act 660, see above note 957.

jurisdiction. In addition, the map also shows the outer limits of the territorial sea and this indicates that Malaysia does not employ normal baselines in defining such territorial sea (see Figure 8.2). This is essentially because straight line territorial sea limits are depicted on the 1979 map – limits that can only be derived from straight baselines. Malaysia's baselines can be inferred from the 1979 map by drawing a line at a distance of 12 nautical miles landward from the straight outer limits of territorial sea shown on the 1979 Map. A geospatial analysis undertaken during this research shows that Malaysia designated straight baselines, one segment of which connects Pulau Jarak and Pulau Perak with a distance of around 125 nautical miles. Malaysia has never officially defined the location of its straight baselines and the baselines for example through issuing a list of geographical coordinates of turning point, or via an illustrative map and further, were not depicted in its 1979 map either.

The designation of straight baselines is also not impossible for Malaysia, as indicated in the 660 Act.[1308] Even though Malaysia has yet to declare specific basepoints and baselines, the 660 Act clearly states that

> "the method of straight baselines interpreted as geodesics joining the consecutive geographical coordinates of base points so declared may be employed for determining the maritime zones of Malaysia."[1309]

However, as Malaysia is a party to the LOSC, the designation of straight baselines must be in accordance with Article 7 of the LOCS. One of two geographical distinctions need to be fulfilled for the application of straight baselines, which are the coast has to be "deeply indented and cut into"[1310] or a "fringe of islands" in "the immediate vicinity" of the coast must exist.[1311] Malaysian coast apparently does not satisfy the first requirement as it is not deeply indented and cut into.[1312] For the second criteria, there certainly exist a number of islands along its immediate vicinity such as Pulau Langkawi, Pulau Pinang, Pulau Pangkor and Kepulauan Sembilan with Pulau Angsa (see Figure 8.1). Whether these islands justify the designation of the straight baselines that Malaysia appears to have defined is questionable. Haller-Trost argues that should Malaysia choose the "most favourable interpretation" of the relevant provision in the LOSC it

[1308] Act 660, see above note 957
[1309] Act 660, Article 5 (2).
[1310] LOSC, Article 7 (1).
[1311] LOSC, Article 7 (1)
[1312] R. Haller-Trost, The Contested Maritime and Territorial Boundaries of Malaysia: An International Law Perspective (London: Kluwer Law International Ltd, 1998), p. 85.

could designate straight baselines, the configuration of which is different and considerably more conservative than its current implied baselines with a segment connecting Pulau Jarak and Pulau Perak.[1313] A possible configuration of straight baselines consistent with article 7 of the LOSC is illustrated in Figure 8.4.[1314]

Figure 8.4. Implied and Alternative Baselines of Malaysia in the Malacca Strait[1315]

The above alternatives of baselines were proposed by implementing Article 7 of the LOSC with different interpretations. Alternative 3, according to Haller-Trost is "less controversial and more balanced" option compared to alternative 1 and 2 for Malaysia.[1316] However, this alternative list is not exhaustive since Article 7 can be

[1313] R. Haller-Trost, The Contested Maritime and Territorial Boundaries of Malaysia: An International Law Perspective (London: Kluwer Law International Ltd, 1998), p. 85
[1314] R. Haller-Trost, The Contested Maritime and Territorial Boundaries of Malaysia: An International Law Perspective (London: Kluwer Law International Ltd, 1998), p. 85-90.
[1315] Illustration by the author based on Haller-Trost's suggestion.
[1316] R. Haller-Trost, The Contested Maritime and Territorial Boundaries of Malaysia: An International Law Perspective (London: Kluwer Law International Ltd, 1998), p. 88.

interpreted in countless ways and has been applied in a widely varyingly by coastal States.[1317]

For EEZ entitlement, similar to Indonesia, Malaysia also proposes its own unilateral claim. As previously mentioned, EEZ delimitation is required in the Malacca Strait for its breadth in the entirety is less than 400 nautical miles. Unlike Indonesia that proposes a different line for EEZ boundary from the seabed boundary, Malaysia proposes a single line delimiting both EEZ and the continental shelf.[1318] In other words, the proposed EEZ line by Malaysia coincides with the existing seabed boundary signed in 1969.[1319] Apparently, this proposal addresses practicability concerns in that management is relatively easier when there is only one line dividing seabed and water column in the same location. It is however, not imperative to have a single line for EEZ and continental shelf. Indonesia and Australia, for example, agreed upon two different lines for EEZ and seabed in the Timor Sea.[1320] Accordingly, Malaysia does not propose any new line delimiting EEZ (water column) since the proposed line is exactly the same as seabed boundary depicted in its 1979 map.

8.3.3 Overlapping Claims

As previously outlined, territorial sea and continental shelf boundaries in the Malacca Strait between Indonesia and Malaysia are not contentious. The only pending delimitation concerns EEZ rights. Accordingly this subsection will only deal with overlapping claims relating to the EEZ.

Due to the respective unilateral claims for EEZ boundaries by Indonesia and Malaysia (see subsection 8.3.1 and 8.3.2), the area enclosed by overlapping claims encompasses approximately 14,300 square kilometres as illustrated by Figure 8.5. The size of

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[1317] R. Haller-Trost, The Contested Maritime and Territorial Boundaries of Malaysia: An International Law Perspective (London: Kluwer Law International Ltd, 1998), p. 84.

[1318] Upon its ratification to LOSC on 14 October 1996, Malaysia declared that "...if the maritime area is less [than] or to a distance of 200 nautical miles from the baselines, the boundary for the continental shelf and the exclusive economic zone shall be on the same line (identical)". See, United Nations Convention on the Law of the Sea: Declarations made upon signature, ratification, accession or succession or anytime thereafter (Malaysia). Available at <http://www.un.org/depts/los/convention_agreements/convention_declarations.htm#Malaysia%20Upon%20ratification>.

[1319] For a complete documentation of the agreement, see, Park, Choon-ho., (1993), Indonesia- Malaysia (Continental Shelf) in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1025-1027, Martinus Nijhoff Publisher, the Netherlands.

[1320] Herriman, M. and M. Tsamenyi. 1998., "The 1997 Australia-Indonesia maritime boundary treaty A Secure Legal regime for offshore resource development?", *Journal of Ocean Development and International Law* 29: 361-396.

overlapping EEZ area is considerable large for such a busy strait as the Malacca Strait where certainty of maritime jurisdiction is considered vital for safety of navigation. In addition, the overlapping area is also a fishing ground where fishermen from Indonesia and Malaysia harvest marine living resources. Figure 8.5 show overlapping claims between Indonesia and Malaysia in the Malacca Strait.

Figure 8.5. Overlapping Claims between Indonesia and Malaysia in the Malacca Strait[1321]

Figure 8.5 clearly shows that there is a large overlapping EEZ between Indonesia and Malaysia in the Malacca Strait. As no EEZ boundaries have been settled in the area, both States conduct activities based on their respective claim lines. Patrolling officers from each State use their unilateral claims as the basis to define where the patrols have to be performed. Indonesian patrolling officers generally consider that waters on the Indonesian side of the claimed EEZ line fall within Indonesia's jurisdiction. Similarly,

[1321] Illustration by the author.

Malaysian patrolling officer use the 1969 boundary line as a guidance and believe that all waters on the Malaysian side of the 1969 line are under Malaysia's jurisdiction. Meanwhile, fishermen from both States often come to fish in the overlapping area, leading to incidents (see section 8.5).

8.4 Indonesia-Malaysia Settled Maritime Boundaries in the Malacca Strait

As noted in Chapter 4, Indonesia started maritime boundary negotiations with its neighbours in the 1960s. With respect to maritime delimitation in the Malacca Straits area, several agreements have been reached which serve to frame the area and issues under consideration in this Chapter. Figure 8.6 shows Indonesia's settled maritime boundaries in the Malacca Strait with Malaysia. It also shows Indonesia's maritime boundaries with Thailand and India.

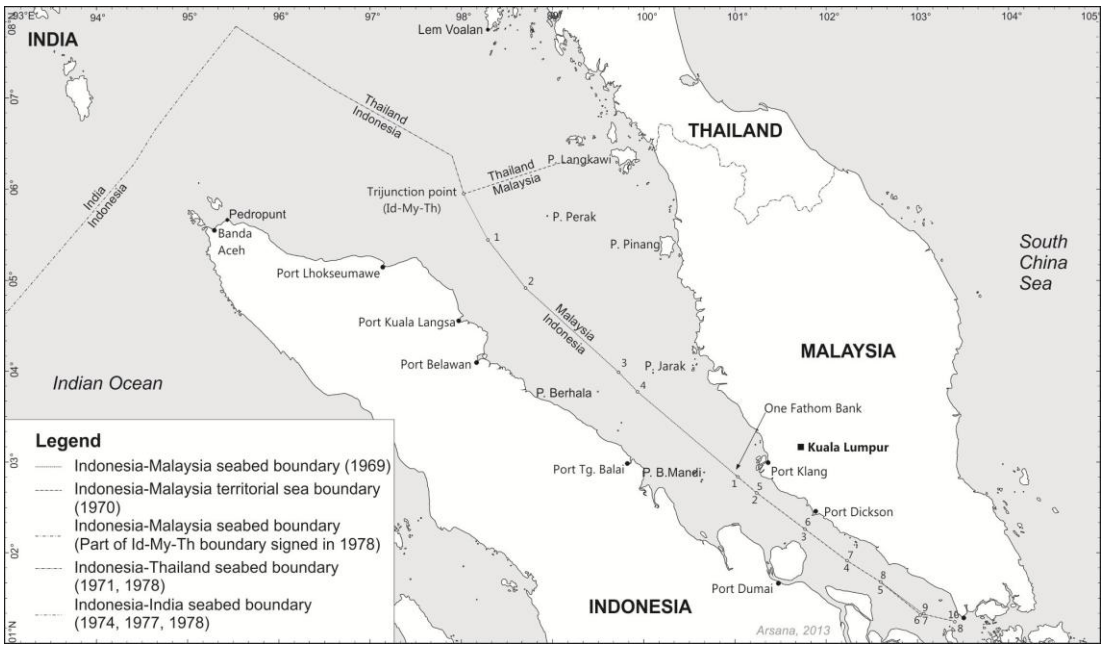

Figure 8.6 Settled Maritime Boundaries in the Malacca Strait[1322]

Indeed, the first maritime boundary agreement Indonesia ever reached was with Malaysia, including partial continental shelf delimitation in the Malacca Strait. This treaty delimited a seabed boundary with Malaysia in the Malacca Strait and South China Sea and was signed on 27 October 1969 (see Chapter 4, section 4.4).[1323] The second agreement between Indonesia and Malaysia that is directly relevant to the analysis

[1322] Illustration by the author.

[1323] For a complete documentation of the agreement, see: Park, Choon-ho. 1993. Indonesia- Malaysia (Continental Shelf) in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1025-1027, Martinus Nijhoff Publisher, the Netherlands.

undertaken in this chapter is the territorial sea boundary in the Malacca Strait signed on 17 March 1970 in Kuala Lumpur.[1324]

Apparently, the seabed boundary signed in 1969 was achieved through the construction of an equidistance line between Indonesia's archipelagic baselines and Malaysia's suspected claimed but unpublished straight baselines. A geospatial analysis conducted using CARIS LOTS[1325] shows clearly that the 1969 line is largely coincident with a median line constructed by giving full effect to Indonesia's archipelagic baselines and Malaysia's straight baselines connecting Pulau Jarak and Pulau Perak. This analysis indicates that Indonesia did at that time accept the use of those two small islands as basepoints and also a straight line segment connecting them as Malaysia's baselines. This has not, however, been confirmed by any official sources in the Indonesian government. Professor Hasjim Djalal who was involved in the negotiation of the 1969 boundary confirms at least part of this analysis that Indonesia did accept the use of Pulau Jarak and Pulau Perak but there has been no official recognition of Malaysia's straight baselines perhaps in part because Malaysia has yet to publish their location.[1326] Prof. Djalal further states that the seabed delimitation in 1969 was done mainly with two considerations/motivations. Firstly, it was in accordance with the definition of continental shelf as stated in the 1958 Continental Shelf Convention, where the depth criterion of up to 200 metres was used. Secondly it was for the purpose of securing an existing Mobile Oil concession issued by Indonesia in the Malacca Strait.[1327] Prof. Djalal added that, Indonesia was using outer islands as its basepoints and that, Indonesia also agreed for Malaysia to use its outer islands but Indonesia has never officially recognise Malaysia's straight baselines. Prof. Djalal also stated that he views that Indonesia's forward position regarding maritime boundaries as acceptable and accountable.[1328]

[1324] Oegroseno, 2009, see above note 2, p. 55

[1325] CARIS LOTS, a specially design geographic information system (GIS) software for limits and boundaries analysis. See www.caris.com. See, Chapter 1 subsection 1.7.

[1326] Personal communication in an informal interview with Professor Hasjim Djalal in Sydney on 12 August 2013.

[1327] *Ibid.*

[1328] Prof. Hasjim Djalal is also one of the advisors of the Indonesian delegation of maritime boundary delimitation who is regularly asked to give advice to the delegation member prior to negotiation with other States. Prof. Djalal, however, confirms that his role is to give advice and the rest is beyond his control.

8.5 Incidents in the Overlapping Claims Area

Competing maritime jurisdictional claims inevitably complicate the management of resources in the contested area, including regarding fisheries. Apparently, both Indonesia and Malaysia have been operating in the Malacca Strait, including fishing activities, as if the EEZ boundary has been established, in accordance with their respective unilateral claims. For instance, Malaysian fishermen have been fishing in the water beyond its territorial sea claimed (depicted in the 1979 Map) to the 1969 seabed boundary line. Similarly, Indonesian fishermen also come to fish in the water beyond its territorial sea up to its unilaterally claimed EEZ boundary line. While such activities are consistent with their respective unilateral claims, they nonetheless do take place in disputed waters, something that almost inevitably leads to incidents which provide a source of friction in bilateral relations.

Malaysia's fishermen have frequently been apprehended by Indonesia's maritime enforcement agencies in this disputed area, something that also happens to Indonesian fishermen where they are likewise interdicted by Malaysian marine security forces. The Malaysian fishermen, especially those from Hutan Melintang, located on the western coast of Peninsular Malaysia, are understood to be attracted to fish in the disputed waters in the Malacca Strait because of the depletion of fish stocks in Malaysian waters, as compared with the relatively underexploited resources towards the Indonesian 'side' of the Malacca Strait.[1329] Adding further problems to this already complex scenario, the fishermen concerned are reported to have been prone to utilising environmentally-unfriendly equipment such as bottom trawls to exploit the fisheries resources in the area in dispute.[1330] However, the use of bottom trawls is generally considered to be largely unselective in terms of fish catches and destructive for the seabed.[1331] Consequently, this type of fishing in the Malacca Strait (as well as elsewhere) can be considered to be to ecologically unsustainable. On the other hand, Indonesian fishermen, who fish in

[1329] Num, M.J. 2009. Pirates, Barter Traders, and Fishers: Whose Rights, Whose Security? User Conflicts and Maritime Nontraditional Security in Malaysian Waters in Laipson, E. and Pandya, A. The Indian Ocean - Resource and Governance Challenges, The Henry L. Stimson Center, Washington, p. 21
[1330] Above note 825
[1331] Stiles, M. L., Stockbridge, J., Lande, M., & Hirshfield, M. F. (2010). Impacts of Bottom Trawling.

accordance to WPP Map the same area, are similarly also frequently captured by Malaysian patrolling officers.[1332]

A notable example of the type of incident that can arise, and indeed has repeatedly arisen, in the area of overlapping EEZ claims in the Straits of Malacca between Indonesia and Malaysia is an incident which took place on 7 April 2011. This particular incident involved fishing vessels with Malaysian flag, Indonesian patrolling officials on board a patrol vessel belonging to the Ministry of Marine Affairs and Fisheries and three Malaysia helicopters (two of Maritime Malaysia and one of Tentera Laut Diraja Malaysia).[1333] The Indonesian patrolling team identified two vessels fishing allegedly illegally in Indonesia's EEZ. The two vessels were apprehended, and directed to proceed towards Indonesia. Subsequently, three Malaysian helicopters appeared overhead and via radio communications the Malaysian side instructed that the two vessels be released forthwith. As the Malaysian vessels had been seized within Indonesia's claimed maritime zone in the Malacca Strait, the Indonesian officials concerned disregarded this demand and continued with their operations. The two vessels were duly brought to Belawan Port in Indonesia and fishermen operating the vessels were detained.[1334]

Even though, from an Indonesian perspective at least, this may be seen as a successful effort by the Indonesian officials in preventing foreign fishermen from fishing illegally in Indonesian waters, Malaysia's response by sending three helicopters did spark reactions from Indonesia media.[1335] As anticipated, the issue was highly debated in Indonesia and was prominently featured in national news headlines. The relevant news coverage on the part of the Indonesian media generally analysed non-technical and/or legal aspects of the maritime boundary and jurisdictional issues either generally or specific to the Malacca Strait were predominantly sensationalised and the apparently

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[1332] See for example, Apriadi Gunawan, Malaysia arrests 4 Indonesians Fishermen, The Jakarta Post, 7 October 2011, available at <http://www.thejakartapost.com/news/2011/10/07/malaysia-arrests-4-indonesian-fishermen.html>, on 20 August 2013.

[1333] MMAF. 2011. Press Release: Again, illegal fishing vessels seized [*Kembali, kapal illegal fishing ditangkap*]. Available at <http://www.kkp.go.id/index.php/mobile/arsip/c/4336/KEMBALI-KAPAL-ILLEGAL-FISHING-DITANGKAP/>

[1334] See above note 1333.

[1335] Antara News, MMAF: Provoking action will not stop sea monitoring [*KKP : Hambatan Provokasi Tidak Surutkan Pengawasan Laut*], available at <http://www.antaranews.com/news/253940/kkp--hambatan-provokasi-tidak-surutkan-pengawasan-laut>, on 23 August 2013; Viva News, Three Malaysian helicopters provoked Indonesia's patrolling activities [*3 helikopter Malaysia provokasi patrol RI*], available from <http://us.nasional.news.viva.co.id/news/read/214035-3-helikopter-malaysia-provokasi-patroli-ri>, on 23 August 2013.

conflict-prone relationship between Indonesia and Malaysia was highlighted. In general, maritime boundary dispute were often frequently linked to other issues, which in direct terms at least have nothing to do with the maritime dispute, such as the allegedly unlawful treatment of a number of Indonesian maids on the part of their Malaysian employers.[1336]

By analysing the coordinates of the fishing vessels in question relative to the claims of the parties,[1337] it becomes clear that the incident took place in an overlapping area of EEZ between Indonesia and Malaysia as illustrated in Figure 8.7. In fact, as already noted there has been no EEZ boundary agreed in the northern part of the Malacca Strait between the two States. In the absence of an agreed boundary, for the water column in question at least, it can be argued that no infringement of an international maritime boundary or illegal border crossing occurred. That said, both sides have advanced unilateral claims to maritime jurisdiction which overlap. Thus, viewed from an Indonesian perspective, the Malaysian-flagged vessels had allegedly committed an infringement given that they were apprehended on the Indonesian side of Indonesia's unilaterally-claimed EEZ boundary line. Likewise, the presence of Indonesian patrolling officials on the Malaysian side of Malaysia's unilaterally claimed was undoubtedly viewed as an infringement and violation of Malaysian waters by the Malaysian side.

[1336] See for example, Tempo, Malaysia NGOs condemn those that link the issues of Indonesian workers in Malaysia with Ambalat [*LSM Malaysia Kecam Pengaitan Isu TKI dengan Ambalat*], available at <http://www.tempo.co/read/news/2005/03/12/05557866/LSM-Malaysia-Kecam-Pengaitan-Isu-TKI-dengan-Ambalat>, on 20 August 2013.
[1337] Coordinates were obtained from a press release by MMAF. See above note 1333

Figure 8.7 Location of Incidents in the Malacca Strait on 7 April 2013[1338]

Indonesian officials apprehended the two Malaysian-flagged fishing vessels as shown in Figure 8.7 because they considered the EEZ boundaries in the Malacca Strait to be coincident with Indonesia's unilateral maritime claims. On the other hand, the Malaysian helicopter team inevitably took the view that the fishing vessels in question were operating quite legitimately within the Malaysian EEZ because they based their operations on Malaysia's 1979 map showing Malaysia's unilateral claim. In line with this view, the helicopter team was likely to be of the view that the Indonesian patrolling vessel had entered the Malaysian EEZ. Put simply, both patrolling teams were operating based on their own maps which showed their respective unilateral claims in the absence of a bilaterally agreed maritime boundary line.

In response to the abovementioned incident, Indonesia insisted to conduct legal process to the captured fishermen before eventually releasing them to return to Malaysia. This incident is also an indication that pending maritime boundaries can be disadvantageous

[1338] Illustration by the author.

to fishermen operating around such areas. This appears to be one of the reasons why Indonesia and Malaysia eventually agreed on an MoU on how maritime enforcement agency/official should treat fishermen from both States if they are operating such areas where maritime boundaries have yet to be settled (see Chapter 6, subsection 6.5.4).

The aforementioned incidents demonstrate the desirability of having clarity and certainty in relation to maritime boundaries and therefore marine jurisdictional rights in the Malacca Strait. Further, as a result of lack of bilateral delimitation, coupled with the fact that these two States have different views regarding EEZ boundaries in the Malacca Strait, an overlapping claims area exists in the central part of the Strait. Ideally the two States could and should redouble their efforts to settle the dispute and delimit their EEZ boundary through the Malacca Strait. Such an delimitation could well serve to enhance management of the living resource of the Malacca Strait by clarifying jurisdictional and therefore regulation and enforcement rights. Indeed, soon after an agreement is achieved, it can be anticipated that Indonesia and Malaysia would be in a position to conduct significantly more effective utilisation and management of marine resources within area assigned to each of them. As stated in the LOSC, a State's EEZ would endow the State with "sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil".[1339] Alternatively, Indonesia and Malaysia have the option of considering some interim management measure with respect to the area of overlapping claims and its vulnerable resources – something that would be in keeping with the "provisional arrangements of a practical nature" envisaged under Article 74(3) of LOSC.

8.6 Proposing Maritime Delimitation in the Malacca Strait

As previously highlighted, the main purpose of this chapter is to provide options of maritime delimitation in the Malacca Strait between Indonesia and Malaysia. Indonesia and Malaysia have yet to delimit EEZ boundaries in the northern part of Malacca Strait. The core issue that is faced by Indonesia and Malaysia in delimitation negotiations with respect to this area is that the two States have contrasting positions on the location of the delimitation line for water column jurisdiction in the Malacca Strait (see subsection

[1339] LOSC, Art. 55 (1) (a).

8.3.3). The purpose of this section is to assess each claim and analysis possible final delimitation lines between Indonesia and Malaysia.

The following subsections discussed the legal basis for the delimitation, baselines issues, the role of existing agreements and delimitation options. To propose delimitation options, the three-stage approach is implemented as has also been applied in maritime delimitation analysis in Chapter 6 and as outlined in Chapter 1. The approach consists of three steps, which are construction of provisional median/equidistance line, adjustment of provisional line by considering relevant circumstances and disproportionality test to prevent the delimitation from causing inequality for parties in questions (see Chapter 6).

8.6.1 Legal Basis

As previously noted in Chapter 5, subsection 5.2.1, when the seabed boundary in Malacca Strait was signed by Indonesia and Malaysia in 1969, the concept of EEZ had not yet been recognised in the international law of the sea (see Chapter 2, subsection 2.4.5). The EEZ concept was adopted formally for the first time under LOSC in 1982.[1340] Accordingly, at the time when the 1969 seabed agreement was signed, Indonesia and Malaysia did not sign any other agreement concerning water column delimitation in the Malacca Strait beyond territorial sea of each State. Through the general acceptance and codification of the EEZ concept in the LOSC, coupled with the claiming of EEZs on the part of both Indonesia and Malaysia,[1341] a delimitation of EEZ in the Malacca Strait became possible. Considering that the greatest distance between the coastline of Malaysia and that of Indonesia in Malacca Strait is less than 200 M,[1342] EEZ delimitation is required for the whole area of Malacca Strait, from the northern part up the southern part to the point where is narrows to 24 nautical miles distance between opposing coasts. In the southern part where the distance between the two States is less

[1340] For more information regarding the development of LOSC, see: The United Nations Convention on the Law of the Sea (A historical perspective). Available from <http://www.un.org/Depts/los/convention_agreements/convention_historical_perspective.htm>

[1341] Indonesia made a claim over EEZ through the Act No. 5 of 1983 and Malaysia declared its claim over EEZ through Economic Zone Act 1984 [Act 311].

[1342] Measurement is on British Admiralty Chart Number 2760 (measured from mainland coast of both States)

than 24 M,[1343] delimitation of territorial sea is also required, something which was achieved in 1970.

Again, as previously noted, EEZ delimitation is governed by Article 74 of the LOSC consisting of four paragraphs. EEZ delimitation is aimed at achieving "an equitable solution" based on "international law, as referred to in Article 38 of the Statute of the International Court of Justice."[1344] If the States in question fail to make an agreement "within a reasonable period of time," they shall conduct a settlement of dispute as provided for in Part XV.[1345] Article 74 also governs that States in question shall attempt to establish a "provisional arrangements of a practical nature", which "shall be without prejudice to the final delimitation."[1346] It is worth noting, as highlighted in Chapter 2, that if there is an existing agreement between States in question, the new EEZ agreement "shall be determined in accordance with the provisions of that agreement."[1347]

One important thing in Article 74 of LOSC is that it does not specify any method to achieve the so-called "equitable solution". It can be inferred from this provision that the method can be anything as long as it is accepted by States in question and the rights of other States are not infringed. However, there are methods that the States in question can employ to facilitate the achievement of the solution such as use of an equidistance line or median line. It is worth noting that the principle of equidistance tends to produce an equal division of maritime space, at least where baselines on each side are equivalent to one another. While an equal division of maritime space is not necessarily equitable, in many cases it certainly can serve as an equitable solution.[1348] In addition, use of an equidistance or median line has relatively high degree of certainty since it is generated based on the application of strict geometric principles, provided that the parties in question agree on the baselines involved in the delimitation.[1349]

Another provision to consider from Article 74 is that Indonesia and Malaysia shall attempt to establish a provisional agreement in the Malacca Strait if they cannot achieve

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[1343] *Ibid.*
[1344] LOSC, Article 74 (1).
[1345] LOSC, Article 74 (2).
[1346] LOSC, Article 74 (3).
[1347] LOSC, Article 74 (4).
[1348] Prescott, JRV. and Schofield, C. 2005, see above note 252, p. 236
[1349] Beazly, P. B. 1994. Technical Aspects of Maritime Boundary Delimitation, Maritime Briefing, Vol. 1/2, International Boundary Research Unit: Durham.

a solution within a reasonable period of time. However, it is not clear how Indonesia and Malaysia should define the phrase "reasonable period of time". This is certainly subjective and it is up to the States in question to agree on this issue. It seems that both States have not seen that they have passed a reasonable period of time without agreed EEZ in the Malacca Strait since they have not established any provisional agreement.

8.6.2 Baselines Issues

The 1969 seabed boundary between Indonesia and Malaysia in the Malacca Strait is, as noted in Chapter 4, not consistent with the equidistance line measured from the coasts of each States and is, instead located further to the south and west to Malaysia's advantage. While this situation might not be viewed as being equitable, since the boundary line lies considerably closer to Indonesia than an equidistance line would place it, nonetheless, it must be recognised that Indonesia freely entered into the bilateral treaty and is bound by its terms.

As discussed in subsection 8.6.3 concerning the existing continental shelf agreement between Indonesia and Malaysia, the 1969 agreement was apparently achieved by employing equidistance line by giving full effect to Indonesia's archipelagic baselines and a straight baselines segment of Malaysia's connecting Pulau Jarak and Pulau Perak. However, there is no official publication of Malaysia's straight baselines and scholars usually only infer the use of such straight baselines.[1350] Geospatial analysis conducted in this research using Geographic Information System tools and geospatial data (chart) confirms that the so-called implied/inferred baselines of Malaysia's was the one used in the 1969 delimitation. As previously discussed, these baselines are inferred from the outer limits of Malaysia's territorial sea as depicted in its 1979 map.[1351] The location of baselines can be inferred by pulling lines at a distance of 12 nautical miles from the outer limits of territorial sea landward. It shows that Malaysia is suspected to employ straight baselines connecting, among others, Pulau Perak and Pulau Jarak, two small islands located in the Malacca Strait at around 80 and 36 nautical miles from the Malaysian peninsula, respectively.[1352]Apart from these implied/inferred baselines, Malaysia also has more recent baselines legislation adopted in 2006 (Act 660, see

[1350] Forbes, V. L. 1995, see above note 85, p. 22. See also: Valencia, M. J., 2003, Validity of Malaysia's baselines and territorial sea claim in the northern Malacca Strait, Marine Policy Vol. 27 pp. 367-373
[1351] See, Valencia, M. J., 2003, above note 1350, p. 369
[1352] Measurement on British Admiralty Chart Number 2760.

subsection 8.3.2) but has, as at the time of writing (November 2013), not published a list of coordinates or map of the location of its straight baselines. The Act 660, however, clearly indicates the possibility for Malaysia to designate straight baselines when required.[1353]

With regard to the implied straight baselines connecting Pulau Jarak and Pulau Perak, A detailed analysis by Valencia reveals that the baselines of Malaysia in the Malacca Strait are invalid for several reasons. This analysis stated that the designations of such baselines and territorial sea claims as depicted in the 1979 are invalid because they have "breached both the 1958 Geneva Convention and the Vienna Law of Treaties Convention." Valencia views that the designation of the implied baselines is a modification that Malaysia should notify the State parties of the 1958 Geneva Convention as required by the Vienna Law of Treaties Convention. [1354] Valencia went to state that the basepoints and baselines used "do not conform to 1982 UNCLOS Article 7."[1355] In addition, the designations and claims "restricted the rights of third-party states".[1356] Malaysia, according to the analysis, also published public documents and undertook actions inconsistent with its claims.[1357] A proposal that may be a solution to the aforementioned issues was proposed by Haller-Trost regarding Malaysia's possible straight baselines (see subsection 8.3.2). Haller-Trost proposed the application of article 7 of the LOSC in designating Malaysia's straight baselines in the Malacca Strait as depicted in Figure 8.4. In the delimitation of pending maritime boundaries in the Malacca Strait, this issue of baseline is one of the important aspects to consider.

With regards to Indonesia's baselines, as previously stated, archipelagic baselines have been designated for the entire Indonesian Archipelago including on the Indonesian coast fronting the Malacca Strait. Relevant Indonesian baselines in the Malacca Straits are segments connecting basepoints TD.181A, TD.182, TD.183, TD.184, TD.185, and TD.186 as illustrated in Figure 8.8. Indonesian baselines have been deposited to the United Nations and there has not been any protest, especially, regarding the parts on the coast fronting the Malacca Strait. It can be inferred from this absence of protest that no State objects Indonesia's designated baselines in the Malacca Strait. Accordingly, it is

[1353] Act 660, Article 5 (2).
[1354] See Above note 1350, p. 372.
[1355] See, Valencia, M. J., 2003, above note 1350, p. 367.
[1356] *Ibid.*
[1357] Above note 825, p. 367.

acceptable to say that the use of archipelagic baselines for Indonesia in maritime boundary delimitation in the Strait of Malacca is acceptable even though the use of other types of baselines is also possible.

8.6.3 The Role of Existing Agreements

As previously mentioned, there are seabed and territorial sea boundaries in the Malacca Strait between Indonesia and Malaysia signed in 1969 and 1970 respectively. Pending maritime boundaries are only for EEZ at the northern part of the Malacca Strait where seabed boundary has already been in place. With regard to the EEZ delimitation LOSC governs that that EEZ should not be in violation to existing agreement.[1358] This does not seem to be applicable to Indonesia and Malaysia EEZ delimitation in the Malacca Strait. The 1969 agreement relates to delimitation of a continental shelf, that is solely seabed and subsoil, boundary and it has nothing to do with delimitation of the water column agreement. Therefore, the 1969 agreement need not necessarily be used in any way to dictate the future agreement on the water column portion of an EEZ agreement. Having had a seabed agreement in place, it is worth emphasising that the future EEZ agreement will solely deal with water column even though theoretically EEZ, according to the LOSC, also encompasses seabed.[1359] Accordingly, the existing agreement will eventually affect the future EEZ agreement in a sense that the agreed EEZ boundary will not govern seabed area and resources therein. It is worth noting however, that even though the existing seabed agreement shall not affect future EEZ agreement, in this sense, certain relevant considerations that were taken into account in the delimitation of the 1969 boundary may also be viewed as relevant to be considered in the future EEZ delimitation.

8.6.4 Delimitation Options

Maritime delimitation analysed in this chapter is for the northern part of the Malacca Strait so the focus is EEZ delimitation (see subsection 8.2.1). For the purpose of this research, a three-stage approach is applied as described in Chapter 6 and 7. The approach consists of three steps, which are constructing a provisional delimitation line based on equidistance, adjusting the provisional line by considering relevant circumstances, and conducting a disproportionality test. The final step is to ensure that

[1358] LOSC, Article 74 (4).
[1359] LOSC, Article 55 (1) (a).

the result does not cause inequality for the parties in question. The following subsections discussed options of maritime delimitation based on the three-stage approach.

8.6.4.1 Constructing Provisional Delimitation Lines

The first step in the three-stage approach is constructing provisional delimitation lines base on equidistance. In the case of the Malacca Strait, the use of baselines and the roles of smalls fringing islands are two of the main factors in affecting the provisional line. As it was the case in the Sulawesi Sea and Singapore Strait (Chapter 6 and 7), there are several different options for provisional lines in the Malacca Strait. Figure 8.8 illustrates different possibilities of the provisional lines by using different types of baselines for Indonesia and Malaysia and considering the roles of fringing islands of Indonesia's and Malaysia's.

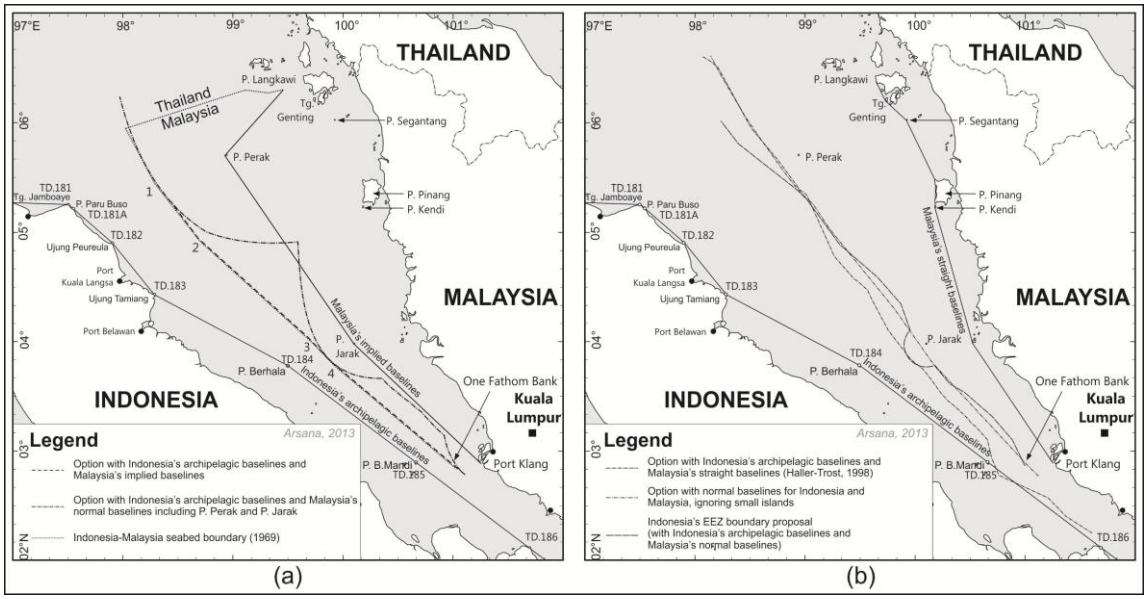

Figure 8.8 Options of Provisional Equidistance/Median Lines in the Malacca Strait[1360]

Figure 8.8 (a) illustrates two different options for provisional median line. The first option involves the use of Indonesia's archipelagic baselines and Malaysia's implied baselines (see subsection 8.6.2). This option is worth analysing for it has been indicated that Malaysia's implied baselines were considered in the 1969 seabed delimitation (see 8.4). Accordingly, it would not be surprising if Malaysia also proposed the use of the same baselines in the delimitation of the EEZ with Indonesia in the same area. The provisional median line constructed using Indonesia's archipelagic baselines and

[1360] Illustration by the author.

Malaysia's implied baselines is highly similar to the 1969 seabed boundary in the Malacca Strait. At the scale shown by Figure 8.8 (a), the difference between the constructed line and the 1969 line is hardly noticeable due to their high degree of similarity. This further strengthens the previous analysis indicating Indonesia's acceptance of Malaysia's straight baselines connecting Pulau Perak and Pulau Jarak. However, it is worth noting that Indonesia has never officially declared such recognition. In addition, Malaysia, for its part, has yet to official declare any types of baselines other than normal (see section 8.6.2).

The second option as shown in Figure 8.8 (b) is a line constructed by considering Indonesia's archipelagic baselines and Malaysia's normal baselines of Pulau Perak and Pulau Jarak. The two small islands are given full effect in constructing the provisional line. However, the difference compared to the previous option is that there is no straight baselines segment connecting the two islands. Consequently, the median line constructed in this option is significantly different from the line in the first option. Due to the use of Indonesia's straight line segment connecting Ujung Tamiang (TD.183) and Pulau Berhala (TD.184), and the absence of straight baselines connecting Pulau Perak and Pulau Jarak on the Malaysian side, the median line is significantly pushed towards Malaysia's Pulau Pinang (see Figure 8.8 (a)). The line forms a two large 'pockets' or bulges enclosing Pulau Perak and Pulau Jarak for the two islands are given full effect in constructing the medial line.

Two other options of provisional equidistance line are shown in Figure 8.8 (b), which become the third and fourth option in this case. The third option is the one constructed using Indonesia's archipelagic baselines and Malaysia's alternative straight baselines designated in accordance with an interpretation of Article 7 of the LOSC. Due to flexible interpretation of Article 7 of the LOSC, there are indeed endless possibilities of straight baselines configuration and an alternative used in this research is one of the options proposed by Haller-Trost (see Figure 8.4). Apparently, this option can accommodate Indonesia's strong intention to use its archipelagic baselines for it is officially recognised as an archipelagic State and also Malaysia's desire to use straight baselines as it has already indicated in its Act 660 (see subsection 8.3.2). However, the straight baselines used are not the implied baselines as Malaysia would apparently prefer but, instead, the one that is "less controversial and more balanced" compared two other option proposed by Haller-Trost based on the interpretation of Article 7 of the

LOSC (see subsection 8.3.2).[1361] It is found that the third option is closely in line with Indonesia's unilateral claim of EEZ boundary lines (see subsection 8.3.1). Only certain parts of Indonesia's unilateral claim lies on the Malaysian side of the proposed provisional median line (the third option) as show in Figure 8.8 (b). As previously discussed, Indonesia's unilateral claim is based on a median line constructed using Indonesia's archipelagic baselines and Malaysia's normal baselines (see subsection 8.3.1). This third option reveals that the use of Malaysia's straight baselines that are designated in accordance with Article 7 of the LOSC do not cause much difference compared to the use of normal baselines.

The fourth option of provisional median/equidistance line is an option constructed using normal baselines for both Indonesia and Malaysia and ignoring all small islands. This may be viewed as a 'fair' option for the provisional line is generated using normal baselines, which are 'natural' in nature. Relying on normal baselines means relying on natural feature, which is coastline at low-water[1362] which can also be seen as a way out of a never ending process in relation to selecting one of the endless possibilities of Malaysia's straight baselines. However, Indonesia might not prefer this option for it ignores Indonesia's legitimately defined and already-declared archipelagic baselines.

While each and every option previously discussed can be claimed as justifiable, one provisional line needs to be chosen for the next step in the three-stage approach. There is no single rule to define which provisional line to choose in this case. That said, when international courts and tribunals have been faced by this issue in recent cases, they have tended to ignore straight baselines. However, it is important to note that international courts have both faced the issue of considering the role of archipelagic baselines in a delimitation case. Meanwhile, each party will undoubtedly propose the most advantageous option for its side. For the purpose of this study, option three of the above is selected to be analysed in the second step: adjusting the provisional line by considering relevant circumstances. The third option is selected to accommodate the use of archipelagic baselines for which Indonesia is legitimate and also to allow fairness for Malaysia also uses straight baselines.

[1361] R. Haller-Trost, The Contested Maritime and Territorial Boundaries of Malaysia: An International Law Perspective (London: Kluwer Law International Ltd, 1998), p. 88.
[1362] LOSC, Article 5.

8.6.4.2 Adjusted Lines

The provisional median line generated in the first step of the three-stage approach was evaluated to see whether or not it needed adjustment. In adjusting the line the role of small islands and relevant coast length were considered. Malaysia's Pulau Jarak and Pulau Perak are two islands worth to consider in adjusting the provisional line. Pulau Jarak, in particular is located close to the generated provisional line, at a distance of less than 12 nautical miles. This indicates that the island is not given minimum maritime area it is entitled to. Consequently, the provisional line needs adjustment to allow Pulau Jarak to have at least 12-nautical miles of territorial sea. This is also the case with Pulau Perak on the northern side of the Malacca Strait. However, the distance of the provisional line to Pulau Perak is close to 13 nautical miles so the adjustment required around Pulau Perak is not as significant as that of around Pulau Jarak. Figure 8.9 illustrates adjusted line between Indonesia and Malacca in the Malacca Strait.

Figure 8.9 Adjusted Line in the Malacca Strait[1363]

[1363] Illustration by the author.

Figure 8.9 shows that Pulau Jarak is semi-enclaved to give it 12-nautical miles of territorial sea. Being a relatively small island, Pulau Jarak should arguably not be granted what might be considered a disproportionate effect on maritime delimitation in the Malacca Strait. This view can be supported by reference to relevant international case law. The International Court of Justice has also decided numerous maritime boundary delimitation cases involving small islands/rocks such as the North Sea Continental Shelf case,[1364] Tunisia/Libya,[1365] Libya/Malta,[1366] and Qatar v. Bahrain.[1367] The decisions indicate that the equitableness of the maritime boundary resulting from the application of the equidistance line principle depends on whether the precaution is taken of eliminating the "disproportionate effect" caused by small features such as islets, rocks, and coastal projections along the coast.[1368] Based on the above precedents it can be suggested that was the issue to be decided by an international court or tribunal, Pulau Jarak would be awarded nil effect with respect to EEZ delimitation. Apparently, this approach is preferable to Indonesia and it is in line with its EEZ boundary proposal. Therefore, the existence of Pulau Jarak can modify the provisional median line in such a way so that the small island is semi-enclaved with a semi-circle measured from Pulau Jarak at a distance of 12 nautical miles. This is similar to EEZ delimitation between Indonesia and Australia in the Timor Sea in 1997. The existence of Pulau Pasir/Ashmore Reef modifies the equidistance line based on which the 1997 EEZ boundary was established. Ashmore reef causes the form of maritime pocket in such a way that the pocket is located on the Indonesian side of median line.[1369]

The second main consideration relates to the relevant coasts of Indonesia's and Malaysia's that affect the EEZ delimitation in the Malacca Strait. Since both States

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[1364] International Court of Justice. 1969. "North Sea continental shelf cases (Federal Republic of Germany/Denmark; Federal Republic of Germany/Netherlands), Judgement of 20 February 1969, The Hague, The Netherlands"; accessed from <http://www.icj-cij.org/docket/files/52/5561.pdf> on 21 September 2011.

[1365] International Court of Justice. 1982. "Case concerning the continental shelf (Tunisia/Libyan Arab Jamahiriya), Judgement of 24 February 1982, The Hague, The Netherlands", accessed from <http://www.icj-cij.org/docket/files/63/ 6267.pdf> on 22 September 2011.

[1366] International Court of Justice. 1985. "Case concerning continental shelf (Libyan Arab Jamahiriya/Malta), Judgement of 3 June 1985, The Hague, The Netherlands", accessed from <http://www.icj-cij.org/docket/files/68/ 9573.pdf> on 20 September 2011.

[1367] International Court of Justice. 2001. "Case concerning maritime delimitation and territorial questions between Qatar and Bahrain, Merits, Judgement of 16 March 2001, The Hague, The Netherlands", accessed from <http://www.icj-cij.org/docket/files/87/7027.pdf> on 24 September 2011.

[1368] Shi, J. 2010. "Maritime delimitation in the jurisprudence of the International Court of Justice, Chinese Journal of International Law Vol. 9 No. 2 (June): 271-291.

[1369] See for example: Prescott, JRV. 1997. "The completion of marine boundary delimitation between Australia and Indonesia", Geopolitics Vol. 2 No. 2 (Autumn): 132–149.

implement straight line type baselines (archipelagic or straight), the relevant coast of both States can be represented by straight baselines used in the delimitation. Indonesia's relevant coast is represented by archipelagic baselines segments connecting TD.181, TD.181A, TD.182, TD.183, TD.184 and TD.185 as illustrated in Figure 8.9, the length of which is approximately 260 nautical miles. For Malaysia, its relevant coast, in this case is represented by an alternative of straight baselines as proposed by Haller-Trost, the one used in the generation of the provisional median line (see Figure 8.9). Malaysia's relevant coast is approximately 236 nautical miles in length. This shows that the proportion is of coast length is 1.1:1 for Indonesia and Malaysia. Arguably, the proportion does not suggest further adjustment on the provisional median line. In summary, the adjustment of provisional line is only due to the role of small islands and coastal length is viewed as irrelevant. This view is supported by the Black Sea Case where the ratio of relevant coastal lengths for Romania and Ukraine is approximately 1:2.8 and the Court concluded, that coastal length disparity between Ukraine and Romania was not a relevant factor to shift the provisional line.[1370] In this case the ratio of Indonesia and Malaysia's relevant coast is closer to 1 to 1 than that of Ukraine and Romania so it is acceptable therefore that the disparity is not a relevant factor to shift the provisional medial line.

8.6.4.3 Disproportionality Test

The disproportionality test in the three-stage approach is aimed at ensuring the delimitation does not cause inequity in terms of maritime area assigned for each party as the consequence of the delimitation. The first step is to define the relevant maritime area for the delimitation followed by calculating the size of maritime area for each side as divided by the adjusted line produced in the previous step. Figure 8.10 illustrates relevant area subject to delimitation. The northern limit of the relevant area is the line connecting Tg. Jamboaye of Indonesia and a point on Pulau Langkawi of Malaysia. These two points were used because they are the northernmost points relevant in the delimitation. The eastern side of the relevant area is Malaysia's possible straight baselines, as proposed by Haller-Trost. The southern side of the relevant area is a straight line connecting a point on Malaysia's Port Klang and a point on Indonesia's baseline segment between TD.184 and TD.185 as seen in Figure 8.10. The western side

[1370] Black Sea Case, see above note 316, para. 168

of the area is Indonesia's baselines from point TD.181 to a point between TD.184 and TD.185.

The relevant area described above defined existing seabed boundaries and the absence of EEZ boundaries in the area. The southern side of the area is where EEZ delimitation should ideally start where the breadth of the Strait is more than 24 nautical miles. The northern side of the area was defined by drawing a line connecting basepoint relevant to the existing seabed boundaries between Indonesia and Malaysia and between Malaysia and Thailand. Figure 8.10 illustrates disproportionality test of maritime delimitation in the Malacca Strait.

Figure 8.10 Disproportionality Test of Maritime Delimitation in the Malacca Strait[1371]

Figure 8.10 shows the relevant area of the delimitation and maritime areas for Indonesia and Malaysia. It was found that Malaysia's maritime area is approximate

[1371] Illustration by the author.

ly 34700 square kilometres and Indonesia's is around 34,400 square kilometres. This makes the proportion of maritime area between Indonesia and Malaysia is in effect 1 to 1 (1:1) which is in accordance with the ratio of relevant coast length (1.1: 1). There is a slight disparity but it should not be viewed as a relevant factor to further adjust the delimitation line. Similar approaches have also been demonstrated in recent cases decided by either ICJ or ITLOS. In the Black Sea Case, for example, the Court compared the ratio of relevant coastal length and the ratio of maritime area assigned to Rumania and Ukraine. It was found that that the ratio of relevant coastal lengths for Romania and Ukraine was approximately 1:2.8 and the ratio of relevant maritime areas of the order of 1:2.1.[1372] The Court further concluded that the relatively small difference did not demonstrate disproportionality so no further adjustment was required to the delimitation line in the third stage.[1373] In the Bay of Bengal Case, the tribunal found that the ratio of maritime areas is 1 (Bangladesh) to 1.54 (Myanmar),[1374] and the ratio of the lengths of the relevant coasts is 1 (Bangladesh) to 1.42 (Myanmar).[1375] However, the tribunal held that there was no significant disproportion so no adjustment was required to the provisional line.[1376]

Compared to the unilateral claims of Indonesia's and Malaysia's the option offered in this research is closer to that of Indonesia's. As previously mentioned, this is certainly not the only option that Indonesia and Malaysia can consider in the future delimitation since the options are indeed endless and each option can be justified by certain reasons. With the three-stage approach demonstrated in this research, it is evident that the option shown in Figure 8.10 is in accordance with recent trend demonstrated by the ICJ or ITLOS in their decisions.

[1372] Black Sea Case, see above note 316, para. 212.
[1373] Black Sea Case, see above note 58, para. 216.
[1374] Bay of Bengal Case, see above note 327, para 499.
[1375] Bay of Bengal Case, see above note 327, para. 205.
[1376] Bay of Bengal Case, see above note 327, para. 499.

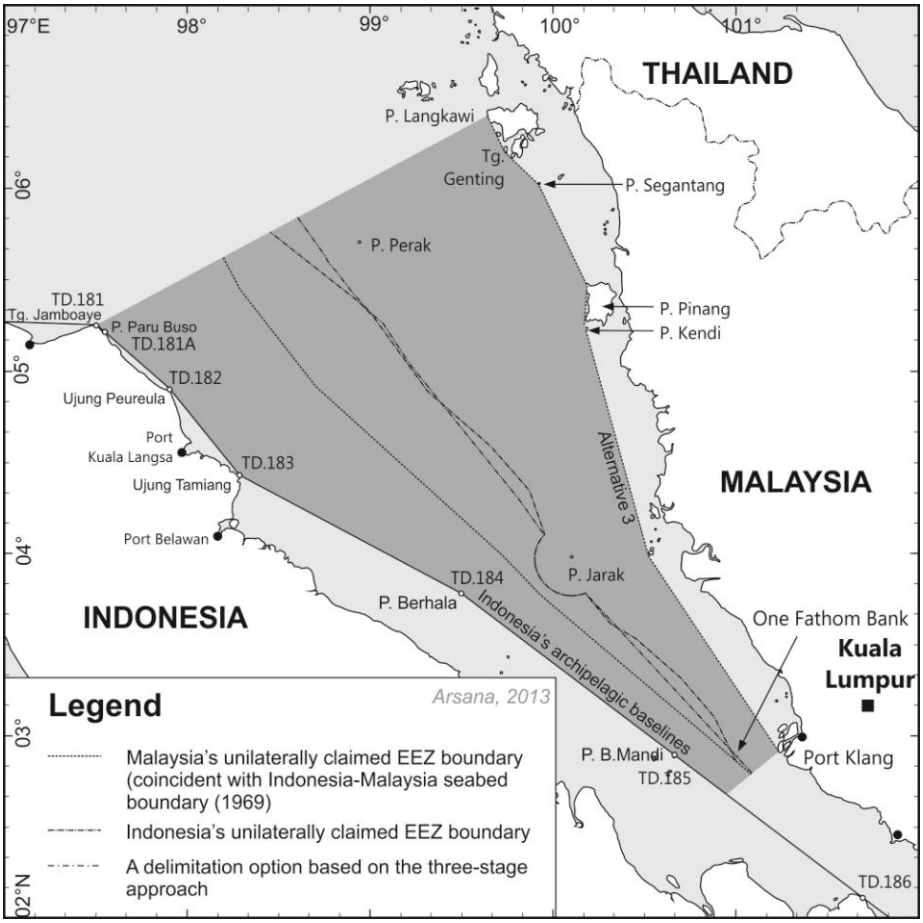

Figure 8.11 Comparison between Unilateral Proposals and the Three-Stage-Approach Delimitation Option[1377]

However, it is worth noting that there are certain assumptions with regards to the choice of baselines/basepoints, for example, that contribute to the option of solution. Different assumptions will eventually lead to different options of solution. While the option illustrated in Figure 8.10 is likely to be preferred by Indonesia, it is apparently less preferable for Malaysia for it is significantly different from its proposal. Malaysia, for its part, may prefer other option derived from provisional median/equidistance line as illustrated in Figure 8.8.

8.7 Other Options

It is unsurprising that both Malaysia and Indonesia maintain their unilateral claims and attempt to convince the other side to accept its respective proposal. In other words, it will not be easy (if not impossible) for each party to fully accept other party's proposal regarding EEZ boundary. Apart from the implementation of a three-stage approach, another possibility to consider is by drawing a compromised line between the two

[1377] Illustration by the author.

unilateral claims of Indonesia's and Malaysia's. Technically this can be achieved, for example by drawing a median line between the two unilateral claims with certain distance from each other. One possibility is to draw a strict equidistance line from two unilateral claims as described in Figure 8.12.

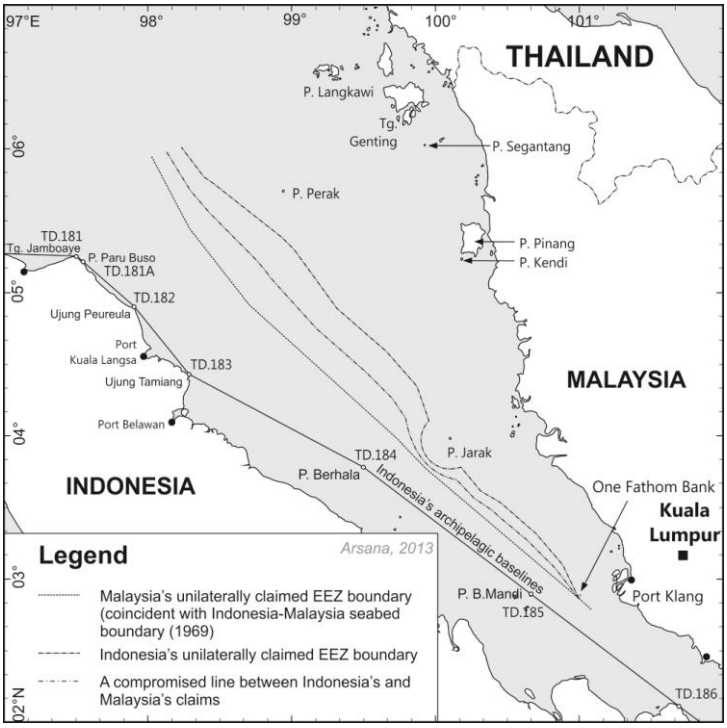

Figure 8.12 A Compromised Line between Indonesia's and Malaysia's Claims[1378]

The compromised line as shown in Figure 8.12 is generated by splitting the overlapping claim into two. While this approach has in fact been commonly practiced, this is by no mean a recommended approach and care should be taken during its implementation. Antunes states that this 'splitting' approach "gives States every reason to exaggerate their claims, in order to maximise their 'slice of cake'".[1379] This approach can prove to be a reason for coastal States to make as forward claims as possible, hoping that by doing so, they will be able to maximise the extent of their maritime area since the Court will decide the boundary based on the overlapping area between the coastal with neighbouring States. This will result in inequitable result if one party is more excessive than the other in making the unilateral claim and the one more excessive will be advantaged. This approach is dangerous since the delimitation is not conducted based on the norms and the law on how a coastal States should make their maritime claims.

[1378] Illustration by the author.
[1379] Antunes, N. 2003, see above note 79, pp. 181-184.

Antunes further warns that "Courts must be careful not to reward such behaviours". To minimise the risk of the above practice, the Courts might want to apply a different approach such as the 'winners-take-all' approach so that States in question cannot take it for granted that they will get at least part of what they have claimed. In other words, should the unilateral claim by one party be done with objective consideration, the claim is likely to be closer to the final decision, if a delimitation is conducted by considering objective contributing factors. This will eventually motivate coastal States to assess their claims more carefully and maintain the objectivity of their claim.[1380] This 'splitting cake' approach can only be equitable if each party implement the same principle in making their unilateral claim so that one party's claim is not significantly more or less excessive that the other's. This is certainly an ideal approach but might be unrealistic to an extent because in reality, coastal States will tend to maximise their claim. Therefore, should a delimitation case be brought before an international court or tribunal, strict and careful application of relevant international law and jurisprudence should be a priority in finding a solution. This may consequently mean that the court or tribunal should ignore each party's unilateral claims, especially if they are excessive in nature.

8.8 Non-coincident Seabed and Water Column Boundaries

Compared to the Sulawesi Sea and the Singapore Strait, the Malacca Strait is different since there is an agreed seabed boundary regime in place. In other words, the Malacca Strait requires delimitation of only the water column (EEZ). This brings complexity and naturally begs a question whether or not the water column boundary should coincide with the existing seabed boundary. Having analysed the possibilities of EEZ boundaries, it is likely that EEZ maritime boundary may not ultimately prove to be coincident with the 1969 seabed boundary. Should this option be accepted by both Indonesia and Malaysia, there will be maritime space where the seabed belongs to Malaysia but waters superjacent to the seabed fall under Indonesia's jurisdiction.

Different boundary lines for seabed (continental shelf) and water column (EEZ) might not be preferable in terms of practicality. This will cause complexity in ocean management and particularly resources utilisation. Malaysia is entitled to the utilisation of seabed resources including oil, gas and sedentary species while Indonesia can utilises resources in the water column such as fisheries. Furthermore, the utilisation of seabed

[1380] Above note 897, p. 184.

resources will not be possible without Malaysia entering Indonesia's EEZ, which is water superjacent to the seabed. This will require certain arrangement between Indonesia and Malaysia, which is feasible since the LOSC governs how a third State should carry on its activities in other State's EEZ.[1381]

The practice of having different lines for continental shelf and EEZ boundaries is not unique. This has been a practice experienced by Indonesia and Australia in the Timor Sea where EEZ boundaries signed in 1997[1382] are not coincident with seabed boundaries, delimited in the 1970s.[1383] These two non-coincident types of boundaries between Indonesia and Australia in the Timor Sea have caused the creation of a maritime area where the seabed belongs to Australia while the water column superjacent to the seabed falls within Indonesia's jurisdiction.[1384]

One of the common sources of problems is the lack of understanding among fishers on what constitute sedentary species that belongs to continental shelf and therefore are not subject to be taken in fishing activities.[1385] In the area where the EEZ belongs to Indonesia while the seabed is for Malaysia, sedentary species should not be taken by Indonesian fishers. However, due to lack of understanding and also the use of fishing equipment unselectively, sedentary species such as sea cucumbers may be taken accidentally. In the case of Indonesia-Australia EEZ boundaries in the Timor Sea, it is identified that problems arise due to, among other things, the fact that there are different line for seabed and water column boundaries.[1386] To minimise conflict due to lack of understanding, there must be clarity in the future agreement concerning the definition of sedentary species agreed by both parties, by particularly listing specific species included

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[1381] LOSC, Article 58.

[1382] Treaty between the Government of Australia and the Government of the Republic of Indonesia establishing an exclusive economic zone boundary and certain seabed boundaries. See Prescott, JRV., (2002), Australia-Indonesia, Report Number 6-2(6) in Charney J.I. and Smith R. W. (eds) *International Maritime Boundaries*, pp. 2714-2727, Martinus Nijhoff Publishers, the Netherlands.

[1383] For a complete documentation of the Agreement between the Government of the Commonwealth of Australia and the Government of the Republic of Indonesia Establishing Certain Seabed Boundaries (hereinafter referred to as 1971 Indonesia-Australia agreement), see Prescott, JRV., 1993, Australia-Indonesia (Seabed Boundaries) Report Number 6-2(1) in Charney J.I. and Alexander L.M. (eds) *International Maritime Boundaries*, pp. 1195-1205, Martinus Nijhoff Publisher, the Netherlands.

[1384] Herriman, M. and M. Tsamenyi. 1998., "The 1997 Australia-Indonesia maritime boundary treaty A Secure Legal regime for offshore resource development?", Journal of Ocean Development and International Law 29: 361-396.

[1385] Article of LOSC states that sedentary species are "organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil."

[1386] Fox, J. J. 2009. Legal and Illegal Indonesian Fishing In Australian Waters ", in: Robert Cribb and Michele Ford (eds), Indonesia beyond the water's edge; Managing an archipelagic state, pp. 218-219. Singapore: ISEAS.

in the agreement. The list should include, but not be limited to, specific and common species in the area that are likely to be the subject of fishing activities. In other words, the agreement should specify detailed information on sedentary species in addition to the general definition given by the LOSC. Secondly, information dissemination is essential for Indonesian and Malaysian fishers about the boundaries themselves and the agreement concerning sedentary species. Not only that, this dissemination is also important for law enforcement agencies in Indonesia and Malaysia. It is worth noting that in Indonesia alone, there are several institutions responsible for patrolling maritime boundary areas such as Ministry of Marine Affairs and Fisheries, the Indonesian Navy, and Police force. Effective information dissemination regarding maritime boundary and related agreements can ideally enhance coordination and cooperation among those institutions.

This aforementioned arrangement has indeed caused complexity in relation to resource utilisation, especially fisheries but it is evidently not an impossible solution. In a roundtable discussion organised by the Centre for International Law, National University of Singapore, Judge Tullio Treves asserted that there is no provision in the LOSC stating that coastal States have to opt for a single line delimiting continental shelf and EEZ boundaries, even though single maritime boundary is viewed as being more practical in relation to ocean management.[1387]

8.9 Concluding Remarks

Indonesia and Malaysia have yet to settle an agreed EEZ boundary in the Malacca Strait. For Indonesia, it is one of the approximately 20 pending maritime boundary segments to settle, scattered in around 15 different locations. Even though no maritime boundary has been agreed in the Malacca Strait, Indonesia and Malaysia have declared their unilateral claims which to an extent overlap one another, generating an area of EEZ claimed by both States. Unsurprisingly, Indonesia and Malaysia conduct law enforcement in the Malacca Strait based on their unilateral claim. Accordingly, Malaysian fishermen presence in the overlapping EEZ will be viewed by Indonesia as

[1387] Judge Treves is from the Universita di Milano, Milan, Italy and was a speaker in Session 4 of the roundtable discussion. Judge Treves presented a paper on "Maritime Delimitation and Offshore Features". The author was present in the roundtable discussion as in invited participant and asked Judge Treves a question specifically on the issue of continental shelf and EEZ boundaries in one location. Information about the roundtable is available at <http://cil.nus.edu.sg/programmes-and-activities/past-events/cil-roundtable-on-unclos-international-law-and-the-south-china-sea/>, accessed on 20 August 2013. See also the profile of Judge Treves at < http://www.itlos.org/index.php?id=87>.

an infringement and vice versa. An example of this is the 7 April 2011 incident involving Indonesian officials, Malaysian-flagged vessels and Malaysian helicopters (see section 8.5).

Finalising maritime delimitation is one of the ideal solutions in order for Indonesia and Malaysia to avoid or at least minimise maritime conflict in the Malacca Strait. This is an important agenda, along with delimitation of other pending maritime boundaries in Singapore Strait, South China Sea and Sulawesi Sea. At the time of writing this chapter, the two States are currently in the process of negotiations which take place in Malaysia or Indonesia. Around 25 negotiations have been conducted, even though not all of them were primarily for maritime delimitation in the Malacca Strait.

There are several options to consider with regards to EEZ delimitation in the Malacca Strait. By implementing the three-stage approach, there are several possible options which depends primarily on the use of different types of baselines and the existence of small islands such as Pulau Perak and Jarak of Malaysia's and Pulau Berhala and Pulau Batumandi of Indonesia's. An option line constructed by considering Indonesia's archipelagic baselines and Malaysia's possible straight baselines including more conservative options that are apparently claimed is analysed in this chapter. After adjustment due to the existence Pulau Perak and Pulau Jarak of Malaysia's and disproportionality test, a delimitation line was proposed, which is not coincident with either Indonesia's nor Malaysia's proposal.

Other possible options are following the proposal of either Indonesia or Malaysia, each of which is based on certain considerations. Indonesia's proposal is apparently based on median line principles with Indonesia's archipelagic baselines and Malaysia's normal baselines. Meanwhile, Malaysia's proposal is based on practicality reason that EEZ boundary should be coincident with the exiting seabed boundaries signed in 1969. While each proposal may be justifiable, at least by respective State, it is unlikely that Indonesia or Malaysia will fully agree upon other party's proposal. In this case, Indonesia and Malaysia can consider a compromise between the two proposals. However, any compromise solution would necessary result in the creation of a maritime area with different seabed and water column boundaries, an unwelcome complication in a highly busy shipping area. However, it is worth noting shipping activities concern

only water column and have nothing to do with continental shelf. Furthermore, traffic separation scheme already exists in the Malacca Strait and proves to function well.

Even though both parties will undoubtedly attempt to persuade the other party to agree upon its own proposal, it is not surprising if both eventually agree on a third option which is a compromised line between both proposals. The final line agreed by Indonesia and Malaysia will undoubtedly depends on the negotiation process and how both parties take into account relevant factors. Regardless of the result of negotiations in the future, it is likely that both States prefer negotiations to achieve resolution rather than alternate option such as mediation, arbitration and litigation. However, bringing the case to a third party is certainly not impossible if the negotiation fails to achieve mutual agreement between Indonesia and Malaysia. Previous experiences in dealing with ICJ in the case of sovereignty dispute over Pulau Sipadan and Ligitan[1388] (Indonesia-Malaysia) and the case of Pedra Branca, Middle Rock and South Ledge (Malaysia-Singapore)[1389] should to an extent influence decision whether or not to bring the case to a third party.

On a broader picture, the Malacca Strait is not the only location where Indonesia and Malaysia need to complete the delimitation of their maritime boundaries. The South China Sea, Sulawesi Sea and Singapore Strait are three other locations where pending maritime boundaries are equally important to finalise. Having observed this, Indonesia and Malaysia might be tempted to have a different strategic approach in the whole context of their maritime boundary delimitation. Potential trade off is an option, where one State may gain less in one area but is given more in other area. For example, Malaysia may be able to convince Indonesia to have a single maritime boundary line in the Malacca Strait, which is coincident with the 1969 seabed boundary line, and, as a trade off, both States accept Indonesia's proposal, or an option close to Indonesia's proposal, for maritime boundary delimitation in the Sulawesi Sea. Basically, the maritime boundary delimitation may be seen as a whole package so the equitableness of the result is not judged from the delimitation of each segment or location but rather from the entire result of delimitation in the four locations.

[1388] Sipadan and Ligitan Case, see above note 70.
[1389] Pedra Branca Case, see above note 73.

CHAPTER 9 CONCLUSIONS AND RECOMMENDATIONS

"Love your neighbour, yet do not pull down your hedge" - Benjamin Franklin

9.1 Summary and Findings

This thesis critically analyses challenges and opportunities in the delimitation of Indonesia's maritime boundaries with its neighbouring States. The overarching, key research question addressed is "what are the delimitation options in settling Indonesia's maritime boundaries with its neighbours by considering relevant legal and technical aspects for political solution?". Through the analysis of three case studies critically discussed in previous chapters, it is concluded that delimitation options for Indonesia's maritime boundaries can be achieved by implementing the three-stage approach. With this approach, several options of delimitation were produced, advantages and disadvantages of which were analysed for different case studies representing different locations of delimitation.

This thesis has detailed and assessed the development of Indonesia's maritime claims and, particularly, its progress in relation to the delimitation of its maritime boundaries, since independence to the present. Prior to discussing Indonesia's maritime boundaries, this thesis summarises the importance of the oceans at global, regional and national scales together with an assessment of the importance of this present research as outlined in Chapter 1. Chapter 2 discussed the evolution of the international ocean boundary making, focusing on recent developments in jurisprudence and State practice that are relevant to the present research. Chapter 3 focused on the national context of Indonesia, detailing the development of ocean affairs and the law of the sea in Indonesia and Indonesia's role in the development of international law of the sea in general.

Indonesia has signed 17 agreements with its seven neighbours, which are India, Thailand, Malaysia, Singapore, Vietnam, PNG, and Australia. The first agreement was signed with Malaysia in 1969 and the latest one was with Singapore in 2009. Chapter 4 and 5 of this thesis respectively discuss Indonesia's agreed and pending maritime boundaries with its neighbours. It is found that the agreed maritime boundaries are not the end of the story since problems often arise in areas where boundaries have formally at least, been settled. In other words, agreed maritime boundaries represent only the starting point for further efforts in terms of international boundary

administration/management. This is something that often involves substantial international cooperative efforts in order to manage resources and activities that are trans-boundary in character. Settled maritime boundaries between Indonesia and Australia provide good examples illustrating that even when maritime boundaries have apparently been settled significant cross-border issues can still arise. People smuggling and fishing activities offer two notable examples of issues that require attention from the authorities concerned even though the maritime boundaries in question are essentially settled. This emphasises the point that settled maritime boundaries require management and maintenance.

While Indonesia has arguably been successful in settling maritime boundaries with its neighbours, there remain multiple segments of maritime boundaries to delimit and finalise. With three neighbours, namely the Philippines, Palau and Timor-Leste, no maritime boundaries have been agreed. In addition, maritime boundaries with other seven neighbours, need to be finalised. In areas where seabed (continental shelf) maritime boundaries have been settled, for example, a water column boundary (EEZ) still needs to be delimited. This is the case of several locations such as the Malacca Strait and the South China Sea. Meanwhile, one agreement with Australia signed in 1997 has yet to be ratified. In short, there are numerous pending maritime boundaries for Indonesia to settle with its neighbours. In total, there are more than 20 segments to settle, which have been systematically discussed in Chapter 5 of this thesis.

One important objective of this thesis is to provide options of maritime boundary delimitation to address the aforementioned pending maritime boundaries of Indonesia. To fulfil this objective, three case studies have been analysed in this thesis. These are maritime delimitation in the Sulawesi Sea (Indonesia-Malaysia), maritime delimitation in the Strait of Singapore (Indonesia-Malaysia-Singapore) and maritime delimitation in the Strait of Malacca (Indonesia-Malaysia). The three case studies are detailed in Chapters 6, 7, and 8 respectively where options of potential delimitation lines are generated by considering four contributing factors. The four factors are the existence, or presumed existence, of natural resources in overlapping areas that may impact on the delimitation process (either positively or negatively); the use of different types of baselines in delimitation; the potential for use of different lines for seabed and water column in a same location; and the role of special or outstanding geographical features such as islands in delimitation. The author is aware that these four factors are not

exhaustive. However, it is hoped that the maritime boundary delimitation options provided here can contribute as alternatives or relevant considerations in real maritime boundary negotiations by Indonesia and its neighbouring States.

This thesis predominantly uses the three-stage approach in maritime boundary delimitation involving the aforementioned three case studies. The development of maritime boundary delimitation, as discussed thoroughly in Chapter 2, reveals that the three-stage approach has become a clear trend in maritime delimitation performed by the International Court of Justice (ICJ) and the International Tribunal for the Law of the Sea (ITLOS) especially with respect to EEZ and continental shelf boundary making. This approach consists of three steps in maritime delimitation which are 1) construction of a provisional delimitation line based on equidistance, 2) adjusting the provisional boundary line by considering relevant circumstances in order to achieve an equitable result, and 3) conducting a disproportionality test to ensure that the proposed delimitation line does not lead to a substantial imbalance, and thus inequality, in terms of the ratios of relevant coasts and the maritime areas attributed to the States in question. The purpose in seeking to apply the three-stage process here is not only to generate options of delimitation for the case of Indonesia but also to analyse the advantages (and disadvantages) of the approach with a view to its application more broadly to other delimitation scenarios not necessarily involving Indonesia. Given the relatively recent development of the three-stage process, this can be regarded as one of the novel contributions of this thesis to the literature.

9.2 Delimitation of Indonesia's Pending Maritime Boundaries

The three case studies alluded to above were selected in order to analyse Indonesia's pending maritime boundaries as previously mentioned. These three case studies were identified because it is considered that they can represent almost all issues in relation to maritime boundary delimitation between Indonesia and its neighbours as described in Chapter 1 of this thesis (section 1.5). The following subsections discuss the four issues that have been identified in maritime delimitation involving the above three case studies followed by suggestions regarding a strategic approach in finalising Indonesia's maritime boundary delimitation with its neighbours.

9.2.1 The Impacts of Natural Resources on Delimitation

The existence, or presumably existence, of natural resources such as oil, gas and fisheries[1390] can be regarded as one of the main reasons of maritime delimitation. Settled maritime boundaries will eventually bring certainty regarding the division of maritime space and serve to facilitate ocean management. Delimitation of the location of the boundary delivers clarity over the maritime jurisdictional rights on each side of the line gives the States in question, as well as marine resource users such as fishers and oil and gas companies, confidence in pursuit their activities. In this context, marine resources can play a dual role, however,. On one side, the existence, or rumoured existence, of natural resources in a disputed area where boundary delimitation is pending can be a source of tension between neighbouring States for each party will tend to want to utilise the resources for their own advantage. On the other side, this issue can also act as a lure to motivate the States in question to accelerate maritime delimitation since settled maritime boundaries are prerequisite for safe and peaceful resources exploration and utilisation.

For the case of Indonesia, the Sulawesi Sea provides a good example of the influence of this factor in the context of undelimited maritime boundaries. The existence of hydrocarbon resources appears to play an important role in the process of maritime delimitation. The mutual desire of Indonesia and Malaysia to secure uncontested rights over the potential oil and gas from the seabed understood to be underlying the disputed areas of the Sulawesi Sea has helped to cause tensions to build between the two States. In the Sulawesi Sea, both Indonesia and Malaysia have declared their respective unilateral claims, which apparently are closely related to the location of oil and gas in the area. Indonesia for its part has defined oil and gas concession blocks in the area since 1960s. In addition, Indonesia has also unilaterally declared the limits of its maritime claims and thus its preferred boundary line in the Sulawesi Sea. Analysis indicates that this unilateral claim appears to take into account its previously defined concession blocks. For its part, Malaysia has similarly advanced unilateral maritime claims and also defined concession blocks which significantly overlap with Indonesia's unilateral claims, which is apparently a key reason for tension in the region. Should the

[1390] This list is by no means exclusive but these resources are obviously the most significant and attractive ones at the present time. Other non-conventional resources such as the seabed minerals and biogenetic resources associated with hydrothermal vents, for example, are gaining more importance and may be increasingly significant in the future but they are not seen as major contributing factors at the present time.

delimitation be achieved through negotiations, it is likely that both States will start with their forward position which was defined, at least in part, by considering the existence of oil and gas in the region.

The issue of hydrocarbon resources is not exclusive to the case of the Sulawesi Sea. This might also be an issue in maritime boundary delimitation with Timor-Leste in the future. Lateral maritime boundary delimitation in the Timor Sea between two adjacent States of Indonesia and Timor-Leste in the Timor Sea will have to consider the existence or suspected existence of oil and gas reserve in the area.

The existence of fishery resources can also be an important contributing factor in maritime delimitation. Fisheries are often more likely to cause friction as fishing vessels tend to competitively fish the same waters leading to incident with rival fishing vessels and/or the patrol vessels sent by each side to manage/regulate the situation. Two incidents outlined below are two good examples for this. This factor is at least a motivating factor to initiate maritime boundary delimitation for it will provide certainty for fisheries activities around the boundary areas. Incidents involving fishermen around maritime boundary areas have occurred arguably frequently due to pending maritime boundaries. Incidents around Tanjung Berakit (the Singapore Strait) in 2010 (see Chapter 7) and the Malacca Strait in 2011 (Chapter 8) provide good examples how fishery resources around disputed area can provide an important driver for maritime delimitation. Conversely, lack of delimitation can be problematic to the utilisation and the management of fishery resources. It is worth noting, however, that fisheries activities conducted by Indonesia and Malaysia can be considered but are not necessarily definitive factors in maritime delimitation. Consideration on the existence of fisheries resources will also be relevant in maritime boundary delimitation with other States such as Vietnam in the South China Sea and in the Sulawesi Sea with the Philippines.

9.2.2 The Role of Different Types of Baselines

Indonesia, being an archipelagic State, is entitled to designate archipelagic baselines, which it already deposited to the United Nations in 2009 as discussed in Chapter 3, section 3.9. It is anticipated that Indonesia will likely propose the use of its archipelagic baselines in maritime boundary delimitation with its neighbours. On the other hand, there is always possibility that its neighbours will propose the use of Indonesia's normal

baselines or alternatively, propose straight baselines of their own. The use or otherwise of types of different types of baselines will apparently be a source of debate or potentially disagreement between Indonesia and its neighbours before proceeding to delimitation. Analysis conducted in this research, especially in Chapter 6, 7 and 8, showed that the use of different types of baselines can have significant impact on the resulting delimitation line. The use of different types of baselines affects the generation of provisional boundary line in the three-stage approach. The use of archipelagic baselines or normal baselines, in some locations can generate significantly different boundary lines. It can be anticipated that this issue will be a key preliminary focus for discussions in negotiations towards the delimitation of Indonesia's pending maritime boundaries.

The use of different types of baselines is not only an issue for Indonesia. Even though Malaysia is not an archipelagic States, there is possibility for Malaysia to designate other types of baselines other than normal baselines, something which has been indicated in its relevant Act issued in 2006. Judging from its 1979 map, Malaysia apparently designated straight baselines, for example, in the Malacca Strait, and it is highly likely that the use of these baselines will be proposed by Malaysia in future maritime boundary delimitation negotiations with Indonesia as analysed in Chapter 8. Furthermore, analysis shows that these baselines played a role in the delimitation of the existing seabed boundary between Indonesia and Malaysia in the Malacca Straight dating from 1969 as discussed in Chapter 8, section 8.4. Apparently the use of different types of baselines for Indonesia and Malaysia in their maritime delimitation situation may arguably affect the result of the delimitation and potentially significantly so.

9.2.3 Potential use of Different Lines for Continental Shelf and EEZ

In some locations such as the Malacca Strait and the South China Sea, Indonesia has agreed seabed (continental shelf) delimitations with its neighbours but the water column (EEZ) boundaries have yet to be settled. This begs a question whether or not EEZ boundaries in such locations will be, or indeed necessarily need to be, coincident with existing seabed boundaries or not. In the Malacca Strait, in particular, it is clear that Malaysia prefers a single boundary line while Indonesia proposes a different line for the EEZ boundary. From a practical perspective, a 'single' maritime boundary would appear to be preferable for resource utilisation and ocean management, primarily on

account of its simplicity. However, from a legal perspective, mere practicality does not necessarily lead to an equitable outcome. Clearly, an equitable solution is the goal of Indonesia and Malaysia in the EEZ maritime delimitation in the Malacca Strait. Legal and technical analysis undertaken in this research suggests that an equitable solution for EEZ can be potentially achieved through the delimitation of a different line for the water column compared to the existing seabed boundary.

It is worth re-emphasising that the use of different lines for seabed and EEZ boundaries is not unprecedented. Indonesia and Australia agreed EEZ boundary line in 1997 which is different from existing seabed boundary the two States agreed in 1970s. However, this kind of arrangement brings complications since there will be marine space where the seabed belongs to Australia while water superjacent to it is within Indonesia's jurisdiction (see Chapter 4 section 4.8). While it is clear that oil and gas are for Australia and fisheries resources are for Indonesia, it is easy to misunderstand that living organism such as sea cucumber belongs to Australia for it falls to the category of "sedentary species".[1391] Should Indonesia and Malaysia agree upon different lines for seabed and EEZ boundaries, the two States have to be ready with the consequences. This type of scenario may arise more frequently in the future in light of the creation of a "grey area" by ITLOS in the Bay of Bengal case.[1392] This makes the idea of multiple boundaries for different maritime zones arguably less exceptional than it might first appear.

9.2.4 The Role of Special Geographical Features in Delimitation

The existence of what can be termed special or outstanding geographical features such as small islands, rocks and low-tide elevations (LTEs) are potentially important in maritime boundary delimitation between Indonesia and its neighbours. This is the case in maritime delimitation in the Malacca Strait, for example, where Pulau Jarak and Pulau Perak, two small islands belonging to Malaysia exist. The role given to these two islands can make a significant difference in generating maritime boundary lines between Indonesia and Malaysia in the region. Another example occurs towards the eastern side of the Singapore Strait where Pedra Branca, Middle Rocks and South Ledge exist. Theoretically, a median/equidistance line is preferable in this area as it is a territorial sea delimitation pursuant to Article 15 of LOSC. However, there is possibility to modify

[1391] LOSC, Article 77 (4).
[1392] Bay of Bengal Case, see above note 327, para. 463-476.

such median/equidistance line by considering other factors such as proportionality based on the ratio of coast length measured for the small features and relevant baselines of Indonesia. It was found that this consideration on coast length ratio may be the basis for a significant shift in the median/equidistance line in the eastern end of the Singapore Strait. Similarly, the roles of small islands in maritime delimitation are also potentially demonstrated by Sipadan and Ligitan in the case of Sulawesi Sea between Indonesia and Malaysia (Chapter 6).

9.2.5 Adapting a Strategic Approach in Finalising Maritime Boundary Delimitation

As clearly demonstrated in this thesis, Indonesia has more than one location where maritime boundary delimitation needs to be carried out with each of its neighbours. With Malaysia, for example, four locations are involved, which are the Sulawesi Sea, Singapore Strait, Malacca Strait and South China Sea. While it is generally accepted that every case of maritime boundary is unique, those different segments and locations can also be viewed in a broader, more inclusive context. This approach will allow Indonesia and Malaysia the opportunity to be more flexible and arguable strategic in making adjustments in maritime delimitation negotiation to speed up the entire process. Basically this approach enables both States to engage in trade off in their maritime boundary delimitation scenario overall.

With the abovementioned trade off approach in mind, one side might gain less in one location but is given more in another location as a result of maritime boundary delimitation. For example, Indonesia might accept Malaysia's proposal in the Malacca Strait, even though Indonesia certainly does not view that as an equitable solution. To balance this, Malaysia may also accept Indonesia's proposal in the Sulawesi Sea, for example. Alternatively, both States manage to come up with an option that is closer to Indonesia's proposal in one location and closer to Malaysia's proposal in another location. In other words, States in question might not achieve an "equitable solution" in one particular location but eventually achieve it in the entire context of maritime boundary delimitation. This would arguably be in keeping with the negotiating principle that 'nothing agreed until everything is agreed' but on a more comprehensive basis.

9.3 Evaluation on the Three-Stage Approach

An apparent virtue of the thee-stage approach is that it arguably provides more certainty in maritime boundary delimitation for it offers a more systematic approach involving

distinct steps in the process of maritime delimitation. In an ideal situation, the approach also aims to guarantee that the result of delimitation will not cause overt inequality for parties in questions since the approach includes a disproportionality test, even though in fact the disproportionality test has never led to a readjustment of the proposed line in the past. With this three-stage approach, it appears that there is now a clear guideline for States and the Court to follow in maritime delimitation in the future. The approach can be viewed as an achievement in that it systematises maritime boundary delimitation which was previously more prone to uncertainty in terms of approach. The experience of following the three-stage approach in this research, leads to the conclusion that the maritime boundary delimitation process is more systematic and easier to follow in principle.

Despite the fact that the three-stage approach offers a clearer process to follow it also has sources of uncertainty in its implementation. Firstly, the first stage of constructing the provisional boundary line is highly dependent on the use of types of baselines and choice of basepoints. For the case of Indonesia and its neighbours the different types of baselines potions and choice of specific basepoints which may be used, leading to the potential provisional lines are essentially endless. Here it can be observed that international judges retain a strong measure of discretion. Secondly, in adjusting the line by considering coastline length ratios, for example, there are no clear guidelines to follow. It is unclear the degree of difference in ratios that will justify an adjustment to the line and, indeed, by how much. Again, this illustrates the considerable measure of discretion that international courts and tribunals retain in formulating their rulings in keeping with the objective of achieving an equitable result. In several cases, even though the length of relevant coastline of one State is different from that of the other, the Court often does not see such a disparity as a reason to adjust the line. Further, in the disproportionality test, it is not necessarily straight forward to define the relevant area of delimitation. It seems that there is no specific procedure to define the relevant area so it does not guarantee certainty. This consequently causes another uncertainty in relation to the calculation of relevant areas, which eventually affects the result in calculating ratio of maritime area assigned to each party after a delimitation process. Furthermore, there is no specific guidance to follow in terms of the degree to which a provisional delimitation line should be adjusted in light of a very substantial, that is, disproportionate, difference in the ratio of coastline length and maritime area assigned

for each party. There are cases where the difference of coastline length ratio and maritime area ratio is quite significant but the Court has not seen that difference as a reason to adjust the final line. Indeed, it can be noted that there is no instance of an international court or tribunal finding a need to adjust the proposed boundary line on account of (dis)proportionality factors.

To sum up, the three-stage approach does provide a more systematic and clearer procedure in maritime boundary delimitation overall. However, it is worth noting that it also has sources of uncertainty built within it that may cause difficulties in its implementation. The approach has been tested in three case studies in this thesis and it was found that factors such as the use of types of baselines and the role of relevant coast length in disproportionality test are sources of uncertainties. The approach is relatively newly-developed and this thesis is one of the first instances of it being critically tested. This indicates that the approach of maritime boundary delimitation, as demonstrated by the Court and Tribunal, continues to evolve in the future. Furthermore, it remains to be seen how evolving approach will develop and be implemented in practice.

9.4 Beyond Delimitation

Boundary issues and problems do not only occur in areas where maritime boundaries are absent. They also take place in areas where maritime boundaries have been agreed upon. A series of accurate coordinates and lines neatly drawn on a map is not sufficient without proper administration of transboundary management and cooperation. Drawing from the foregoing analysis, three issues related to administration discussed in the following subsections relate to illegal activities, geospatial issues and information dissemination.

Illegal border crossings are one of the serious illegal activities that can occur in the vicinity of maritime boundary areas. Illegal border crossings are conducted for, among other things, Illegal, Unreported and Unregulated (IUU) fishing, which involves fishing activities beyond maritime jurisdiction where such fishing is not allowed.[1393] While it is impossible to tell whether or not fishing activities are illegal in maritime area where boundaries have yet to be settled, the case is certain when such activities take place in

[1393] Indonesia, through the Ministry of Marine Affairs and Fisheries issued a National Plan of Action to Prevent, Deter and Eliminate, Illegal, Unreported and Unregulated Fishing in 2012. See, Ministry of Marine Affairs and Fisheries Regulation Number 50 of 2012 on National Plan of Action to Prevent, Deter and Eliminate, Illegal, Unreported and Unregulated Fishing. Available at <http://www.infohukum.kkp.go.id/files_kepmen/KEP%2050%20MEN%202012.pdf>.

maritime area where boundaries have been finalised. Such activities are considered illegal because they are performed in another State's maritime jurisdiction without authorisation.

Illegal activities can also involve gathering of inappropriate marine resources. In a maritime area where boundaries for water column and seabed are not coincident this can easily happen. Maritime areas in the Arafura Sea or Timor Sea are examples where maritime boundaries have been fixed with EEZ boundary and seabed boundaries do not coincide (see Chapter 5). This consequently generates areas where water column jurisdiction belongs to Indonesia but seabed rights rests with Australia. In this case, Indonesia, and Indonesian fishers, are entitled to capture free swimming fish but not entitled to take sedentary species such as sea cucumber.[1394] The seizure of Indonesian fishermen by Australian patrolling officers is by no mean a new thing (see Chapter 4 section 4.8). Even though boundary lines have been clearly established, issues and problems related to resources utilisation remain to be sources of conflict between Indonesia and Australia (see Chapter 4 section 4.8). The fact that seabed boundary lines do not coincide with EEZ boundary lines is considered to be one of the main reasons that illegal activities occur leading to Indonesian fishermen being seized by Australian patrolling officers.

Geospatial issues that lead to administration-related problems include the absence of a datum in respect of charts used to depict maritime boundaries, positional inaccuracy, and the use of navigational technology/devices. Most of the agreements Indonesia signed with its neighbours do not specify the use of a particular geodetic datum. Only the last three agreements (Indonesia-Australia in 1997, Indonesia-Vietnam in 2003, and Indonesia-Singapore in 2009) clearly specify in geodetic datum used to define coordinates of boundary points, while the earlier ones do not (see Chapter 2, subsection 2.7.2). Without the designation of a specific geodetic datum, the position of points and line cannot be defined operationally. This causes complications when there is a need to define the boundaries in the field in relation to, for example, judging whether a border crossing has occurred on not. Without a specified datum, a list of coordinates in an agreements means nothing as the position is impossible to be defined in the field. Consequently, one cannot tell whether or not a vessel navigating in boundary area, for example, has committed a border crossing or not. Put simply, the failure to specify a

[1394] LOSC, Article 77 (4)

geodetic datum in a maritime boundary agreement may cause difficulties, if not impossibility, in defining the boundary line in the field. Undefined boundaries will inevitably cause problem in managing activities around the boundary.

The second issue related to geospatial/technical aspects as applied to delimitation issues is in relation to positional inaccuracy. Inaccuracies in coordinates may be due to the use of different datum or reference frameworks. In the case of Indonesia-Australia 1997 EEZ boundary delimitation, for example, the 1997 line was meant to be coincident with a previously-defined line: the 1981 fishing zone. However, due to the use of different datums when coordinates of the two lines were defined, they are apart from each other at a distance of hundreds of metres. This can also cause misjudgement when it comes to activities taking place in close proximity to the boundary potentially leading to inadvertent border crossing. One activity might be considered as a border crossing using one map/chart while use of another chart might lead to a different conclusion because of the use of different datum.

Effective information dissemination is an important part of boundary administration. While the maritime boundary agreement might have been clear and certain for government officials, it is not surprising that the information is inadequately accessible to the laymen. On the other hand, information regarding maritime boundaries, in fact, is much more practically important for people living near the border. Accordingly, information dissemination is essential. It has been the case that people living near or operating around the border have inadequate understanding regarding the establishment of maritime boundaries. Traditional fishermen in the Island of Timor, for example, often believe that they are entitled to fishing in the area around Australia's Ashmore Reef. Information regarding established boundaries and Memorandum of Understanding in the areas proximate to the boundary in particular needs proper dissemination so the people are aware of important arrangement that might have been changed. Even though traditional fishing rights are recognised, to an extent, formal arrangement after the establishment of boundaries might not remain the same. Without adequate information dissemination, infringements might take place more easily.

Information regarding maritime boundaries is not only essential for people residing around boundary areas, it is also important for government officials, law makers, academia and people in general. Lack of understanding may lead to misleading

responses and comments (see Chapter 6). For example, Ambalat is often misunderstood as an island, instead of seabed block (see Chapter 6, subsection 6.4.3). This caused more complications since this understanding would influence the way one sees the case of Ambalat Block. An island and seabed are certainly two different objects with different legal regimes. Considering Ambalat as an island could be a reason for disproportionate reaction of the people of Indonesia in responding to the case. Put simply, information dissemination is critical yet also challenging.

9.5 Challenges, Opportunities and General Recommendations

One of the main challenges in terms of completing Indonesia's maritime delimitation picture is convincing relevant neighbouring States regarding the importance of speeding up the delimitation process. Delimitation is a bilateral process so it requires both parties' willingness. For example, at a particular time, there were cases, such as the one with Malaysia in the Singapore Strait, where Indonesia was ready to negotiate but Malaysia was not.[1395] The situation can also be the other way around where a neighbouring country, such as Malaysia, is ready but Indonesia is not. Accordingly, how fast a particular maritime delimitation can be finalised is highly dependent upon willingness of both (or all) of the parties in question to negotiate towards finalising a particular maritime boundary. Equally, other States may not compel Indonesia to negotiate before it is ready to do so. Indonesia, in this case, may not force other States to negotiate on maritime delimitation. In addition, it is understood that each State has its own priorities and maritime delimitation might not always be in the top of the list. This seems to be applicable to the case of Indonesia-Timor-Leste, where Timor-Leste might not consider maritime boundary as a top priority considering it is facing a lot of other serious issues such as poverty, education, health, and governance. Furthermore, in terms of maritime resources, Timor-Leste's main concern has been with Australia rather than Indonesia so that maritime boundaries with Australia have understandably tended to be prioritised by Timor-Leste. Additionally, the demarcation of the land boundaries between Indonesia and Timor-Leste is as yet incomplete.[1396] Differing priorities between Indonesia and Timor-Leste regarding the urgency of delimiting pending maritime boundaries seems to be another reason for the two States not to have put their maritime delimitation at the top of their priority agendas.

[1395] See above note 1057.
[1396] See above note 902.

The fact that pending maritime boundaries can cause serious international conflicts may also be seen as an opportunity, instead of solely as an obstacle. The adverse impacts of boundary conflicts illustrated by situation such as the Ambalat Block case, the Tanjung Berakit incident and the Malacca Strait incident can, as noted, have significant negative impacts on the Indonesia-Malaysia relationship, for example. Accordingly, this should be seen as a strong motivation to resolve the issue. Having understood that conflicts between Indonesia and Malaysia in relation to border disputes could evidently increase tensions between the two, the States involved should prioritise the accomplishment of maritime boundary delimitation between them. Another opportunity for Indonesia is the existence of a solid negotiating team consisting of various ministries/institutions with capable legal, technical and political experts. In addition, the role of Indonesia in the region, especially Southeast Asia remains strong by the fact that Indonesia manages to play important role in the Association of Southeast Asian Nations (ASEAN), for example. In 2011, when Indonesia served as the chairman of ASEAN, it managed to facilitate mediation between Thailand and Cambodia for border issues, for example. This strategic position can be optimised by Indonesia to accelerate maritime boundaries negotiations with its neighbours, the majority of which are ASEAN members. This is also an opportunity for ASEAN to show the world that a regional organisation can also be effective in solving bilateral or multilateral issues among its members.

With regards to boundary administration, Indonesia is facing three main issues, which are illegal activities around boundary areas, geospatial/technical issues and information dissemination. The challenges regarding illegal activities relate to issues of capacity and the number of assets available such as providing adequate number of patrolling vessels and officers. It is worth noting that the enormous scale and complexity of the Indonesian Archipelago and waters offers Indonesia huge potential benefits but also daunting challenges to face especially practically, financially and logistically. Established maritime boundaries have to be guarded by officials (military and civilians) with adequate knowledge and especially equipment. To guard and manage such a large maritime boundary area, Indonesia requires a lot of resources (people and equipment) and it seems that there remains space for improvements to be made. In addition to the provision of people and equipment, coordination is also an essential challenge. Indonesia currently has various institutions that play important role in providing surveillance and enforcement of guarding Indonesia’s maritime boundary spaces.

Without proper coordination among those institutions, misunderstanding, tensions and even clashes can happen and the high number of institutions can bring more problems, instead of solutions. The role of the Indonesian Maritime Security Coordinating Board (*Badan Koordinasi Keamanan Laut*, Bakorkamla) is therefore vital in facilitating coordination among existing institutions. Should Bakorkamla be unsuccessful in performing its coordinating role, it will manifest as just another institution that may further complicate the already highly challenging situation in Indonesia.

With regard to geospatial/technical issues, the challenge is in providing adequate geospatial data/information for the purpose of boundary administration. The challenge for BIG and Dishidros is to provide charts with adequate technical specification. While there is no legal requirement on how often charts depicting baselines and maritime boundaries should be updated, they need to be regularly updated to accommodate environmental changes so that the map is reliable for safety of navigation. This certainly requires expensive field surveys and cartographic process, which is a challenge in itself. Another challenge is on how to define the right geodetic datum for the already signed maritime boundary treaties between Indonesia and its neighbours. This will require intensive geospatial research involving various technical parameters and reasonable assumptions to achieve acceptable solutions. Not only that, the fixing of datum may in turn result in changes being made to the current/existing treaties complicating the treaty-making process.

When maritime spatial information is collected, a further challenge is with regard to the management of that information including the handling, representation, sharing, and usage. How maritime spatial information, including that related to maritime boundaries and limits, is changing as information technologies develop, it is suggested that Indonesia will need to face this challenge and adapt. Technically, such system is not impossible to establish though it requires human capacity, software and, hardware to be available. However, it is evident that such information systems can end up being underutilised for lack of promotion and information-sharing as well as on account of human capacity/training issues. With regards to the use of charts, the world is now moving beyond traditional nautical charts to the use of smart electronic nautical charts. The possibility of the use of open-sourced participatory mapping such as Open Sea

Map,[1397] for example, is perhaps worth exploring and potentially optimising for better maritime boundary information system management.

The challenge of information dissemination is in balancing the need to treat confidential information accordingly and the urgency to educate people and relevant parties by providing as much accurate information as possible as openly as possible. Secondly, the challenge is in expressing legal and technical matters related to maritime boundaries in accessible language so that it can reach as broad an audience as possible. In this case, relevant parties in the government need to be aware that the way to convey the information is as equally important as the content of it.

Apart from the aforementioned challenges, opportunities also exist in the context of boundary administration. There are opportunities for transboundary cooperation around maritime boundary areas. These opportunities of cooperation can be done in areas where maritime boundaries have been settled or where maritime boundaries are being settled. It is understood that resources such as fish, for example, do not recognise artificial international political boundaries so that their management should involve transboundary process. While territory and jurisdiction require certainty through boundaries delimitation, resources management require comprehensive transboundary approaches for optimal results.

Furthermore, disputes and incidents in relation to boundary issues may be viewed as opportunities to build awareness among relevant parties in the government and public in general. By understanding how negative the impact of improper boundary administration can be, relevant parties can realise that managing boundaries is just as important as establishing them. This can, to an extent, accelerate and improve maritime boundary management program for better impact. Similarly, better awareness among the laymen on the importance of boundary management can also generate adequate pressure from the public to relevant parties in the government to take their job more seriously.

The establishment of the National Agency for Border Management or *Badan Nasional Pengelola Perbatasan* (BNPP) is arguably one of key steps the government of Indonesia has taken to deal with boundary administration issues. However, apart from

[1397] Open Sea Map is an open source, worldwide project to create a free nautical chart, the goal of which is to record interesting and useful nautical information for the sailor. Open Sea Map is represented in a free map of the world. See official website of Open Sea Map at <htpp://www.openseamap.org>.

its idealistic objectives, there is space for improvement, such as personnel's capacity building, to optimise its roles, mainly its coordination function towards better border management in Indonesia (see Chapter 3, section 3.10). Capacity building is one of the most important issues to address for the agency to perform its coordination function.

Indonesia seems to have done reasonably good job in conducting maritime delimitation with its neighbours. More than 25 technical meeting with Malaysia concerning maritime boundary delimitation is an indication of adequate efforts Indonesia has been demonstrating. However, there is always space for improvement. One alternative recommendation option of this research is that Indonesia may reconsider the principle applies in maritime boundary delimitation with Malaysia for example that "nothing agreed until everything is agreed". With recent developments, especially those regarding tension built due to maritime boundary disputes, the existing approach may need reconsideration. It is good to view numerous segments and locations of maritime boundary delimitation in a broader context but it is worth noting that it will take a very long time until everything is agreed. Alternatively, agreement can be achieved for only parts of the entire maritime boundaries and not to wait until the whole package is completed. However, in dealing with such partial maritime boundary agreements it has to be borne in mind that one particular segment/location is part of a broader whole context so that there is always space for flexibility and even trade off.

Information dissemination seems to be critical for Indonesia. Based on the investigation on the role of media in maritime boundary issues, it is concluded that inaccurate information is one of the main tensions in the society regarding border issues. Accordingly, information dissemination through media accessible by the laymen is one of the solutions. There is also a need for the government and its relevant parties to support publications of scientific-popular issues regarding maritime boundaries. Not only that, diversification of media channels such as use of videos/short movies, comics, short articles, is one of the options to address this issue.

9.6 Directions for Future Research

While Indonesia has been clearly active in delimiting its maritime boundaries with neighbours, it is fair to say that it is far from the completion of its maritime boundaries. In addition to international maritime boundaries, Indonesia also has a lot of internal, sub-national maritime boundaries between provinces and regencies/cites (*kapubaten*) to

settle as these administrative units have offshore jurisdiction as governed by Act Number 32 of 2004 on Regional Government.[1398] With 34 provinces and 508 *kabupaten/*cities in Indonesia, maritime delimitation will certainly take a lot of effort. Indeed, several preliminary research efforts on maritime delimitation between provinces have been conducted and published by the present author.[1399]

Pending maritime boundaries between provinces and *kabupaten*/cities have been proven to have caused disputes and tensions among them. Therefore, delimitation needs to be accelerated. For this purpose, intensive research needs to be carried out for better approach and better results. It is suggested that research in maritime delimitation for provinces and *kabupaten/*cities is an important topic for Indonesia in addition to international maritime boundaries. Not only delimitation, boundary management in relation to activities conducted by people residing around the boundary areas is equally important to be subject of research. This proposed research would investigate further how maritime boundaries can affect the life of people since borders are not only a matter of legal and technical issues. The establishment of maritime boundaries should be in such a way to facilitate people in performing their daily activities.

With regard to international maritime boundaries, the case is similar to maritime boundaries between provinces and *kabupaten*/cities. Maritime boundaries settled with through a mutual agreement with high technical accuracy are not the end of the process. Without proper management settled maritime boundaries may mean nothing to the people conducting activities border areas since maritime boundaries are invisible in nature. Apart from intentional activities, this invisible nature of maritime boundaries seems to be one of the reasons of border crossing committed by fishermen, for example. Research on the effective information dissemination and attitude of people residing around or undertaking activities near boundary areas towards maritime boundaries is essential for better boundary management in the future.

With rapid developments in navigation and telecommunication technology, the use of personal navigational aid such as handheld GPS and smart mobile phone by traditional fishermen who mainly commit unintentional border crossing is worth researching. A

[1398] Act Number 32 of 2004 on Regional Government (State Gazette Year 2004 No. 125, Supplementary State Gazette No. 4427).

[1399] See, Arsana, I M. A., Adnyana, I G. S., and Sumaryo (2007), Technical Aspects of Regional Maritime Boundary Delimitation in Indonesia:A Case Study on the Maritime Boundary Delimitation between the Provinces of Bali and Nusa Tenggara Barat, Map Asia 2007, Kuala Lumpur, Malaysia 14-16 August.

focus of future research should therefore be on the development or customisation of specifically-designed, user-friendly and affordable navigational technology. The behaviour and attitude of the users toward the use of the technology is also worth researching. Furthermore, there is urgent need for the further development of marine spatial data infrastructure for better and comprehensive understanding on the ocean, which eventually facilitates relevant parties to make decision.

Potential research in the future should focus mainly on the administration/ management aspects of maritime boundaries in Indonesia. Nonetheless, research on method of delimitation will still be important even though technically the method to draw boundary lines, for example, appears to be already settled. The recent development from two-stage to three-stage approach is a good example how new method in the entire process of maritime boundary delimitation will continue to evolve. Simply put, there is always space for improvement. As previously highlighted, even the three-stage approach appears to have sources of uncertainties to deal with and it requires improvement so that it can be implemented in future maritime boundary delimitation with higher level of certainty in terms of processes/procedures and results. This can be an important research topic in the future by testing the three-stage approach in more varied environment and cases. In addition, researches on the way people perceive maritime boundaries appears to be important for better management of maritime boundaries in the future. At the end of the day, boundary delimitation is not a terminal point but rather the starting point for comprehensive management of the ocean space. Therefore, there remains a lot to be achieved and intensive and comprehensive research on many aspects of international maritime boundary delimitation and management for Indonesia and beyond is required.

To sum up, this thesis has sought to explore challenges and opportunities in the delimitation of Indonesia's maritime boundaries. Several options of maritime boundaries between Indonesia and its neighbours were produced through the analysis of three different case studies. It is hoped that the proposed options will be viewed useful by Indonesia and its neighbouring States in their ongoing and future maritime boundary delimitation. These options of maritime boundary delimitation are with a view to enhancing the chance of Indonesia finalising its maritime boundaries and improving administration and management of its limits, boundaries and the ocean space within that.

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