1990

Maritime Boundaries of India - A Case Study

Piyali Talukdar
University of Rhode Island

MARITIME BOUNDARIES OF INDIA - A CASE STUDY

by

PIYALI TALUKDAR

A MAJOR PAPER SUBMITTED

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF MASTER OF MARINE AFFAIRS PROGRAM

UNIVERSITY OF RHODE ISLAND

1990

MAJOR PAPER

OF

PIYALI TALUKDAR

APPROVED:

MAJOR PROFESSOR 

UNIVERSITY OF RHODE ISLAND

1990

TABLE OF CONTENT

Page

LIST OF FIGURES

ACKOWLEDGEMENT

I wish to express my heartfelt gratitude to Dr. Lewis M. Alexander, Professor, Marine Affairs Programme, for his invaluable guidance, supervision and continuous encouragement throughout this project. I would also like to thank the staff of ICMRD, COMS and the main library of URI for supplying all the relevant literature without which the final outcome of the project in its present form would have been extremely difficult.

I. INTRODUCTION

The issue of the establishment of maritime boundaries between neighboring states has captured the attention of the international community and is reflected as one of the most contentious at the Third United Nations Convention on the Law of the Sea (UNCLOS III). This increasing interest and concern in the boundary delimitation question is quite justified since it directly affects all 141 independent coastal states in the world. In the past years, these states had to deal with territorial sea boundaries only. However, under a new Law of the Sea regime which allows a 200 miles Exclusive Economic Zone along with the rapid advancement of the scientific and technical knowledge in the exploration and exploitation of the living as well as non living resources in the offshore areas have created a problem with a totally new dimension. In 1951, S. W. Boggs, the former Geographer of the US State Department stated that, "never have national claims in adjacent seas been so numerous, so varied or so inconsistent".[1] Almost forty years later, the situation remains the same, only more complex. There are about 375 potential maritime boundaries and presently approximately 25% of them have been negotiated[2]. There is no delimitation principle with universal applicability since all

---

[1] S.W. Boggs "National Claims in Adjacent Seas" XL1 The Geographical Review (1951) page 105

[2] R.W. Smith "A Geographical Primer to Maritime Boundary Making: 12:1/2 Ocean Development and International Law (1982) page 3

boundary situations are geographically unique with different coastline configurations, different geological and geomorphological nature of the sea bed and water column and associated differences in the marine resources distribution. Since the extended offshore areas are coming under national jurisdiction, it is important for the coastal state to properly exploit, conserve and manage the natural resources for the development of its economy. The first step in this direction is to have a well established maritime zone with recognized outer limits.

This study examines the present status of the maritime boundaries of India in the context of applicable international laws related to boundary delimitation. As a developing nation with a long coastline and large Exclusive Economic Zone, it is important for India to define its boundary limits for better utilization and management of its marine resources. India has maritime boundaries with seven different nations; the geographical setting, political relationships and economic importances are different in each case, making each situation unique.

Since appreciation of factors such as geographical, geophysical, resource potentials, etc. can help to realize the shape of the present maritime affairs of a country, the first section reviews the relevant geographic setting, resources and the maritime jurisdiction of India. The second section deals with the international laws and regulations in the context of boundary delimitation. The third section discusses the boundary agreements that are already negotiated between India and its neighbors. The

fourth section addresses the issues relating to the other yet-to-be negotiated boundary situations. The final section summarizes the findings of the study.

II. THE MARITIME JURISDICTION OF THE REPUBLIC OF INDIA

A. THE GEOGRAPHICAL SETTING

The Indian Ocean is the third largest water body in the world, covering an area of 28,400,000 square nautical miles[3]. The ocean is approximately 9500 kilometers across between Australia and the southern part of Africa, it then tapers off further north and is finally separated by India and Sri Lanka into the Bay of Bengal and the Arabian Sea.

India is a large peninsula encircled by the Bay of Bengal on the east, the Indian Ocean on the south and the Arabian Sea on the west. It has a coastline of 7,517 kilometers[4] and over 1,280 islands and islets including the mid-ocean archipelagos of Andaman-Nicobar in the Bay of Bengal and Lakshadeep in the Arabian Sea. India's continental margin extends over a large area of the Bay of Bengal and Arabian Sea. The three major rivers of the subcontinent, the Indus, the Ganges and the Brahmaputra, have accumulated sediments which in turn have influenced the shape of the continental margins. On the northwest side, the shelf area in the Arabian Sea extends from about 100 kilometers to 160 kilometers in a southwesterly

---

[3] Roonwal G.S. "The Indian Ocean : Exploitable Mineral and Petroleum Resources" Springer-Verlag, W.Germany 1986 page 7

[4] UN/FAO, Fishery Country Profile, India, FID/CP/IND REV.3 May 1985

from about 100 kilometers to 160 kilometers in a southwesterly direction near the Gulf of Kutch.[5] The continental shelf on the western side widens about 300 kilometers off the Gulf of Cambay. In the southern part of Bombay, the coast is almost straight and the continental shelf broadens to a maximum of 220 kilometers near the southwestern point of Bombay and narrows gradually to about 60 kilometers near 10^0 N Latitude. At the southern tip of the Indian Peninsula, near Cape Camorin (Kanya Kumari) the continental shelf widens to approximately 100 kilometers in the Indian Ocean. The shelf then follows the northeasterly direction along the Gulf of Manaar towards the island of Pamban which is located at about $9^020'$ N, 79^0 E. Near the island of Pamban, the shelf narrows to approximately 25 kilometers.

Throughout the east coast of India, the width of the continental shelf varies between 25 kilometers and 60 kilometers.[6] However near the Ganges delta the shelf broadens to about 210 kilometers. In the Bay of Bengal, the Bengal Cone is among the world's largest abyssal cones. It is formed by the sediment redeposition from the Ganges-Brahmaputra rivers. It widens seawards to approximately 1000 kilometers and almost 300 kilometers in length.[7] The sediment thickness exceeds 10 kilometers The foot of the continental slope in the Bay of Bengal is at an

---

[5] Pepper J. F. and Everhart G.M. "The Indian Ocean : The Geology of Its Bordering Lands and the Configuration of Its Floor" U.S. Geological Survey. Misc. Geological Inv. Map 380 (with reports) page 1-33

[6] Narain H., Kaila, K.L. and Verma R.K. "Continental Margins of India" 5 Canadian Journal of Earth Science (1968) page 1053

[7] James Kennet "Marine Geology" (1982) page 422

average distance of 50 nautical miles from the coast and the water depth over the continental rise is up to 3600 meters in areas where the sediment thickness is appreciable.[8]

The Andaman and Nicobar islands, located between the Indian Ocean, the Bay of Bengal and the Andaman Sea, constitute an island arc that from the south runs first in the north-south direction and then takes a westerly turn. From Cape Negaris, the southernmost point of the Arakan Yoma range, the arc can be recognized as a chain of over 200 islands up to the south west tip of Sumatra.[9] As one moves further south, the island groups are recognized as a submarine range between the island of Java to the north and the Java trench to the south. The belt extends ease-west in this part. The range emerges further to the east above the sea level as the island of Timor. Altogether India claims jurisdiction over a shelf area of 415,793 square kilometers in accordance with its domestic and international laws.[10]

---

[8] Supra note 7 at page 150

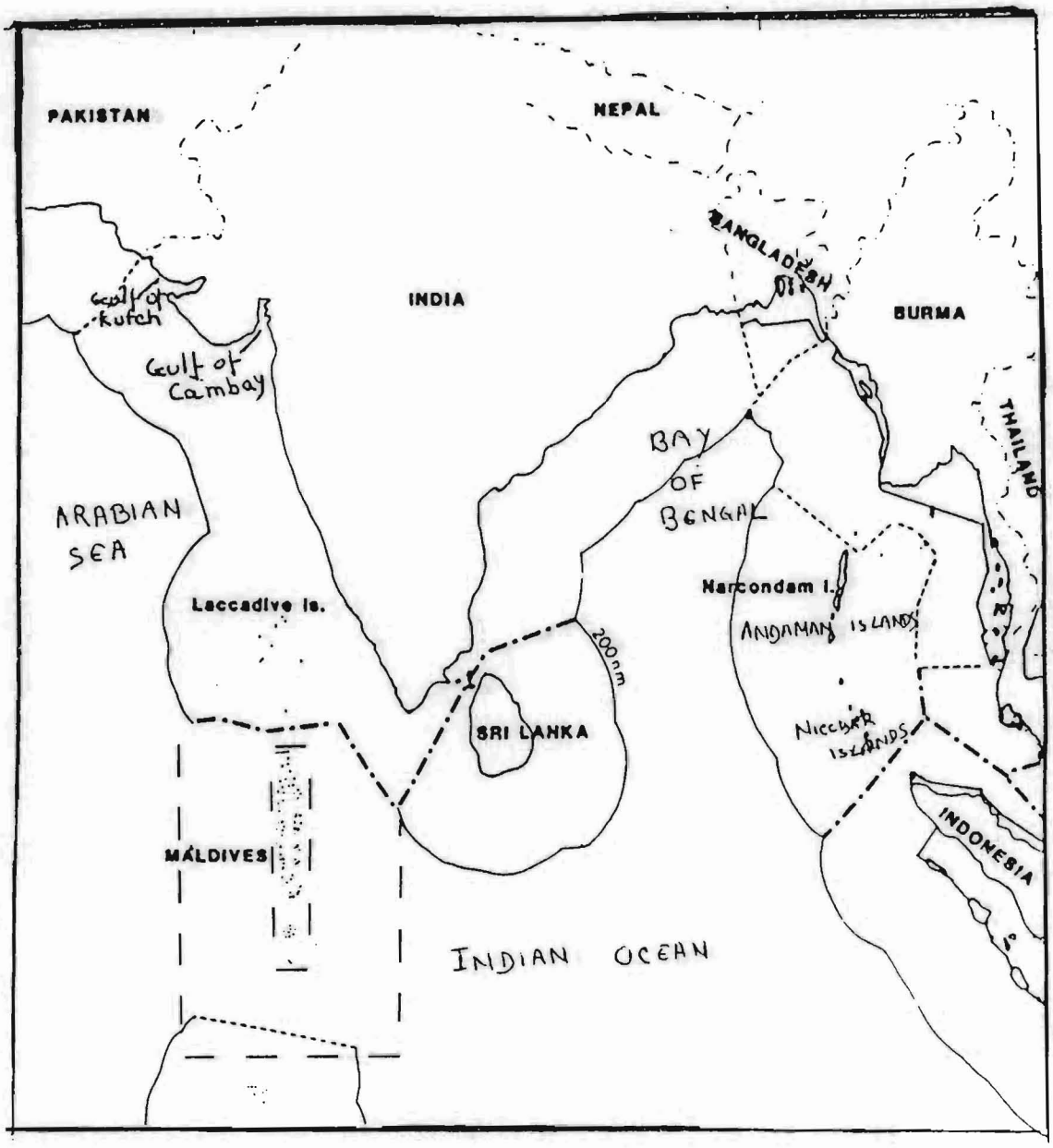
[9] For more information on Andaman-Nicobar, see Karunakaran C., Ray K.K. and Saha S.S. "A Revision of the Stratigraphy of Andaman and Nicobar Islands, India" in Proceedings of the Symposium on Indian Ocean. New Delhi (9167) National Institute of Sciences of India.

[10] The Gazette of India, Part II Section 3, 3rd December 1956 page 2613

FIGURE 1

THE AGREED AND POTENTIAL BOUNDARIES IN THE INDIAN CONTINENTAL SHELF REGION

___200 nautical miles limit _ . _ agreed boundaries _ _ potential boundaries



SOURCE : The Maritime Political Boundaries of the World by J.R.V. Prescott, Methuen New York 1985

B. *RESOURCE APPRAISAL*

NON LIVING RESOURCES

From the point of view of oil and gas, the Indian continental shelf is extremely important to the development of the country. In 1985, it was estimated that the Indian continental shelf up to a depth of 200 meters isobath, has a potential oil reserve of 1 billion tons and a natural gas reserve of approximately 271 bcm.[11] With an 8% annual growth rate in energy consumption, the Oil and Natural Gas Commission of India has realized the increasing need for offshore oil exploration. On the west coast of India, several dome-like structures that contain quite a few important oil and gas fields including the Bombay High have been discovered in the past few years.

The sediments of the Arabian Sea and the Gulf of Kutch seem to be favorable for petroleum deposition. The southwest coast of India, the Kerala coast, which contains quaternary sediments ranging from 150 meters up to 2500 meters in thickness in the shelf area is also known to have offshore oil seeps.[12] In the Bay of Bengal region, the Ganges Cone contains a thick pile of sediments and according to different studies, hydrocarbons may be found along the coastal areas of the Cauvery basin and exploration efforts should extend in a

---

11 Sinha P.C. "India's Ocean Policy - South Asian and Global Perspectives" page 165

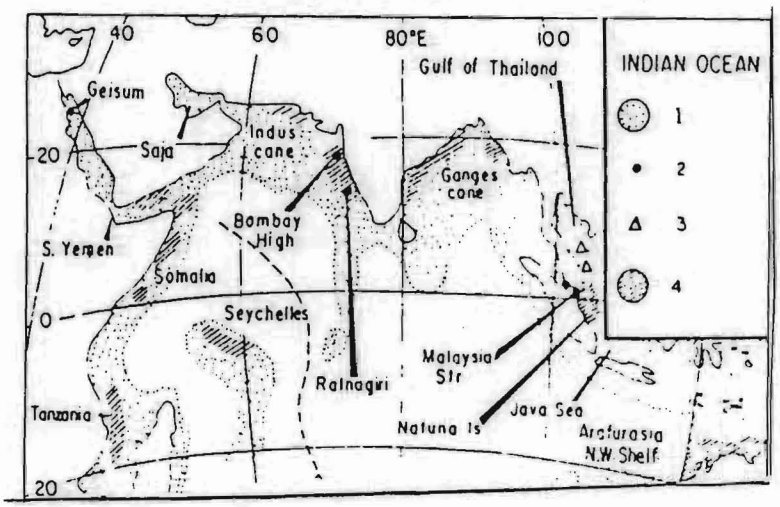
12 Supra note 3 at page 150

south easterly direction in the offshore areas as far as the Sri Lankan coasts. [13]

India first started its offshore oil exploration in 1963 at the Narmada river region which flows into the Gulf of Cambay. In the later years, surveys and explorations covered a wide range of areas in Gulf of Kutch, Gulf of Cambay, coasts of Kerala, Gulf of Manaar, the Palk Strait, the eastern coast and the Bay of Bengal region. Natural gas resources have been also found in the offshore areas off Andaman islands.

FIGURE 2

OFFSHORE SEDIMENTARY BASINS AND PROSPECTIVE AREAS FOR HYDROCARBONS IN INDIA



1 Major sedimentary basins 2 oil / gas discovered
3 New fields being developed 4 Interesting exploration plays
SOURCE: G.S. Roonwal The Indian Ocean : Exploitable Mineral and Petroleum Resources : 1986 Springer-Verlag, West Germany

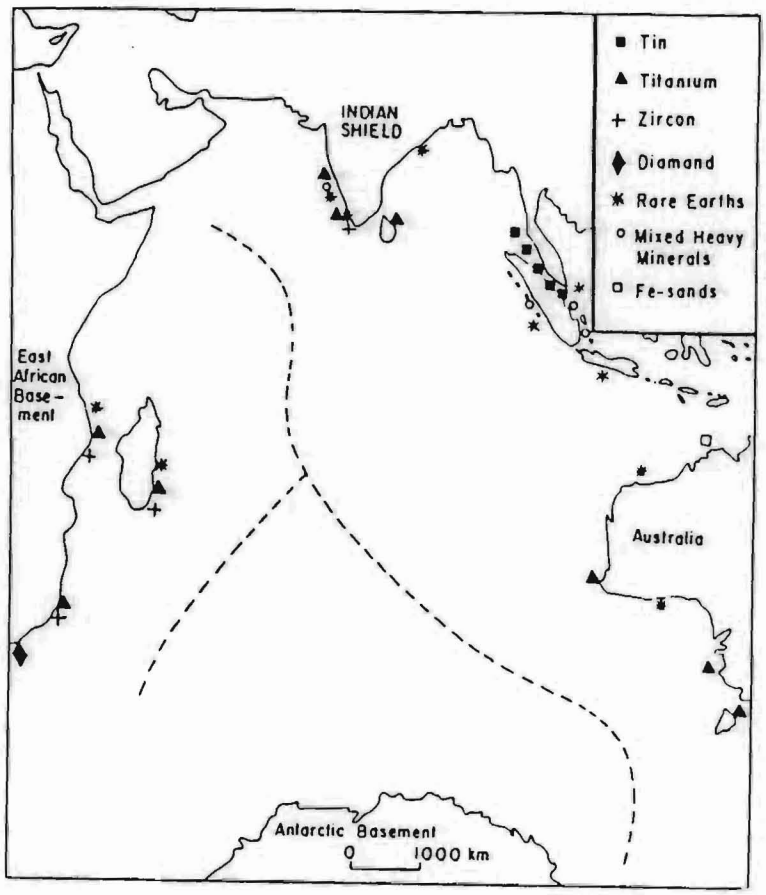
---

[13] Supra note 3 at page 151 See also Sastri V.V., Sinha R.N., Singh G., Murti K.V.S. "Stratigraphy and Tectonics of Sedimentary Basins of East Coast of Peninsular India" Bull Am. Assoc. Petrol. Geol. 57:4 (1973) page 655-678

Although the Indian subcontinent does not fall in the South East Asian Tin Belt Region, heavy minerals like titanium, zircon, and rare earth can be found on the Indian continental shelf.

FIGURE 3

OCCURRENCE OF HEAVY MINERAL PLACER DEPOSITS ON THE INDIAN SHELF



SOURCE: G.S. Roonwal The Indian Ocean : Exploitable Mineral and Petroleum Resources : 1986 Springer-Verlag, West Germany, page 54

Ferromanganese deposits, abundant in several basins in the Indian Ocean region, do not fall within the Indian Exclusive Economic Zone. However, India has undertaken a study of polymetalic nodules as a Research & Development Project and later has extended the Project into an exploratory program. India took a positive stride towards the program goal in January 1984 when it filed a claim with the United Nations for a pioneer area of 4 million square kilometers in the central Indian Ocean basin. In July 1987, the Government of India submitted a revised application and has been registered as the pioneer investor after the approval of the General Committee of the Prepatory Commission. A mining area of 150,000 square kilometers has been allotted to the Government of India since then.

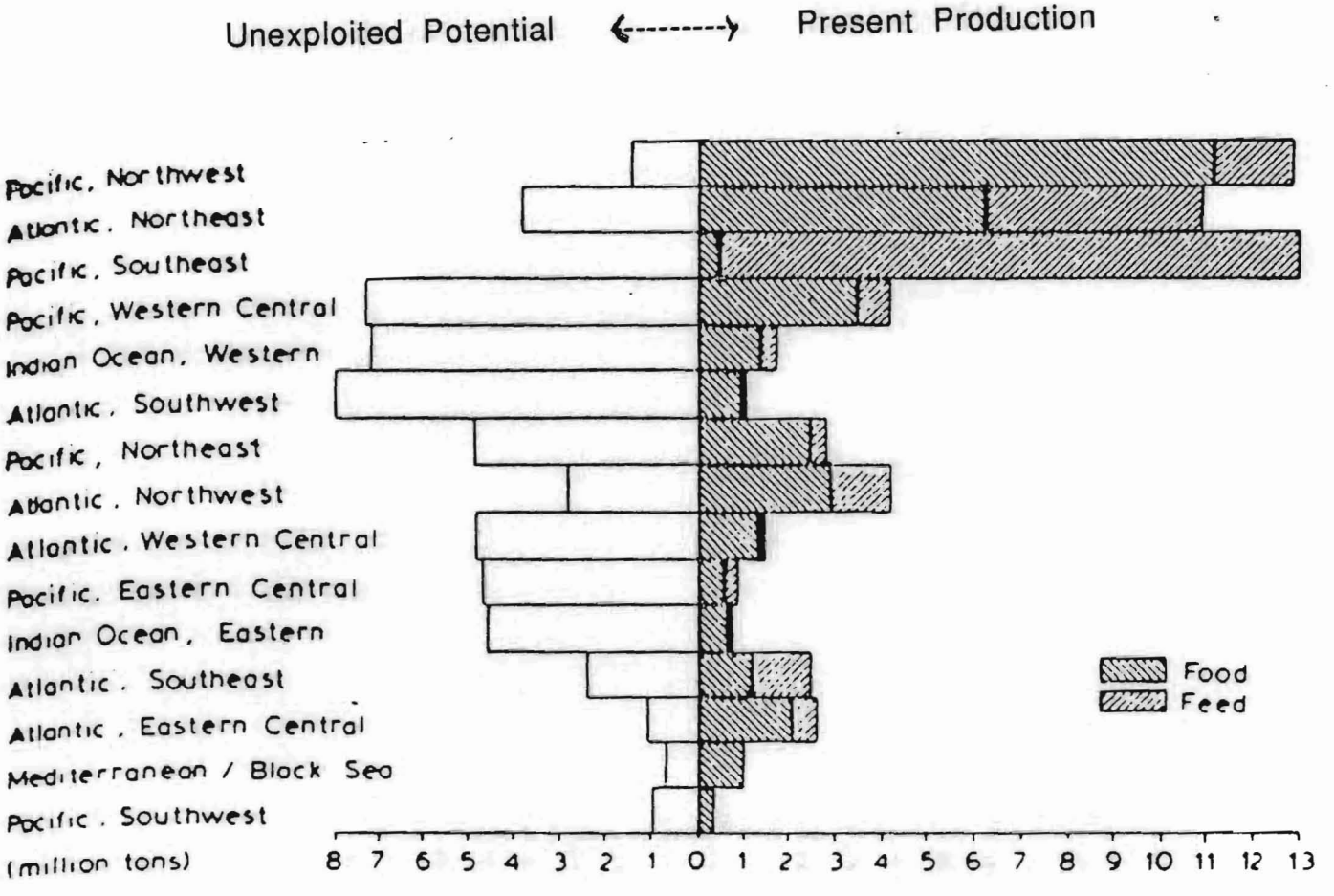
LIVING RESOURCES

India is rich in living marine resources which however, remain greatly underutilized. This underutilization of marine resources in India is reflected in the overall underutilization of the marine resources in the Indian Ocean where most of the coastal states are less developed nations. The United Nations FAO Yearbook[14] reported that of approximately 70 million metric tons of marine fishes which were caught worldwide in 1986, only 4 million metric tons were caught in the Indian Ocean region, i.e. a mere 6 percent of world's

[14] FAO / UN "Fisheries Country Profile" May 1985

total catch. The figure below depicts the existence of a vast portion of unexploited potential in this region.

FIGURE 4
PRESENT/UNEXPLOITED LIVING RESOURCE POTENTIAL IN THE WORLD'S OCEAN



SOURCE : Manjula Shyam "The New International Economic Order & The New Regime of Fisheries Management" 8 Ocean Management 1982 page 55

This unexploited living resource in the coastal waters of the less developed countries has drawn the attention of policy makers. The effective utilization of the unexploited fishery resources can not only feed millions of hungry mouths in the coastal states but also provide the opportunity to earn vital foreign exchange for the development of the country's socio-economic structure.

Although India is traditionally an agricultural economy, the geographical and geologic features with a coastline of 7517 km has placed fishery as an important sector in it's economy. In 1983, the total fisheries production was about 2.6 million tons, of which 1.6 million tons came from marine fishery sector[15] i.e. approximately 61.5 percent of the total catch. Another striking feature of Indian marine fisheries is its very uneven distribution. For India, as much as 70 percent of the marine harvest comes from the west coast, especially from Kerala[16] which is also the most densely populated state in India. However, it should be borne in mind that major diversities exist in the food habits among different states in India. Among the 25 states and 4 union territories, only nine states are coastal and it is only in these states that fish is considered as a major component in the everyday meal.

The Indian fishery sector consists of three different groups of operators depending upon the techniques and equipment used and the capital intensity. The 1981 census reported about 4.8 million people engaged in small scale fishery. The small scale

---

15 ibid

16 Alagaraja, Kurup, Srinath and Balkrishnan "Analysis of Marine Fish Landings in India" CMFRI, India, 1982

operators traditionally used indigenous crafts constituting different types of catamarans, canoes and wooden boards.[17] This small scale fishery population is very similar in nature around the world. The labor intensive industry may contribute to the employment situation in the economy but the lack of advanced equipment and proper technology makes the operations less productive and less profitable than the medium and large scale operations.

In the sixties, the realization of the export potential of marine products gave a significant boost to the fishing industry and resulted in an increase of the small mechanized boats, and the advent of purse-seiners and motorization of indigenous crafts. According to the Central Marine Fisheries Research Institute's Report[18], marine fish production increased from 0.6 million tons in the fifties to 1.7 million tons in 1986. The landings have increased steadily over the years, reaching peaks during 1966-70 and 1971-75. This can be attributed to intensification of mechanization. After these periods, the landings increased but at a declining rate. Various studies[19] analyzed the reasons for the stagnation of marine fish production despite the estimated potential of 4.5 million tons from the EEZ alone. Alagaraja based his study on the relative response mode and maximum contribution approach and estimated

---

17 See Development of Small Scale Fisheries in Southwest Asia,Working Paper No. 8, 10 and 15, published from Colombo 1977

18 James P.S.B.R. "Management of Marine Fisheries of India" The First Indian Fisheries Forum, Proceedings 1988 Asian Fisheries Society, Indian Branch, Managalore, India

19 Alagaraja K.A. "A Brief Appraisal of Marine Fisheries in India" National Symposium on Research and Development in Marine Fisheries Cochin 1987

the potential yield from the 0-50 meter depth area as 2.2 and 2 million tons respectively. Therefore, despite the technological progress, the fishing effort remains concentrated at a depth zone of 0-50meters.

Since the maritime fishery resources in Indian coastal waters embraces a wide range of both pelagic and demersal species, it is estimated that both the species are substantially underutilized. The estimated potential of pelagic resources is 1.85 million tons whereas the yield is only .80 million tons. The longline operations have identified tuna as an important species found in the Indian EEZ. The potential yield of tuna is approximately 500,000 tons and mainly consists of yellow fin, big eye and skip jack tunas.

The estimated potential of the demersal fin fish resources of Indian EEZ is 1.1 million tons, however the current yield barely reaches one third of the total estimate. The important resources in this category are catfish, carangids, sciaenids, perches, barracudas etc.

The situation changes, however, when one considers the crustacean resources. The MPEDA estimated the potential resources as 336,000 tons as against the average landings 217,418 tons, meaning that approximately 65% of the potential resource is already being exploited. Another important resource is the cephalapod species. The zone between 50-200 meter is indicated as having good potential grounds for these species. One study[20]

---

20 supra Note 17

indicated that there is a vast potential resource of oceanic squids which is still underutilized.

Since the fisheries of Indian Ocean are relatively underexploited compared with those of the other areas, with the exceptions of tunas and crustaceans, most of the categories of the fish stocks are still well below their biological sustainable levels. The tunas are harvested mainly on the high seas by non-Indian Ocean countries. But the crustaceans especially the shrimp, are almost entirely taken by the Indian coastal states either by their domestic fleets or by the foreign fleets licensed by the coastal states. In the Indian Economic zone, the maximum sustainable yield for demersal and shoaling pelagic resources are estimated as approximately 1.3 million tons each. The potential catches of crustaceans are estimated between 200,000 tons and 250,000 tons. The potential harvesting capacity of tuna and skipjack are estimated as high as 250,000 tons[21]. Since Indian fishermen have begun their distant fishing operations only very recently, there exists a great potential for harvesting underutilized resources.

However, to explore and exploit the marine resources, India requires a substantial capital investment in terms of well equipped fleets, and trained and experienced man power, for the production as well as processing and marketing. A policy approach aimed at this target-oriented exploitation is needed. The Government of India proposed a plan which would implement the deep sea fishing activities in the Indian EEZ by introducing up to 500 vessels during

---

[21] Marine Products Export Development Authority (MPEDA), India "Indian Fishery handbook" 1988

the seventh five year plan. However the program has not yet been implemented as the capital is diverted to other sectors. The traditional reluctance of the Indian consumers to use marine fisheries as an alternative to the river or fresh water fishes is also making the deep sea fishing economically unprofitable in the domestic market. Nevertheless the realization that the production of marine fish can bring India the foreign exchange necessary for its development, encourages joint ventures between Indian and foreign nationals for a more effective utilization of marine resources.

Therefore, both living and non-living resources play an important role in shaping India's domestic and foreign policies since theses are vital to the country's economic health. Thus it is for India to have well defined land as well as offshore areas for effective utilization, management and conservation of these resources. The next section takes a cursory look at the Indian domestic law which provides the basic framework for the offshore jurisdictional issues.

C. THE JURISDICTION

India currently claims a territorial sea of 12 nautical miles in breadth,[22] a contiguous zone of 24 nautical miles[23], an exclusive economic zone of 200 nautical miles[24], and sovereign rights for the purposes of exploring ad exploiting the resources of the continental shelf[25].

Under the 1982 Third United Nations Law of the Sea Convention, the outer limits of the territorial sea, contiguous zone, exclusive economic zone and the continental shelf are all measured from the baseline from which the breadth of the territorial sea is measured. India has chosen to apply the normal baseline or the low water mark for measuring the breadth of territorial sea, contiguous zone, exclusive economic zone and the continental shelf.[26]

India issued its first Proclamation on the issue of national jurisdiction of its maritime zones on 30th August, 1955. The Presidential proclamation stated that,

---

22 Third UN Convention on the Law of the Sea (1982), UN Document A/Conf. 62/122 Article 3-limited the breadth of the territorial sea up to 12 nautical miles. Before independence and as early as 1871, India used to claim three nautical miles of territorial sea. Bombay High Court's decision confirmed that the Court could try offenses within three maritime belts. - See T.S. Rama Rao "Some Problems of International Law in India" 6 Indian Yearbook of International Affairs (1957) page 13

23 The breadth of the contiguous zone is also specifically limited by the Article 33(2) of UNCLOS III

24 article 57 of UNCLOS III

25 Article 76(4) of the UNCLOS III

26 Article 297 of the Indian Constitution as amended (40th Amendment).

"whereas valuable natural resources are known to exist on the sea bed and in the sub soil of the continental shelf and the utilization of such resources is being made practicable by modern technological progress;

And whereas it is established by international practice that for the purpose of exploring and exploiting such resources in an orderly manner every coastal state has sovereign rights over the sea bed and sub soil of the continental shelf adjoining its territory;

Now, I, Rajendra Prasad, President of India, in the sixth year of the Republic, do hereby proclaim that, India has and always had, full exclusive sovereign rights over the sea-bed and sub-soil of the continental shelf adjoining its territory and beyond its territorial waters";[27]

The Proclamation said nothing about the character of the waters above the continental shelf or the airspace above it, although state practice on the issue shows that similar declarations made by other coastal nations either claimed or denied their rights in respect of waters above the continental shelf. The Proclamation also did not specify the outer limit of the continental shelf. According to the Proclamation, India has "full and exclusive sovereign rights" over the continental shelf. Thus it could be inferred that the Proclamation intended that India has rights over the continental shelf itself and not only over the natural resources of the shelf.[28]

India issued its next Proclamation on 22nd March 1956 on the Territorial Sea. The Proclamation declared that "notwithstanding any rule of law or practices to the contrary which may have been

---

[27] Reproduced in Chandrashekhara Rao "The New Law of the Maritime Zone" page 80

[28] ibid at page 80-83; 191; 198; and also V.S. Mani "India's Maritime Zones and International Law" 12:3 Journal of Indian Law Institute (1973) page 364-369

observed in the past in relation to India or any Indian territories thereof, the territorial sea of India extends to a distance of six nautical miles from the appropriate baseline.[29] This Proclamation implicitly acknowledge that until the said Proclamation was issued India had a territorial sea other than six nautical miles.[30] The Proclamation indicated that the international practices on the issue were not uniform and the Government of India had reviewed its position as a response to the inquiries and circulars distributed by the United Nations at that time.[31] The Government of India did not offer any rationale for the change. However, the statement issued by the Indian Representative at the Sixth Committee somewhat cleared the situation. It was said that,

"The three mile rule was unrealistic, it had lost all practical value and was now only of historic interest. To impose it on states whose new needs demanded a greater breadth would be to thwart the progressive development of International Law. Since some states applied the old rule while overriding considerations compelled other states to adopt a greater breadth, the practical answer would be to permit all states to fix the breadth of their territorial sea up to a maximum of 12 nautical miles at their own discretion and in the light of local requirements."[32]

---

29 The Gazette of India, # 81 of March 22, 1956

30 Supra note 4

31 K.P. Misra "Territorial Sea and India" 6 Indian Journal of International Law (1966) page 468

32 UN General Assembly, eleventh Session, sixth Committee, December 6, 1956 Reproduced in supra note 12 at page 469

The Proclamation on the Territorial Sea was followed by another Presidential proclamation on 3rd December 1956 on the contiguous zone of India.[33] This Proclamation claimed a contiguous zone of 12 nautical miles measured from the baseline from which the breadth of the territorial sea is measured. Thus in 1956, the Indian claim consisted of a 6 nautical miles of territorial sea and an additional 6 nautical miles of contiguous zone. However, on 30th September 1967, by another Presidential Proclamation, India extended its territorial sea up to a distance of 12 nautical miles and merged the contiguous zone with its territorial sea. The 1967 Proclamation superseded both the former 1956 proclamations on the territorial sea as well as on the contiguous zone.

In 1973, when the Third United Nations Convention on the Law of the Sea began, it was widely accepted that the state practices regarding the national maritime claims were changing. Several states, including the United states, Mexico, USSR and the member countries of EEC, enacted national legislations on either a 200 mile exclusive economic zone or a 200 mile exclusive fisheries zone. The concept of EEZ was slowly gaining international acceptance. India, on its part, amended its constitution and later adopted the Maritime Zones Law of 1976.

The Article 297 of the Indian Constitution originally read:

---

[33] The Gazette of India Part II Section 3, 3rd December 1956 page 2613

All lands, minerals and things of value underlying the ocean within the territorial waters or the continental shelf shall vest in the Union and be held for the purposes of the Union.

After the Fortieth Amendment, Article 297 read as follows :

1. All lands, minerals and things of value underlying the ocean within the territorial waters or the continental shelf or the exclusive economic zone shall vest in the Union and be held for the purposes of the Union.

2. All other resources of the exclusive economic zone of India also shall vest in the Union and be held for the purposes of the Union.

3. The limits of the territorial waters, the continental shelf , the exclusive economic zone and other maritime zone of India, shall be such as may be specified, from time to time by or under any law made by the Parliament.

The Maritime Zones Act of 1976

The Maritime Zones Act of 1976 was enacted to provide a legal framework specifying the nature, scope and extent of the Indian rights, jurisdiction and control in the various maritime zones claimed by India. The Act declared a territorial sea of 12 nautical miles and a contiguous zone of 24 nautical miles. Section 3 of the Act provides that:

1) The sovereignty of India extends and has always extended to the territorial waters of India and to the sea bed and subsoil underlying, and the air space over, such waters.

2) The limit of the territorial waters is the line every point of which is at a distance of twelve nautical miles from the appropriate baselines.

Section 6 of the Act deals with the continental shelf. Section 6(1) defines the Indian continental shelf as:

the seabed and subsoil of the submarine areas that extend beyond the limit of its territorial waters throughout the natural prolongation of its land territory to the outer edge of the continental margin or to a distance of 200 nautical miles from the baseline... where the outer edge of the continental margin does not extend up to that distance.

Section 7(1) defines the exclusive economic zone of India as an area "beyond and adjacent to the territorial waters" and stated that the breadth of the EEZ should be measured from the appropriate baseline used for measuring the breadth of the territorial sea.

Section 8 of the Act addresses the issue of historic waters and provides that:

1) The Central Government, may by notification in the Official Gazette, specify the limits of such waters adjacent to its land territory as are the historic waters of India.

2) The sovereignty of India extends and has always extended to the historic waters of India and to the seabed and subsoil underlying and the airspace over such waters.

The next section, section 9 of the Act, prescribes some guidelines for the delimitation of boundaries of all the maritime zones between India and any State whose coast is opposite or adjacent to that of India. The section recommended that the

boundaries shall be determined by agreement and in the absence of agreement and unless any provisional agreements are made between them:

the maritime boundaries between India and such State shall not extend beyond the line every point of which is equidistant from the nearest point from which the breadth of the territorial waters of India and of such States are measured.

In other words, in the absence of any agreement, the maritime boundary should not extend beyond the equidistant line. Therefore, India's maritime agreements with its neighbors should follow the equidistant line as a basis of delimitation unless no agreement to the contrary is reached.

The establishment of a 200 nautical mile EEZ and the claim over the continental shelf area brought India into contact with a number of neighboring states. Boundary questions arise with states adjacent to India or opposite states wherever the coasts of the two countries are less than 400 miles apart. In the Bay of Bengal region, India has continental shelf/EEZ boundaries with Indonesia, Thailand, Burma and Bangladesh. In the Indian Ocean, India has maritime boundaries Sri Lanka,and the Maldives. In the Arabian Sea, the Indian coasts come within 400 nautical miles of the coasts of the Maldives and Pakistan. Of its seven neighboring States, India has reached agreements with five, leaving two boundaries still in dispute. The next section briefly reviews the international law which provide the framework to resolve the boundary issues.

III INTERNATIONAL LAWS AND REGULATIONS

A cursory look at the world map reveals that with the exception of Antarctica, the world's land surface is effectively partitioned between States. As colonial empires disappeared, a number of new countries emerged with their land boundaries, although sometimes disputed, inherited from the colonial powers. By contrast, very few countries inherited maritime boundaries from the colonial period.[34] The emergence of the newly independent countries coupled with the ocean enclosure movement resulted in a number of potential boundary situations needing to be resolved. The process of boundary delimitation normally begins when two countries make overlapping claims. In the offshore area, there are four juridical zone to delimited. First, or the closest to the land boundary, are the internal waters, such as bays and estuaries, beyond which the territorial sea begins. There are no international rules for delineating the boundaries in the internal waters. Traditionally, it follows the concept of "the land dominates the Sea" and the offshore boundary closest to the land mass is regarded as an extension of the land boundary. To delimit the boundary in river deltas or estuarine areas, in most cases, the dispute arises when one party claims the median line or the thalweg, whereas the other

---

34 J.R.V. Prescott " "The Maritime Political Boundaries of the World" (1985) page 82

one claims special circumstances or historic rights. State practice shows that, in this situation, the median line, the mid line of Thalweg or the historic claims dominate the delimitation issue and determine the boundaries between adjacent countries.[35] For example, treaties between United States and Great Britain, in 1783 and 1814, defined the boundary in the Great Lake as the "middle" of several lakes and water communication. In the Ems-Dollart estuary between West Germany (FRG) and the Netherlands, the Germans claimed historic rights to the water body whereas the Dutch claimed that the boundary should be delimited following the 'thalweg'.[36]

Boundaries in the territorial sea are of two situations - the boundary could be delimited for the opposite states or it could be delimited for the adjacent states. Historically, there are three general approach to resolving the territorial sea boundary of the adjacent states. They are - 1) a seaward continuation of the land boundary, 2) a line perpendicular to the general direction of the coast and 3) an equidistant/median line which divides the offshore area approximately into two equal parts.[37] The first two methods are applicable solely to adjacent coast lines and depending on the general configuration of the coast, and the presence of offshore islands or other feature, the situation can be quite complicated and detrimental to one party. The third method refers to the equidistant/median line which would be equidistant from the

---

35 Boggs S.W. "International Boundaries" (1966) page 178

36 Alexander "Equidistance and maritime Boundary" Paper Presented at the Conference of the International Boundary Research Unit (1989) England

37 ibid

nearest base points from the both coasts; this method could be applied to both adjacent and opposite states. However, the method of construction of the equidistant/median line received very little importance until S.W. Boggs, the former Geographer of the State Department offered a definition. According to S.W. Boggs, the median line between adjacent states is defined as " a line every point of which is equidistant from the nearest points on the shores of the two sovereignties"[38]. However, Boggs did not say anything about the boundaries of opposite coasts.

The issue of delimitation surfaced again when the International Law Commission started to codify international laws and in its final report recommended that "in absence of agreement and unless another line is justified by special circumstances", the most acceptable solution to delimiting the territorial sea for opposite states is the "median line, every point which is equidistant from the nearest point in the baseline from which the breadth of the territorial sea is measured.[39] For the case of adjacent states, the commission recommended similar conditions except that the boundary should be drawn "by application of the principles of equidistance". The 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone, incorporated the recommendations of ILC with a slight modification. Article 12 of the Convention read as follows,

---

38 S.W. Boggs "Problems of the Water Boundary definition, Median Line and International Boundaries through Territorial Waters" page 449

39 UN Report of I.L.C., General Assembly, 11th Session, supplement # 9 (A/3159) NY (1956)

"Where the coasts of two states are opposite or adjacent to each other, neither of the two states is entitled, failing agreement between them to the contrary, to extend its territorial sea beyond 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. The provisions of the paragraph shall not apply, however, where it is necessary by reason of historic title or other special circumstances to delimit the territorial seas of two states in a which is at variance with this provision".

The Provisions of Article 12 are accepted almost verbatim in Article 15 of the Third Law of the Sea Convention in 1982.

Up until the 1940,'s, the internal and territorial sea boundaries were the only maritime boundaries to be concerned about. However, the Truman Proclamation (1945) on the continental shelf, claimed exclusive jurisdiction and control over the natural resources of the United States' Continental Shelf. The Truman Proclamation virtually opened a new door for the extending of national jurisdiction beyond the territorial sea, and soon after this, a number of countries followed suit.

Although the Truman Proclamation proposed that the delimitation of the continental shelf boundary should be in accordance with 'equitable principles' it did not provide any guidelines for the "equitable principles".[40] The International Law Commission, while attempting to codify customary international law, did not take into account the Truman proposition and recommended that the guidelines for delimitation of the territorial

---

40 The Truman Proclamation on the Continental Shelf (1945)

sea boundary would be applicable to the continental shelf as well. Article 6 of the Convention on the Continental Shelf, thus, provided that "in absence of agreement and unless another boundary line is justified by special circumstances, the boundary of the opposite coasts should be the median line whereas "the boundary shall be determined by application of equidistance" between the adjacent states.

Therefore, until 1958, there appeared to be three separate principles for the delimitation of territorial sea or continental shelf boundaries. They are delimitations - based on agreements; based on special circumstances; or based on the equidistant line. However, between the First Law of the Sea Conventions and the Third Law of the Sea Convention, state practice, Court Cases and Arbitral Awards shifted the focus from the method of delimitation to the results of the delimitations. Over time the basic principle of international law relating to the delimitation of maritime boundaries evolved to incorporate the concept of "equitable principles" which first appeared in the Truman Proclamation and subsequently gained importance in several court cases relating to boundary disputes.[41] Although the concept of equity is quite abstract and subjective, the acceptable and popular version of international law relating to maritime boundary delimitation proposes that the delimitation must be in accordance with equitable

[41] The first International Court Case using the phrase "equitable principles" is the North Sea Continental Shelf Case (1969)

principles, taking into account all relevant circumstances in order to produce equitable solution.[42]

The general trend to downplay equidistance in favor of an equitable solution is reflected in the provisions of the Third UN Law of the Sea Convention. Articles 83 addresses the issue of delimitation of the continental shelf boundary and reads as follows:

"The delimitation of the continental shelf between states with opposite or adjacent coasts shall be effected by agreement on the basis of international law... in order to achieve an equitable solution." The third UN Law of the Sea Convention also recognizes coastal states' authority over the 200 nautical mile exclusive economic zone. The new extra-territorial claims relating to the EEZ made the delimitation issue more complicated. Article 74 refers to the boundary delimitation of the EEZ following the same guidelines as Article 83 and suggests that delimitation should be done by "agreement on the basis of international law ..... in order to achieve an equitable solution". There was no reference to the median line or the equidistant line. Therefore, the emphasis has been shifted from the methods to the results. To achieve an equitable solution, different methods could be employed depending on the circumstances. Among them are 1) an equidistant or modified

---

[42] E.B.Feldman "Tunisia-Libya Continental shelf Case : Geographic Justice or Judicial Compromise?" 77 American Journal of International Law (1983) page 219-238

equidistant line 2) a line perpendicular to the general direction of the coast 3) a boundary based on proportionality.[43]

Within this international framework, the Indian maritime boundaries are analyzed in the following section.

[43] A.O. Adede "Toward the Formula;ation of the Rule of Delimitation of Sea Boundaries between States with adjacent or Opposite Coasts" 19:2 Virginia Journal of International Law and Policy (1979) page 207

IV. BOUNDARY AGREEMENTS BETWEEN INDIA AND ITS NEIGHBORS

As of today, India has nine boundary agreements with its five different neighboring countries. In the Indian Ocean, India settled its continental shelf boundary with the Maldives. In Palk Bay and the Gulf of Manaar, India settled its internal/historic water boundary with Sri Lanka. India also settled its territorial sea boundary with Sri Lanka in the Bay of Bengal region. In the Bay of Bengal region, India has continental shelf boundaries with Indonesia, Burma and Thailand where the coasts are within 400 nautical miles of each other. However, with all these five countries, India does not have any land boundaries. One of the major components of boundary delimitation is the influence of the national legislations and state practices by the parties involved.

The national legislations enacted by each state relating to offshore jurisdictional areas, especially the baseline provisions, implicitly play an important role in the delimitation process. The baseline adopted by the states are important since all the offshore national maritime zones are measured from them. Thus the outer limit of an particular zone are determined by the appropriate baselines. The following table provides the jurisdictional claims India and its neighbours put forward along with their baseline provisions.

Country	TERRITORIAL SEA (n.m.)	EEZ (n.m.)	BASELINES
Bangladesh	12	200	Straight
Burma	12	200	Straight
India	12	200	Normal
Indonesia	12	200	Archipelagic
Maldives	12	200	Archipelagic
Pakistan	12	200	Normal
Sri Lanka	12	200	Normal
Thailand	12	200	Straight

In the framework of the jurisdictional claims, in the following section, all these negotiated boundary situations are reviewed individually to find out whether the baseline provisions adopted by the countries have affected the situation and also whether there are any discernible trends in the delimitation procedure.

i) INDIA-SRI LANKA

These two countries completed the process of boundary delimitation in 1977 through three separate agreements and established a boundary of approximately 604 nautical miles. There are two agreements (1974 and 1977) concerning the delimitation of their historic waters in Palk Bay and the Gulf of Manaar respectively.

Palk Bay and the Gulf of Manaar are two bays which separate mainland India from Sri Lanka and are separated from each other by the Rameshwaram and Adam's Bridge which is a continuous line of coral reefs running east to west. Palk Bay which is an inlet of the Bay of Bengal, is about 74 nautical miles in length (along a north-south axis) and 76 nautical wide (along its major east-west axis). Palk Strait, which is approximately one ninth of circumference of the Palk Bay, connects it to the Bay of Bengal. It is virtually land-locked for all practical purpose with numerous rocks, reefs and shoals making the water almost unnavigable. The Gulf of Manaar, on the other hand, is surrounded by the Indian mainland on the west, Sri Lanka on the east and Adam's Bridge on the north. It opens into the Indian Ocean in the south. The Gulf is about 200 nautical miles wide between Point De Galle on the Sri Lankan coast and Cape Comorin (Kanya Kumari) on the Indian Coast. The distance between the closest points in the two opposite coasts is approximately 17 nautical miles. Both India and Sri Lanka claimed historic waters in that area showing their respective historical usage and the

economic importance of the region. These regions are economically important to both countries for their chank fisheries (although popularly included among shell-fish, but really large molluscs) and pearl beds. In this context, the case of Annakumaru Pillai vs. Muthupayal resolved in Madras High Court (1904), India should be noted.[44]. It was shown by evidence that Palk Bay and the adjacent part of the Gulf of Manaar had been historically occupied by the inhabitants of India and Sri Lanka, and the rulers of these two countries had historical rights on the 'chanks' found in this waters. The petitioner who had leased the "chank" bed from the Rajah of Ramnad accused the defendant of theft. Initially, the lower District Courts discharged the accused on the ground that "chanks" are basically fish and thus free in nature and could not be subject of theft. However the Madras High Court ruled in favour of the petitioner on the basis that "the exclusive property in these chanks has in fact been held by Government from time immemorial and has been leased out for the benefit of the public revenue and this is in accordance with the common laws of the country which recognizes the power of Government to settlements or grants for purposes of revenues ..... etc."[45] Therefore, according to the Court's decision, Palk Bay and the adjacent part of the Gulf of Manaar were under the jurisdiction of the Rajah of Ramnad and the lease granted by him was in accordance with the domestic law. So if the taking of the

---

[44] Annakumaru Pillai Vs. Muthupayal, Reprinted in The Indian Law Reports, Madras Series, (1904) page 551-576

[45] ibid

chanks from the leased area was dishonest it would be considered as theft.

The Court case surfaced again when India and Sri Lanka tried to establish the maritime boundaries in that region. The two countries finally reached their first agreement on 26th and 28th of June of 1974 on the waters from the Palk Strait to Adam's Bridge.[46] This agreement was the most difficult among the three since it involved the disputed ownership issue of the island of Kachchativu. This island is located in the Palk Strait area and consists of half coral and half sand. The island covers an area of approximately 3.75 square mile. It is an uninhabited island except the St. Anthony's Chapel. The nearest point on the Indian coast from Kachchativu is about 12 nautical miles whereas the closest point on Sri Lankan coast is about 10.5 nautical miles away.[47] India based its arguments by citing the evidence of the above mentioned Court Case. The Government of Sri Lanka also cited similar historical usage.

Finally, the two Parties agreed to sign an agreement to delimit their boundaries in the Palk Strait as far as Adam's Bridge in 1974[48] after India relinquished its claim to the island of Kachchativu. The boundary was drawn on the basis of the equidistance principle. The line is a median line taking account of all the turning points which are equidistant from the basepoints of

---

[46] Limits in the Seas No. 66 "Historic Water Boundary: India-Sri Lanka

[47] M.R. Shyam "Extended Maritime Jurisdiction and its impact on South Asia" 10 Ocean Development and International Law (1981) page 104

[48] Agreement Between Sri Lanka and India on the Boundary in Historic Waters between the two Countries and Related Matters, Done 26/28 June 1974, Date of Entry into Force : 10th July 1974

the respective coasts. However, the line is not a "true equidistant" line since the island of Kachchativu was ignored while drawing the line. In fact, the boundary line is 11 nautical mile from the nearest base point in the Indian coast and one nautical mile from Kachchativu. The boundary line can thus be called a modified equidistant line. The two countries have agreed that each country "shall have sovereignty and exclusive jurisdiction and control over the waters, the islands, the continental shelf and the subsoil thereof, falling on its own side of the aforesaid boundary".[49] However, article 5 of the agreement acknowledges that "Indian fishermen and pilgrims will enjoy access to visit Kachchativu and will not be required by Sri Lanka to obtain visas or any other travel documents".[50] The agreement also provides that "the vessels of Sri Lanka and India will enjoy in each others waters such rights as they have traditionally enjoyed". Thus for all practical purposes, the agreed boundary does not affect the interaction and activities of the two nations with each other in that region.

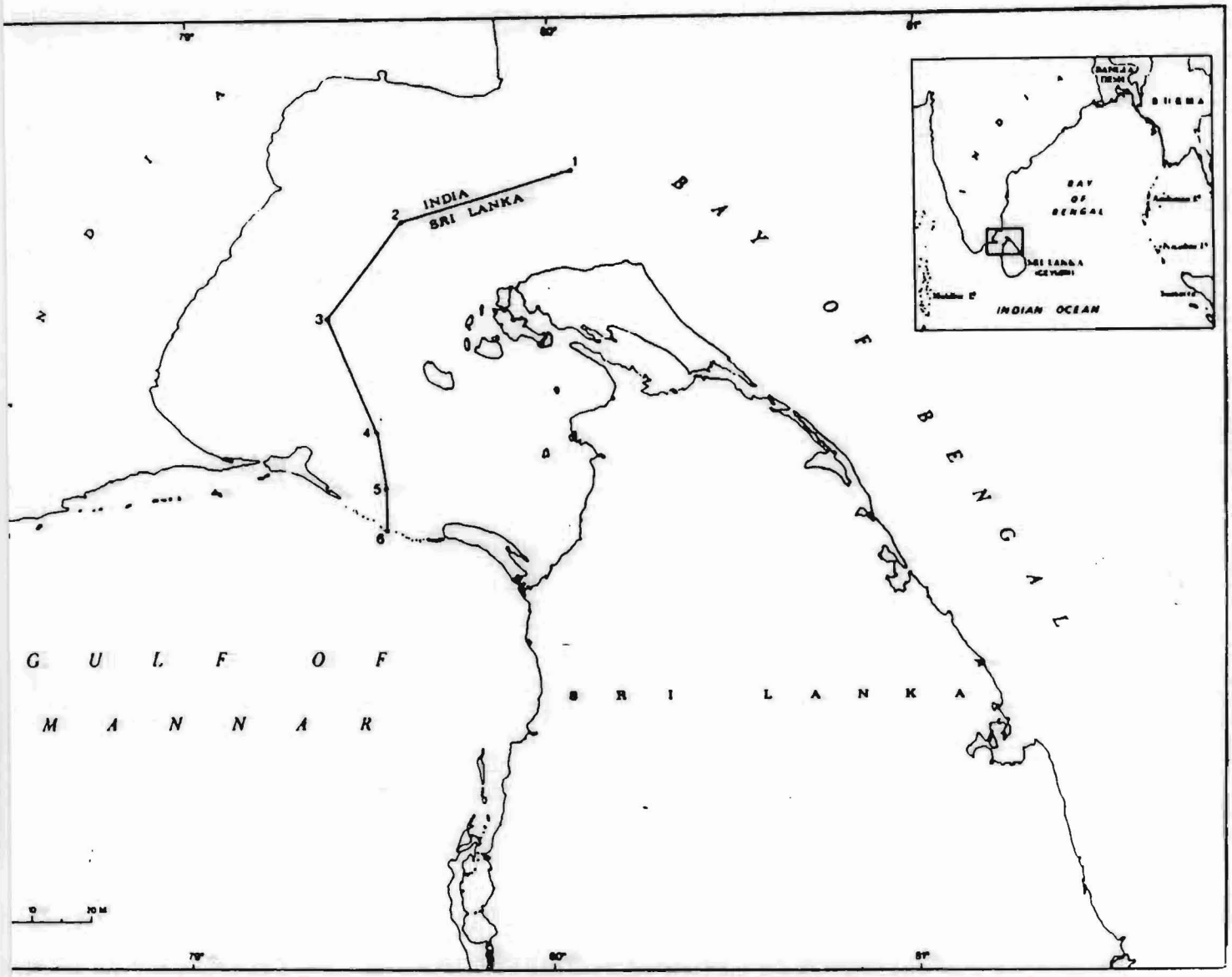
---

[49] ibid at Article 4 Reproduced in United Nations The Law of the Sea : Maritime Boundary Agreements (1970-1984) Office for Ocean Affairs and the Law of the Sea New York, (1987)

[50] ibid reproduced in United Nations The Law of the Sea : Maritime Boundary Agreements (1970-1984) Office for Ocean Affairs and the Law of the Sea New York, (1987) page 225

FIGURE 5

MARITIME BOUNDARY IN HISTORIC WATERS BETWEEN SRI LANKA AND INDIA



SOURCE : Atlas of the Seabed Boundaries, Edited by B. Conforti and G. Francalanci, Milano, Italy, 1979

By two other agreements, the boundary extends in the Gulf of Manaar and in the Bay of Bengal area. In the Bay of Bengal region, both countries agreed on a modified equidistant line.

The boundary in the Gulf of Manaar is approximately 288.33 nautical miles in length[51]. This boundary line, although based on equitable principles is not a strict equidistant line. The two countries agreed upon a selective choice of relevant basepoints; for example, they disregarded basepoints on the small Adam's Bridge Islands. Thus the boundary could be called a modified equidistant line. The boundary travels from relatively shallow waters to water depth of 1000 to 2000 meters. This boundary terminates at the Cape Comorin and provisions were made to extend the boundary southwestwards in agreement with the Maldives in the future.

Both India and Sri Lanka used normal baselines to delimit their respective offshore jurisdictional areas Both countries also simultaneously adopted domestic legislation to claim historic waters, territorial sea, EEZ and the continental shelf[52]. After adopting the Maritime Zones Act, the Government of India specified the limits of India's historic waters in Palk Strait, Palk Bay and the Gulf of Manaar by a notification issued on January 1977. The notification also specified the legal status of these waters and states that,[53]

---

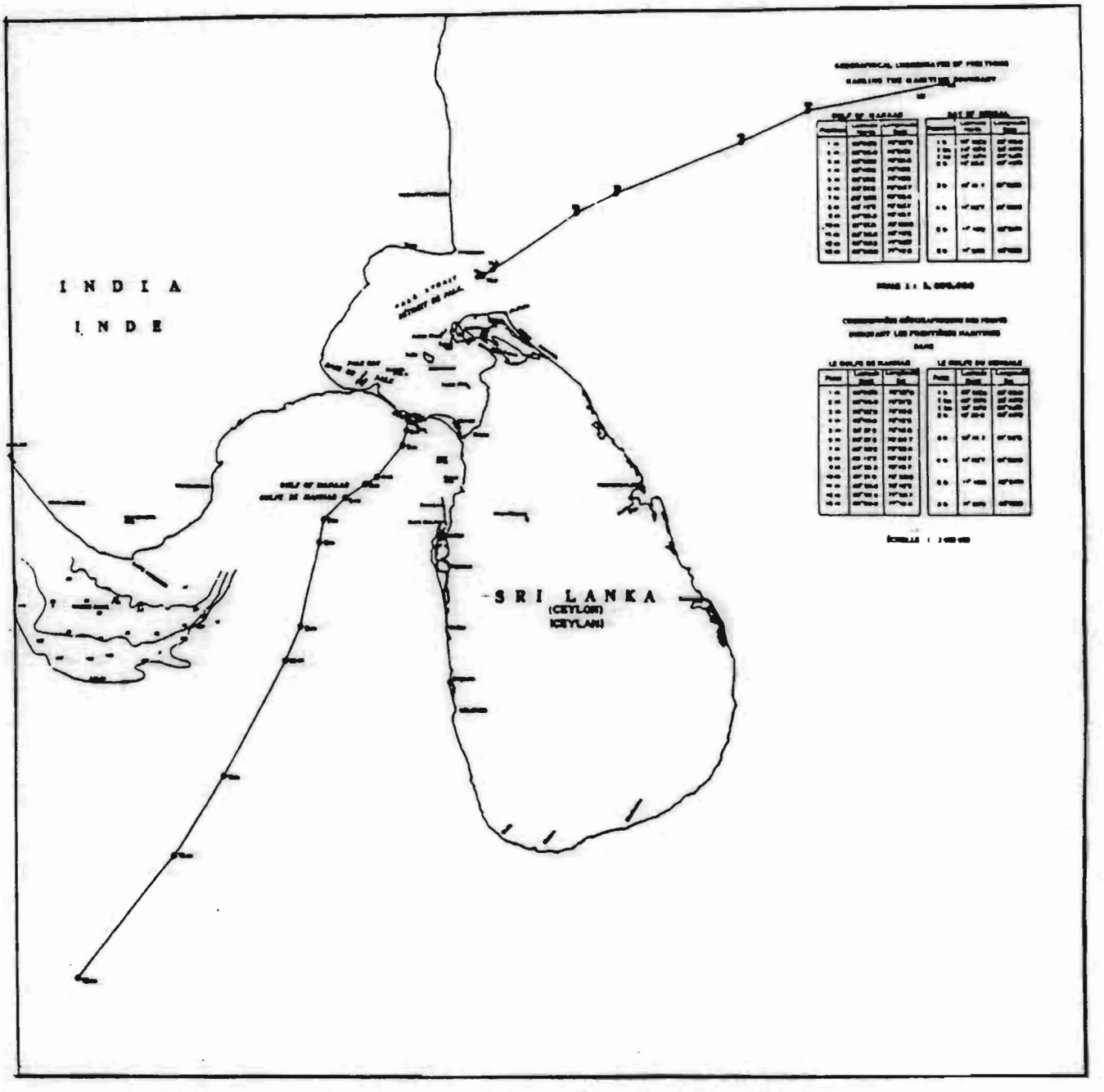
51 Limits in the Seas Series no. 77

52 India - Maritime Zones Act, 1976
Sri Lanka - Maritime Zones Law # 22 of 1976

53 Reproduced in R.W. Smith "Exclusive Economic Zone Claims- An Analysis and Primary Documents (1986)

FIGURE 6

INDIA AND SRI LANKA MARITIME BOUNDARY IN THE GULF OF MANAAR AND BAY OF BENGAL



Reprinted in The Law of the Sea : Maritime Boundary Agreements (1970-1984) Office for Ocean Affairs and the Law of the Sea United Nations, New York 1987

According to the agreement and also in the Indian domestic law, the historic waters of India in the Palk Strait and Palk Bay area are internal waters of India, the appropriate baseline referred to in the section 3(2) of the Maritime Zones Act. In the Gulf of Manaar area, however, the historic waters have the same status as the territorial waters of India.

Simultaneously, the President of Sri Lanka issued a Proclamation to the same effect with respect to his country's historic waters.

India completed its boundary agreements with Sri Lanka by the third agreement which decided the trijunction point of India-Sri Lanka - Maldives boundaries in the Indian Ocean region southwest of the Gulf of Manaar on July 1976[54]. These three countries agreed on their nearest basepoints from which three arcs with equal radius were drawn. The intersection point of these three arcs is agreed to be the trijunction point to delimit the common maritime boundaries of these three countries. Since, the arcs were drawn with the same radius, the trijunction point is equidistant from the nearest points of the three coasts. Therefore, the whole maritime boundary which totals about 214.30 nautical miles, between India and Sri Lanka was negotiated by the year 1976 and can be considered a modified equidistant line.

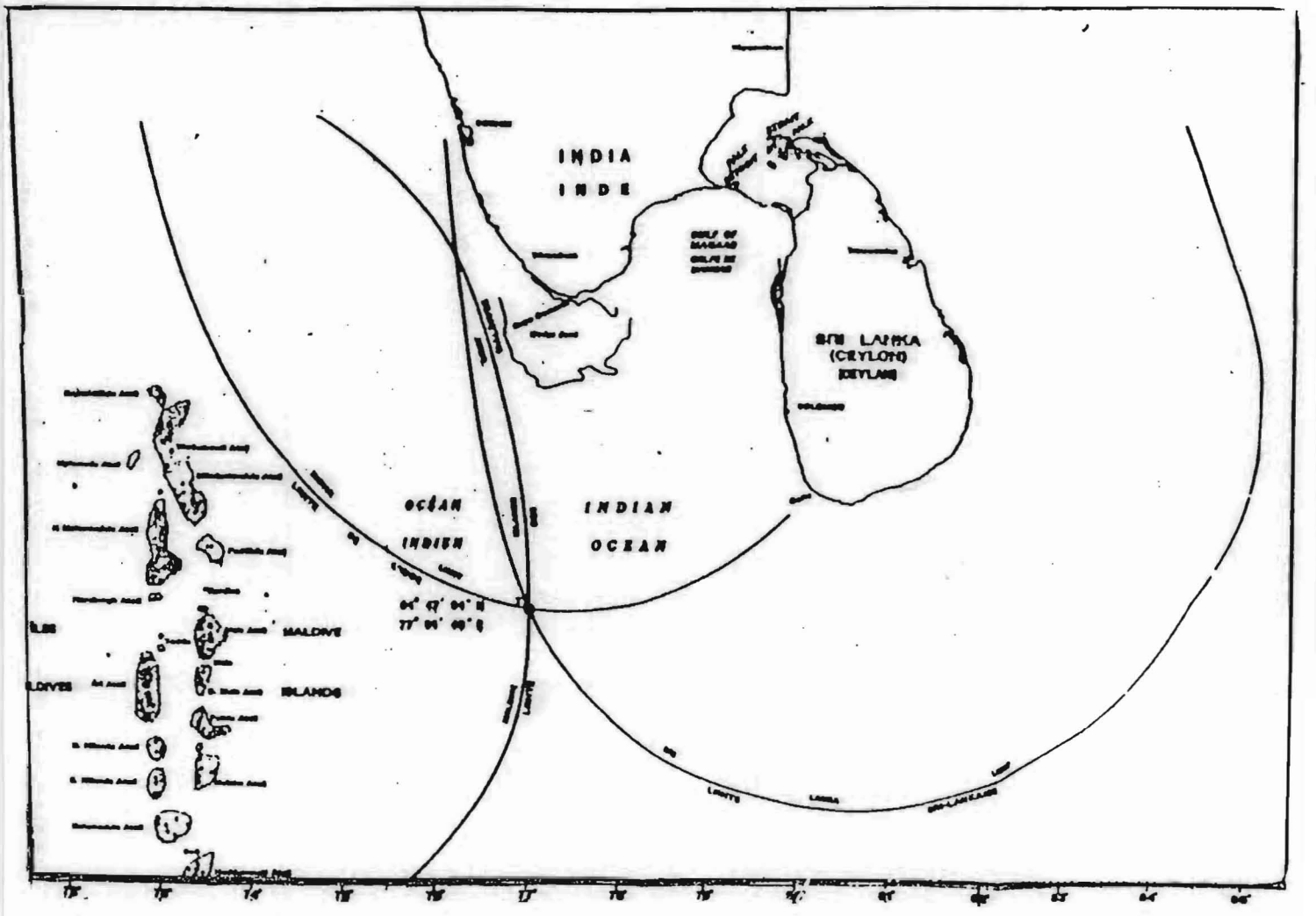
---

[54]Agreements between Sri Lanka, India and Maldives concerning the determination of the trijunction point between the three countries in the Gulf of Manaar (23, 24 and 31 July 1976) ; Date of Entry into Force : 31 July 1976

FIGURE 7

INDIA - SRI LANKA - MALDIVES
THE TRIJUNCTION POINT

Map showing the
200 nautical miles limits of
Sri Lanka, India and Maldive islands
Scale 1:3,900,00



SOURCE: Reprinted in The Law of the Sea : Maritime Boundary Agreements (1970-1984) Office for Ocean Affairs and the Law of the Sea United Nations, New York 1987

India started negotiating with its other neighbor, Maldives, soon after it settled its boundaries with Sri Lanka.

ii) INDIA-MALDIVES

Maldives is situated southwest of the southern tip of the Indian mainland. The Maldives' claim to its offshore jurisdiction raised a number of controversies in the international area. The Maldives Constitution defines the Republic as "the territory of the Republic of Maldives is the islands situated between latitudes 07.091/2 degrees North and 0.451/4 South and longitudes 72.301/2 East and 73.48 degrees East and the sea and air surrounding in between the islands. This "Constitutional Rectangle" is apparently used to develop the Maldives' fisheries zone and the "economic zone'[55]. It is not clear whether this rectangle is considered by the Maldivian Government as the national baseline. However, as the lines are located from a range of 2.75 to more than 55 nautical miles from the coastline[56], the rectangle would be contrary to International law[57]. The Constitution is also noted that, instead of creating a 200 nautical mile zone by simply measuring it from the southern points of the rectangle, the 'economic zone' is extended where the southern parallel intersects the eastern and western parallel. Thus the outer limit of the 'economic zone' extends sometimes as much as 310 and 308 nautical miles from the

---

[55]Maldives - law 30/76 and Law 32/76 reproduced in Smith

[56] Limits in the Seas # 78

[57] Both Articles on the Straight baseline and on the archipelagic baselines of UNCLOS III, do not support such liberal drawing of baselines

constitutional rectangle. The northeast portion of the Maldives territory was undecided until a boundary agreement was reached with India.

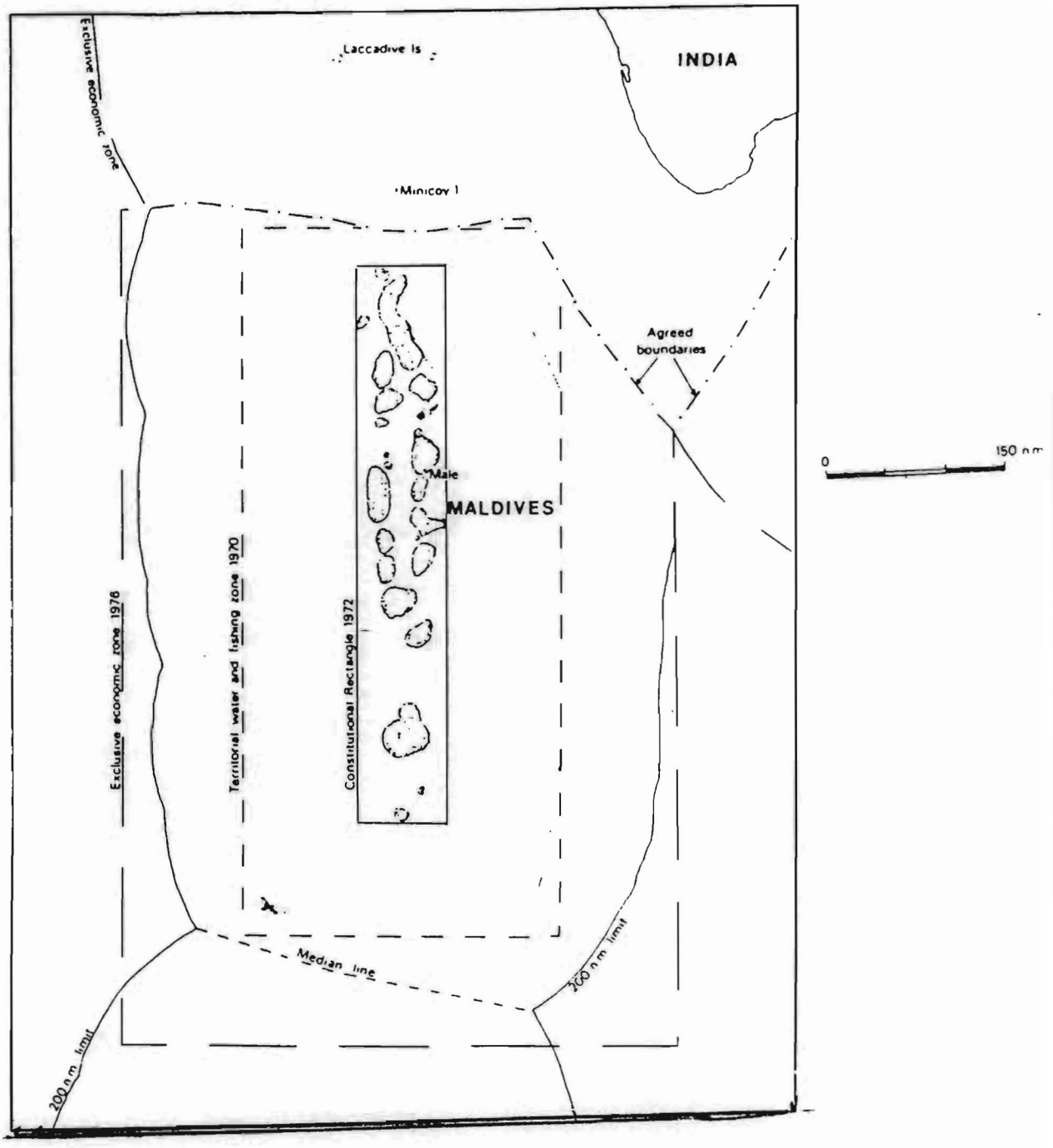
On December 1976, India and Maldives signed a treaty to establish their maritime boundaries in the Arabian Sea[58]. The process started at the negotiated trijunction point in the Gulf of Manaar and traversed northwesterly for approximately 223 nautical miles in the Arabian Sea. This segment of the boundary is generally equidistant from the southwest coast of India (Cape Comorin/Kanya Kumari to) and from the northwest Maldives atolls (Male Atoll to Tiladummati Atoll). However, the boundary then turns towards west and runs for approximately 272.76 nautical miles. In this portion of the boundary, Minicoy island is the closest Indian territory, however, the Laccadive Islands of Suheli Par is the closest Indian territory to the boundary terminus. Tiladummati and Ihavandiffulu are the closest Maldivs' territories. The boundary is terminated at a point which is 197 nautical miles from the nearest Maldives' territory Ihavandiffulu Atoll and 203 nautical miles from the Laccadive Islands in the Indian territory. The boundary as a whole, is delimited on the basis of equitable principle and closely follows an equidistant line.

---

58 Agreements between India and Maldives on the Maritime Boundary in the Arabian Sea and Related matters, Dec 1976

FIGURE 8

THE MALDIVES' MARITIME CLAIMS AND INDIA-MALDIVES BOUNDARY



SOURCE : The Maritime Political Boundaries of the World by J.R.V. Prescott, Methuen New York 1985

iii) INDIA-INDONESIA

Indonesia claimed archipelagic status and adopted archipelagic baselines that were later accepted in the Third United Nations Law of the Sea Conference. Thus the Indonesian territorial sea, EEZ and continental shelf are all measured from the archipelagic baselines. The two countries' claims on the continental shelf overlap in the Andaman Sea and the Bay of Bengal.

India settled its continental shelf boundary with Indonesia in the Bay of Bengal region by two separate agreements. The first agreement was reached on August 1974 for the delineation of the area between Great Nicobar in India and Sumatra in Indonesia.[59] The boundary measures approximately 47.9 nautical miles.[60] The line can be classified as a modified equidistant line since the entire line is not a strict equidistant line from each and every point of the two opposite coasts. However, equidistant occurred at all four turning points as well as the line between the last two turning points, i.e, the line between Northwest Island of Indonesia and Pygmalion (Parson) Point of India. In this boundary agreement, the farthest point lies approximately 50 nautical miles from the Northwest Island in Indonesia and Pygmalion ((Parson) point in India. Therefore,

---

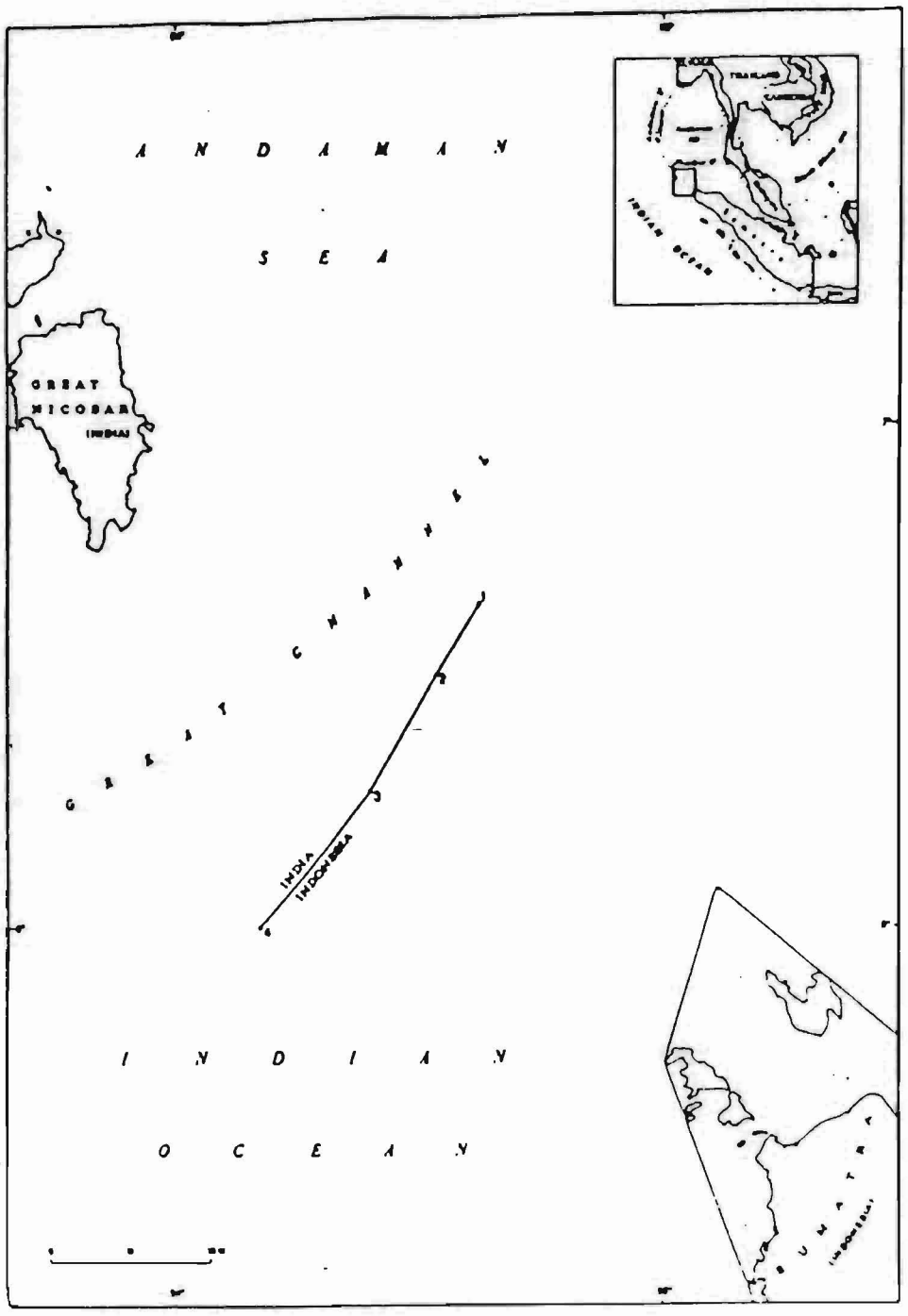
59 Agreement between the Government of the Republic of India and The Government of the Republic of Indonesia relating to the delimitation of the continental shelf boundary between the two countries: Done 8th August 1974; Date of Entry into Force : 17 December 1974

60 Limits in The Seas Series No. 62

the boundary took care of the area where the two opposite coasts are as far as 100 nautical miles from each other.

FIGURE 9

CONTINENTAL SHELF BOUNDARY BETWEEN INDIA AND INDONESIA



SOURCE : Atlas of the Seabed Boundaries Edited by B. Conforti and G. Francalanci, Milano, Italy, 1979

However, India enacted domestic legislation in 1976 claiming up to 200 nautical miles of continental shelf as being under its national jurisdiction. Indonesia adopted its own domestic legislation and claimed a 200 miles exclusive economic zone as being under its national jurisdiction as well. In the international arena, state practices along with the draft articles of the Third United Nations Law of the Sea Conference started to recognize the 200 nautical mile limit of the continental shelf under national jurisdiction unless the shelf extends further seaward. This subsequently lead India and Indonesia to sign a treaty to delimit their newly acquired extended national jurisdictions[61]. This boundary extended the previously determined line southwestwards into the Indian Ocean up to a distance of 183 nautical miles from the respective coasts of India and Indonesia.[62] The boundary line traverses northeastwards into the Andaman Sea up to a point close to the possible common maritime boundary point between India, Indonesia and Thailand. The new boundary line travels for a distance of 86.7 miles whereas the entire boundary between India and Indonesia measures approximately 158.9 nautical miles. The entire continental shelf boundary between India and Indonesia is based on equitable principles and the boundary line closely approximates an equidistant line. However, it is a simplified or modified equidistant line as the analysis of the basepoints

---

61 Agreement between the Government of the Republic of India and The Government of the Republic of Indonesia on the extension of the 1974 continental shelf boundary between the two countries in the Andaman Sea and the Indian Ocean: Done 14 January 1977; Date of Entry into Force 15 August 1977

62 Limits in the Seas Series No. 93

appears to give all the islands and rocks full effects and equal weights but discards some of the turning points to make the line simplified. The agreement provides that both countries recognize and acknowledge the sovereign rights of each other in and over the seabed area, including the subsoil thereof within the limits established by the agreement.[63]

Following this agreement, India, Indonesia and Thailand signed a boundary treaty to determine the common trijunction point in the Andaman Sea and also determine their related boundaries in that region.[64] This point is equidistant from the northeast coast of Great Nicobar Island in India (approximately 103.99 nautical miles) and Pulau Rondo in Indonesia (approximately 104.1 nautical miles)[65]. However, the point is 132.5 nautical mile from Ko Huyong which is the southernmost island of Mu Ko Similan of Thailand. Therefore the trijunction point is not an equidistant point as it is 31.5 nautical mile closer to the Thai coast. However, this point is an agreed point of intersection between the three countries.

---

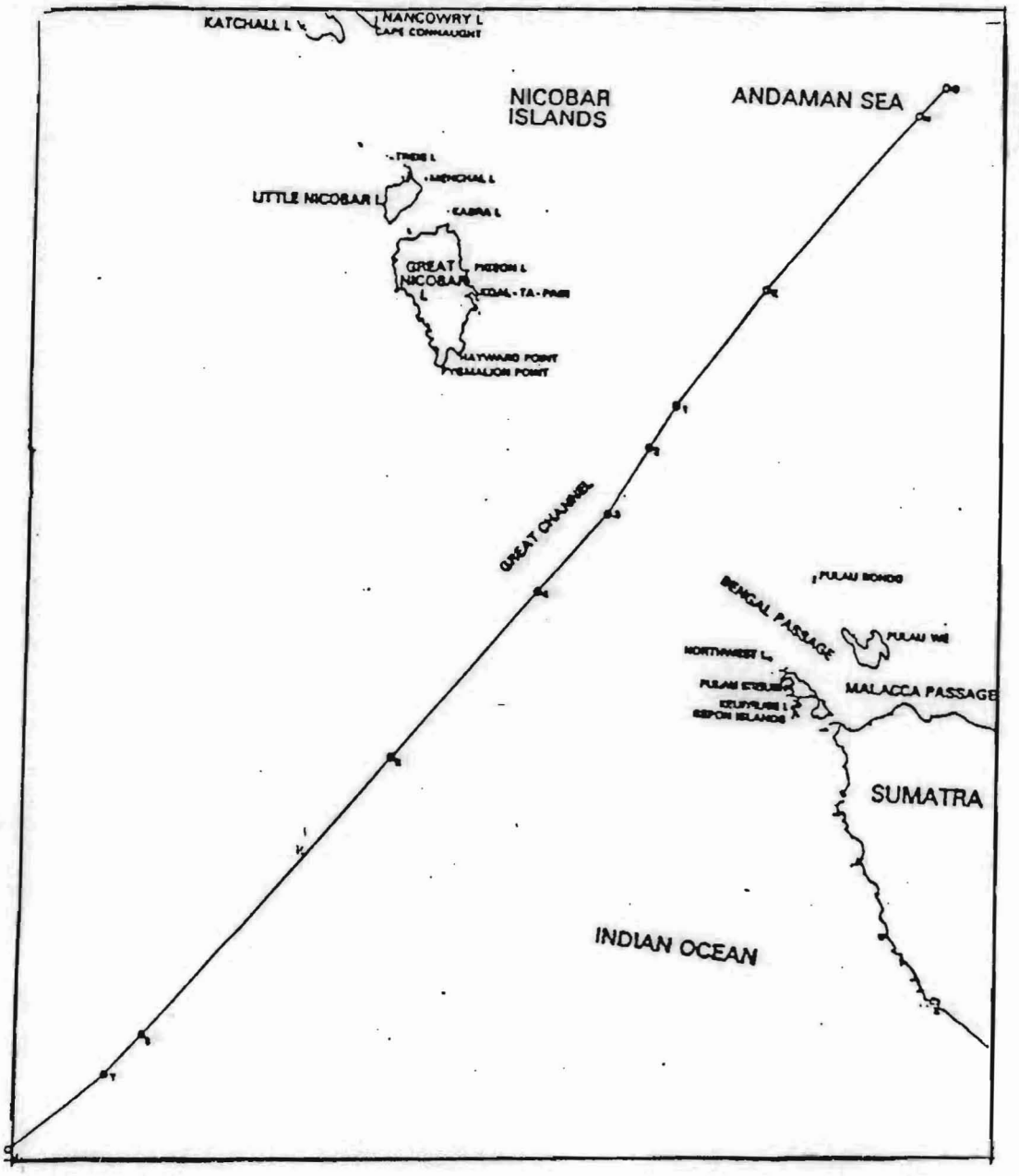
[63] supra note 30 at article 5

[64] Agreement between the Government of the Kingdom of Thailand, the Government of the Republic of India and The Government of the Republic of Indonesia concerning the determination of the trijunction point and the delimitation of the related boundaries of the three countries in the Andaman Sea : Done 22 June 1978; Date of Entry into Force: 2 March 1979

[65] supra note 32

FIGURE 10

EXTENSION OF THE PREVIOUS (1974) CONTINENTAL SHELF BOUNDARY BETWEEN INDIA AND INDONESIA



SOURCE: Reprinted in The Law of the Sea : Maritime Boundary Agreements (1970-1984) Office for Ocean Affairs and the Law of the Sea United Nations, New York 1987

iv) INDIA-THAILAND

In 1970, Thailand enacted domestic legislation to claim straight baselines.[66] In doing so, there was no apparent deviation from the provisions provided by UNCLOS III for drawing straight baselines. At the time of the agreement on the trijunction point, India, Indonesia and Thailand also entered into bilateral agreements with each other to delimit their respective seabed boundaries in the Andaman Sea.[67] The boundary begins at the tri-junction point with Indonesia and continues for a distance of approximately 94.2 nautical miles. The starting point as noted before is 103.9 nautical miles from the nearest basepoint of India and 132.5 nautical miles from Ko Huyong off the Thai coast. The boundary first travels in a northwesterly direction and then follows a northward path. At some turning points the boundary is closer to Indian territory whereas at others, it is closer to the Thai coast. Again, between some of the turning points the line is almost equidistant from the respective basepoints. Therefore, the boundary can be said to be a negotiated line agreed by the two Parties involved. In fact, less than one half of the boundary is an equidistant line. The remainder of the boundary diverges from the equidistant line; in some places, it is as much as 20 nautical miles closer to one Party than to the other.[68]

---

[66] Limits in the Seas # 31

[67] Agreement between the Government of the Kingdom of Thailand and the Government of the Republic of India on the delimitation of the seabed boundary between the two countries in the Andaman Sea; Done 22 June 1978; Date of Entry into Force: 15 December 1978

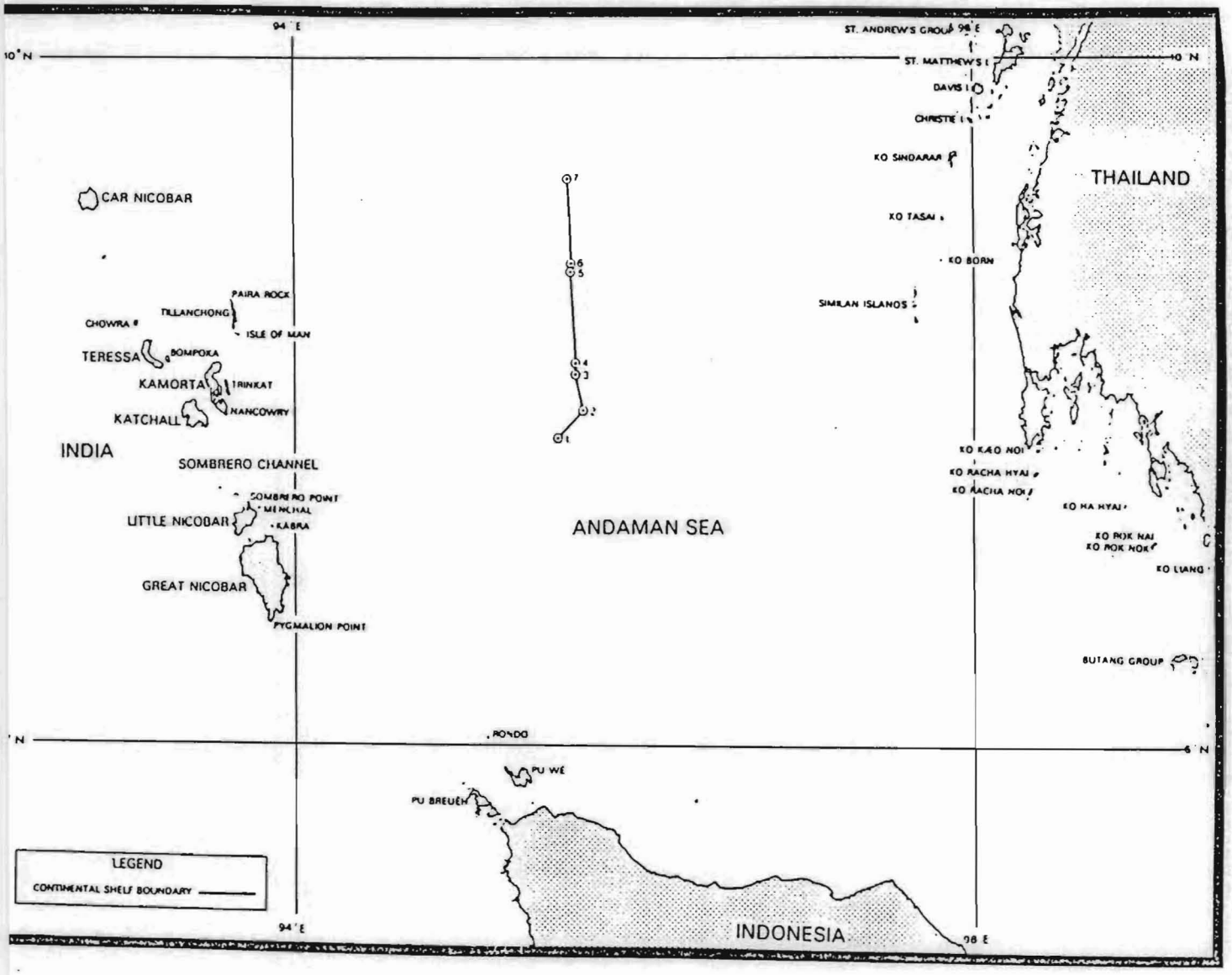
[68] ICJ Vol.4 "Analytical Annexes to the Counter Memorial Case Concerning delimitation of the Maritime Boundary in the Gulf of maine Area (Canada/United States) 28th June 1983 Annex 8 page 4

The agreement states that the Parties have agreed to recognize and acknowledge the sovereign rights of each other over its seabed, including the subsoil thereof, within the limits established by the agreement.[69] The agreement also provides that the extension of the boundary will be subsequently carried out in future association with Burma.

69 ibid article 3

FIGURE 11

CONTINENTAL SHELF BOUNDARY BETWEEN INDIA AND THAILAND



SOURCE : ICJ "Canadian Memorial - Annex to the Reply" (1983) page 514

v) INDIA-BURMA

As provided in the India-Thailand agreement, India started negotiating with Burma, to establish maritime boundaries between the two countries in the Andaman Sea. However, in November 1968 (amended April 1977) Burma enacted national legislation to adopt straight baselines. The Burmese baselines have several deviations from acceptable international rules and regulations. The following are some major questions from both the legal and historical point of view. They are - 1) The Irrawaddi River delta is included in the baseline regime, 2) none of the base points is situated on the mainland, 3) a few lines do not follow the general direction of the coast, 4) the ratio of water to land enclosed within the baselines is estimated to exceed 50:1, and 5) the longest segment is 222.23 nautical miles.[70]

However, on 23rd December 1986, India reached agreement with Burma to delimit the boundary in the Coco Channel, the Andaman Sea and the Bay of Bengal[71]. In this agreement, all islands, and rocks are given full effect and each party acknowledges the sovereignty, sovereign rights and jurisdictions in its respective maritime zones in accordance with the relevant provisions of the Third United Nations Convention on the Law of the Sea.

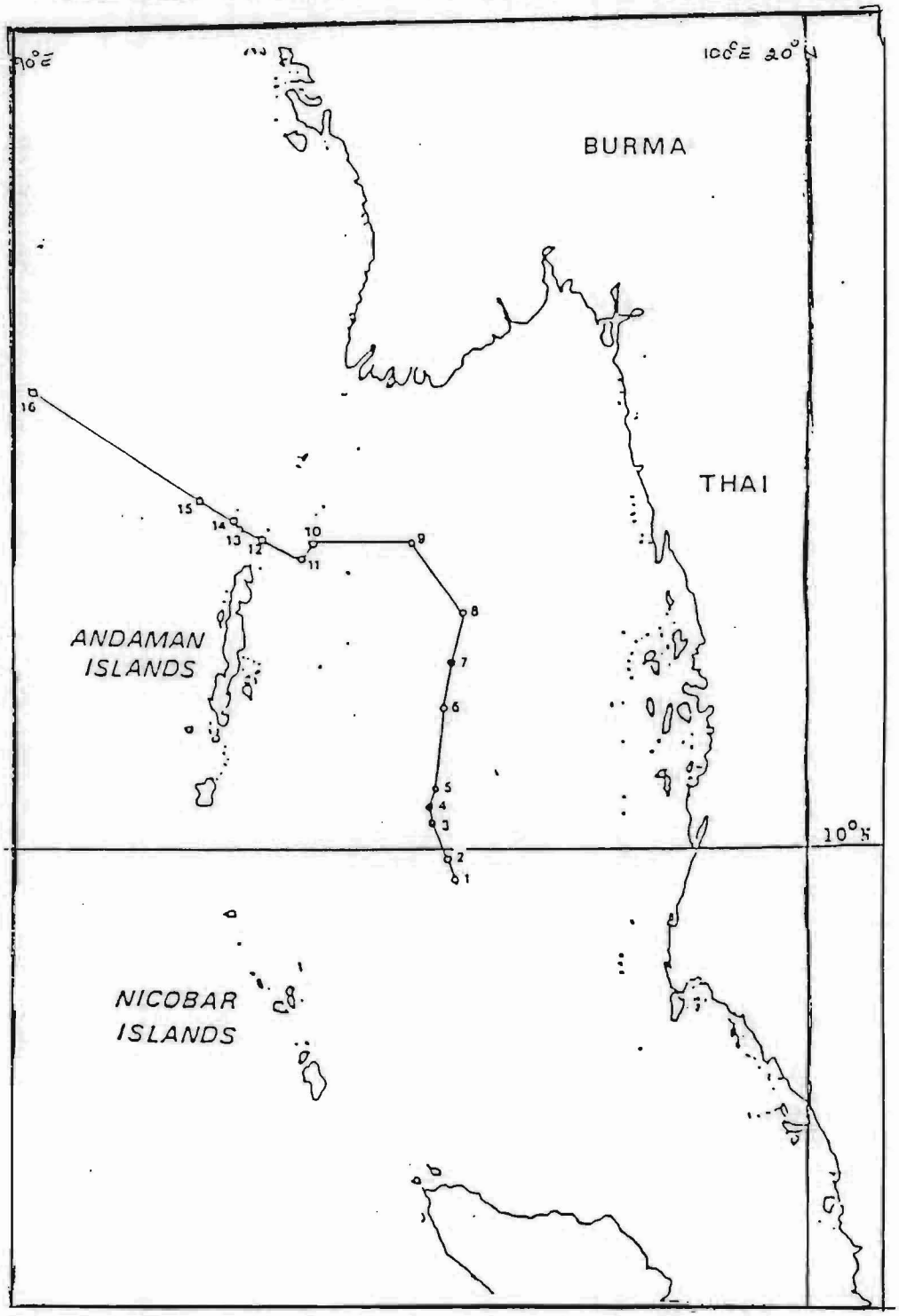
---

[70] Limits in the Sea Series No. 14

[71] Agreement between the Socialist Republic of the Union of Burma and the Republic of India on the delimitation of the Maritime Boundary in the Andaman Sea, in the Coco Channel and in the Bay of Bengal; Done 23 December 1986

FIGURE 12

MARITIME BOUNDARY BETWEEN INDIA AND BURMA



SOURCE: J.R.V. Prescott, "Maritime Jurisdiction in southeast Asia: A Commentary and Map" Honolulu, HI, East-West Center (1981)

The next section deals with the not-yet concluded maritime agreements with Pakistan and Bangladesh.

VI. OTHER BOUNDARY SITUATIONS

i) INDIA-BANGLADESH

These two countries have adjacent coastlines in the Bay of Bengal. The bottom topography of the Bay of Bengal varies widely throughout its 879,375 square miles of area.[72] The disputed zone in the Bengal Basin covers an area of 4,500 square nautical miles.[73] The dispute surfaced when Petro-Bangla signed a contract with six oil companies for conducting seismic surveys and exploratory drilling in 1974.[74] According to the Government of India, the area in question falls within the Indian exclusive economic zone assuming an equidistant line is used to delineate the boundary. Since India has settled its other maritime boundaries with its neighbors following the equidistant principle, India claimed that in the absence of any agreement to the contrary the equidistant line should be used as the boundary line. However, the unstable deltaic

---

72 H. B. Rahman "Delimitation of Maritime Boundaries : A Survey of Problems in the Bangladesh Case" 24 Asian Survey July-Dec 1984 page 1315

73 supra note 22 at page 1309

74 ibid see also supra note 46 at page 1309

coast of Bangladesh, along with its disadvantageous concave configuration, mud flats and "swath of no ground" near the Kunga and Malancha Rivers, led the Government to claim that the boundary line should recognize the 'special' and 'unusual' geomorphological character of the Bangladesh coast.

Bangladesh enacted domestic legislation to establish straight baselines which follow a ten-fathom isobath and declared its 12 nautical mile territorial sea and 200 nautical mile EEZ should be measured from the straight baselines[75]. However the ten-fathom line is not recognized in the international law[76]. The commentators agree that even if the coast of the Gangetic delta is considered to be highly unstable, there is no justification for using the ten-fathom line as the baseline.[77] The ten-fathom line in some places is as much as 50 miles from the nearest coastline and not a single point on these baselines is located on land. Therefore, the use of the baseline encloses a substantial amount of shelf area within Bangladesh's internal water. The use of this ten-fathom line also converted 6200 square nautical miles of potential EEZ into territorial and internal waters.[78]

---

75 Territorial Waters and Maritime Zones Act of 1974 provided the legislative framework where as a Declaration of the Ministry of Foreign Affairs (1974) provided the geographical coordinates of the basepoints. Reprinted in R.W. Smith "Exclusive Economic Zone Claims: An Analysis and Primary Documents. (1986)

76 Article 4 and 7 respectively in 1958 and 1982 Convention deal with the straight baseline issue. Although paragraph 2 of the article 7 of UNCLOS III acknowledges that the unstable;e delatic coasts can make use of straight baseline, the ten fathom line is not mentioned here.

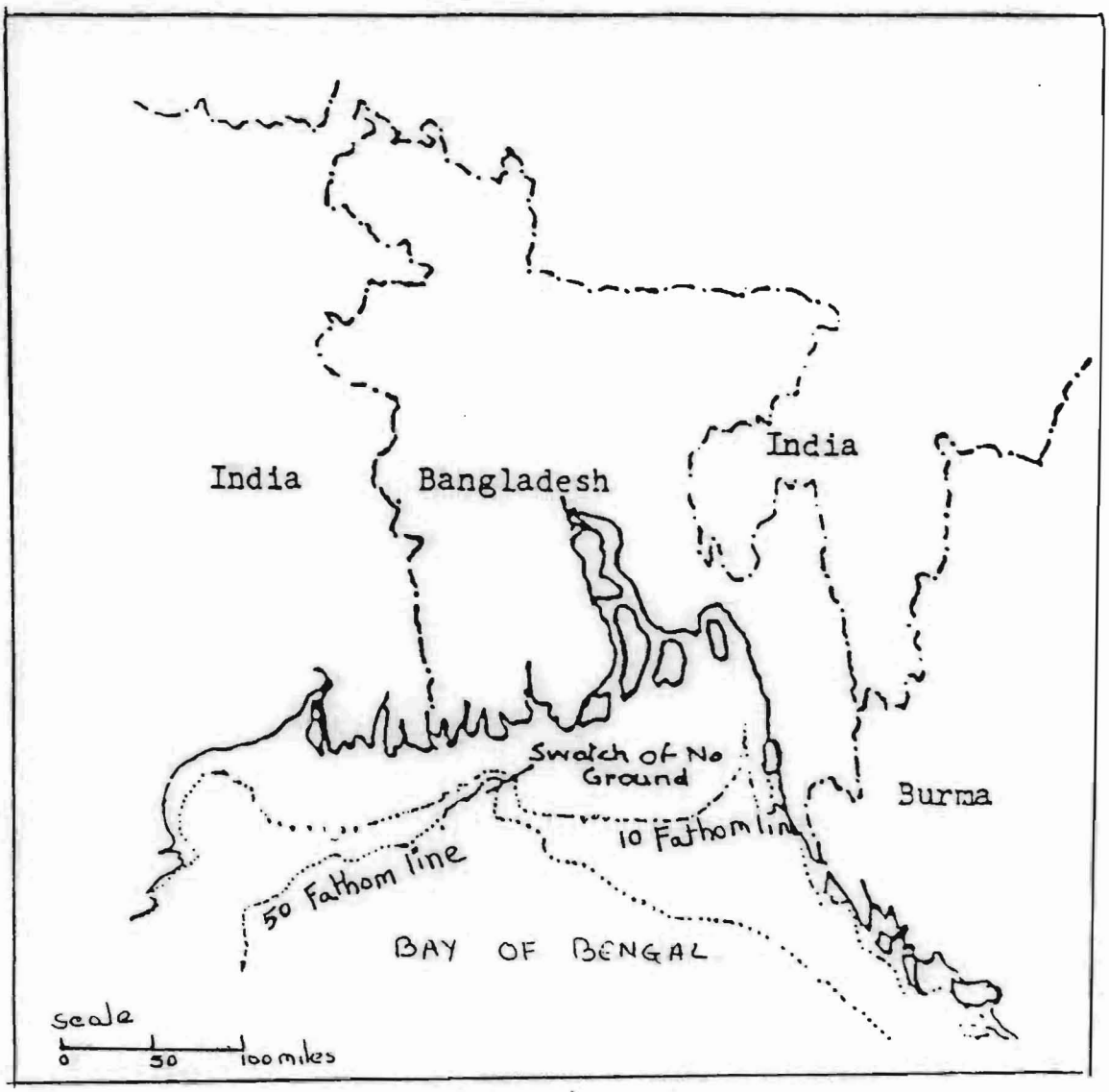
77 J.R.V. Prescott "The Maritime Political Boundaries of the World" 1985 page166, also Beazley page 14.

78 ibid Prescott at page 166

Beside the baseline conflicts, the disputed ownership claim of an island called New Moore/Purbasha in India and South Talapatty in Bangladesh made the situation more complex. The island is located in the estuary of Haribhanga River. The boundary in this area is the mainstream of the main channel (thalweg) of the Haribhanga River. However, the emergence of this new island from sediments brought down by the rivers started claims and counterclaims over the ownership of this approximately 2 square mile area. The Government of India decided to survey the area before going to any agreement. As of today the area remains disputed.

FIGURE 13

INDIA-BANGLADESH OFFSHORE BOUNDARY REGION IN BAY OF BENGAL



SOURCE : "Extended Maritime Jurisdiction and Its Impact on South Asia" by Manjula Shyam 10:1/2 Ocean Development and International Law Journal (1981)

ii) INDIA-PAKISTAN

On its other side of the country, India still has to settle its land as well as maritime boundary problems with Pakistan. India shares an adjacent coastline with Pakistan on the Arabian Sea. The Pakistan Territorial Waters and Maritime Zones Act, 1976 provided some guidelines for delimitation of its offshore areas. Section 8 of the Act states that:[79]

a) the delimitation of the territorial waters between Pakistan and any other state whose coast is opposite or adjacent to that of Pakistan shall be determined by agreement between Pakistan and such state and pending such agreement and unless any other provisional agreements are agreed between them, the boundary with regard to the territorial waters between Pakistan and such State *shall not extend beyond the line every point of which is equidistant* from the baseline from which the breadth of the territorial waters of Pakistan and such state is measured. (emphasis added)

b) the delimitation of the contiguous zone, the continental shelf, the exclusive economic zone and other maritime zones between Pakistan and any other state whose coast is opposite or adjacent to that of Pakistan shall be effected by agreement *in accordance with equitable principles and taking account of all the relevant circumstances*, and pending such agreement or a settlement Pakistan and such state shall make provisional arrangements taking into account the said principles for the delimitation of the contiguous zone, the continental shelf, the exclusive economic zone and other maritime zones.(emphasis added)

No formal agreement has been reached yet, however both countries have almost similar domestic legislations whose

---

79 Reproduced in The Law of the Sea, Current Development in the State Practice, No II, Office for Ocean Affairs and the Law of the Sea, Unoted Nations, New York 1989

provisions are in conformity with one another and with the international law. It is possible that both the countries would agree to use the equidistance method to delimit their maritime boundaries in the Indus river basin and the Arabian Sea.[80]

---

[80] supra note 36 at page 104

VII. CONCLUSIONS

International law relating to maritime boundary delimitation has evolved from an equidistant line to equitable principles which would produce an equitable solution. That is, the law has moved from the method-oriented point of view to the result-oriented one. However, the concept of equity is very abstract and subjective. In the Libya-Tunisia Continental shelf case, Judge Tanaka admits that,

"an appeal to higher ideas of law such as justice, equity or equidistance and reasonableness, which are self evident but which owing to their general and abstract character, are unable to furnish any concrete criteria for delimitation".

Various methods and combinations of methods of delimitation are recognized as legitimate to be employed in order to achieve an equitable solution. India clearly follow the equidistant/modified equidistant line to delimit its maritime boundaries. Indian domestic legislation, the Maritime Zones Act of 1976, recommended the use of equidistance as the method of delimitation. An equidistant line has some advantages to be applied. One of them is its "neutrality". The use of the same charts, baseline data and cartographic techniques would result in a single line on a chart, thus reducing the potental for disputes over the boundary line. Secondly, the use of an equidistant line potentially can divide an offshore area in two equal parts. Therefore, the solution of the use of an equidistant line

merits to be more equal than any other methods, in the absence of any distributive justice.[81]

All Indian maritime boundaries have used equidistant points to determine the turning points of the boundary lines, although the line itself may not be equidistant at every point of time. Only in two cases, boundary lines that are not based on the equidistance method, have been negotiated. One of them is the India-Sri Lanka boundary in the historic waters of Palk Strait and the Gulf of Manaar. However, this is in accordance with international law as it clearly recognizes the special circumstances/historical rights of a country. India and Sri Lanka also successfully negotiated on the ownership right of the disputed island of Kachchativu. The other agreed boundary line which is not an equidistant line is the line between India and Thailand in the Andaman Sea. It is said to be modified because of a navigational issue.

India also successfully negotiated two trijunction points (one with Sri Lanka- Maldives in the Indian Ocean and the other with Thailand and Indonesia in the Andaman Sea). The third trijunction point (India-Thailand-Burma) although not settled yet does not have any disputed issue.

All the agreements on the maritime boundaries contain a clause requiring cooperative handling and exploitation of resources. Thus India acknowledges the importance of regional cooperation in the effective management, utilization and conservation of resources

---

81 for more discussion on the issue, see Alexander "Equidistance and Maritime Boundary" paper presented at the Conference of the International Boundary Research Unit (1989) England

that are vital to both India and its neighbors since all these countries are developing nations. All the agreements are short and precise leaving little room for controversy or ambiguity. It should also be noted that all the boundary agreements have been ratified by both India and its neighbors.

In the two, as yet unnegotiated boundary situations, India would prefer an equidistant line to delimit the zones. The results of the Court cases and Arbitral awards show that distributive justice should not be allowed to influence the decision. Also, in these two cases, as both the countries share adjacent coasts with India, natural prolongation would not be an important factor to be considered either. However, the establishment of a maritime boundary not only has political implications but also reflects the economic, scientific and cultural factors and incentives as well as the ocean policy of the government. It can also be seen that the resource potential lends an urgency to the delimitation of maritime boundaries. Perhaps this is one of the reasons for the delay in delimitation of the boundary in the Indus basin between India and Pakistan where the sea bed is not regraded as promising for hydro-carbon. For the same reason, it is important to reach an agreement with Bangladesh in the Bay of Bengal region.

India has not discussed the transit and residual exploitation rights for Nepal and Bhutan at any formal level. However, the river waterways, through the Ganges and Brahmaputra could be used in future for transit passages for these land-locked countries.

With an extensive EEZ which is equivalent to about 66% of its mainland territory, India has undertaken intensive research

programs to evaluate the hydrocarbon as well as the fisheries resources in its EEZ. The boundary agreements led to cooperation among the nations on the issue of fisheries management, pollution problems, and may extend to the collection, compilation, interpretation and exchange of statistical information. The Indian maritime zone depicts a promising picture as study reveals that the EEZ has a potential oil reserve of 1 billion tons and natural gas reserve of around 271 bcm.[82] As for the fisheries resources, the deep sea fishing of tuna, sardines, and mackerel show a strong potential although the coastal waters up to 50 nautical miles are overfished. India is also a pioneer in the deep sea bed mining of polymetalic nodules. The recognition of the multiple uses of the sea with possible conflicts led the Indian Government to establish a Department of Ocean Development in 1981 to handle the overall work relating to the ocean in the fields of planning and coordination of oceanographic surveys, research and development, development of manpower and technology etc. This study has not evaluated Indian maritime policy in the context of naval involvement which plays an important role in terms of Indian foreign as well as domestic marine policy. Finally, developing the newly acquired maritime areas can be an expensive business since India still has all the limitations of a developing country. However, the delimitation of the maritime boundary with the neighbors is a politically as well as economically important step towards the better management of the maritime zone under India's national jurisdiction.

---

[82] Sinha P.C. "India's Ocean Policy-South Asian and Global Perspectives" 1 Oceans89 page 164-169

BIBLIOGRAPHY

Adede A.O. "Toward the Formulation of the Rule of Delimitation of Sea Boundaries between States with adjacent or Opposite Coasts" 19:2 Virginia Journal of International Law and Policy (1979) page 207-255

Alagaraja K.A. "A Brief Appraisal of Marine Fisheries in India" (1987) National Symposium on Research and Development in Marine Fisheries, Cochin, India

Alagaraja, Kurup, Srinath and Balkrishnan "Analysis of Marine Fish Landings in India" (1982) CMFRI, India,

Alexander L. M. "Equidistance and Maritime Boundaries" Paper Presented at the Conference of the International Boundary Research Unit (1989) England

Alexander L.M. "Baseline Delimitations and Maritime Boundaries" 23:4 Virginia Journal of International Law (1983) page 503-536

Beazley P. "Maritime Limits and Baselines - Guide to Their Delimitations" (1987) The Hydrographic Society Special Publication No. 2 page 14

Boggs S.W. "International Boundaries - A Study of Boundary Functions and Problems" (1966) AMS Press Inc., New York

Boggs S.W. "Problems of the Water Boundary definition, Median Line and International Boundaries through Territorial Waters" 27 Geographical Review (1937) page 445-456

Boggs S.W. "The Delimitation of the Territorial Sea - The Method of Delimitation Proposed by the Delegates of the United States at the

Hague Conference for the Codification of the International Law" 24 American Journal of International Law (1930) page 541-555

Chandrashekhara Rao "The New Law of the Maritime Zone - with Special Reference to India's Maritime Zones" (1983) New Delhi, India

Charney J.I. "Ocean Boundaries Between Nations : A Theory for Progress" 78 American Journal of International Law (1984) page 583-606

Conforti B., Francalance G. et al. (ed) "Atlas of the Seabed Boundaries" (1987) Milano, Italy

Development of Small Scale Fisheries in Southwest Asia, Working Paper No. 8, 10 and 15, (1977) Colombo

Feldman M.B. "Tunisia-Libya Continental shelf Case : Geographic Justice or Judicial Compromise?" 77 American Journal of International Law (1983) page 219-238

Government of India "The Gazette of India." Part II Section 3, (3rd December 1956)

Government of India " The Gazette of India, # 81 (March 22, 1956)

I.C.J. Vol.4 "Analytical Annexes to the Counter Memorial Case Concerning delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada/United States) (28th June 1983) Annex 8

Indian Law Reports, Madras Series, Annakumaru Pillai Vs. Muthupayal, (1904) page 551-576

Jagota S.P. "Maritime Boundary" (1985) Martinus Nijhoff Publishers, The Netherlands

James P.S.B.R. "Management of Marine Fisheries of India" The First Indian Fisheries Forum. Proceedings (1988) Asian Fisheries Society, Indian Branch, Managalore, India

Kapoor D.C. and Kerr A.J. "A Guide to Maritime Boundary Delimitation" (1986) Toronto, Canada

Karunakaran C., Ray K.K. and Saha S.S. "A Revision of the Stratigraphy of Andaman and Nicobar Islands, India" (1967) in Proceedings of the Symposium on Indian Ocean. New Delhi National Institute of Sciences of India

Kennet James "Marine Geology" (1982) Prentice Hall Inc., New Jersey

Mani V.S. "India's Maritime Zones and International Law" 12:3 Journal of Indian Law Institute (1973) page 364-369

Marine Products Export Development Authority (MPEDA), India "Indian Fishery Handbook" (1988)

Misra K.P. "Territorial Sea and India" 6 Indian Journal of International Law (1966) page 465-482

Narain H., Kaila, K.L. and Verma R.K. "Continental Margins of India" 5 Canadian Journal of Earth Science (1968) page 1051-1065

Pepper J. F. and Everhart G.M. "The Indian Ocean : The Geology of Its Bordering Lands and the Configuration of Its Floor" (1963) U.S. Geological Survey. Misc. Geological Inv. Map 380 (with reports) page 1-33

Prescott J.R.V. "Maritime Jurisdiction in Southeast Asia: A Commentary a.d Map" (1981) Honolulu, MI, East-West Center

Prescott J.R.V. " The Maritime Political Boundaries of the World" (1985) Methuen, New York

Rahman H. B. "Delimitation of Maritime Boundaries : A Survey of Problems in the Bangladesh Case" 24 Asian Survey (July-Dec 1984) page 1302-1317

Rama Rao T.S. "Some Problems of International Law in India" 6 Indian Yearbook of International Affairs (1957) page 10-21

Roonwal G.S. "The Indian Ocean : Exploitable Mineral and Petroleum Resources" (1986) Springer-Verlag, W.Germany

Sastri V.V., Sinha R.N., Singh G., Murti K.V.S. "Stratigraphy and Tectonics of Sedimentary Basins of East Coast of Peninsular India" 57:4 Bull Am. Assoc. Petrol. Geol. (1973) page 655-678

Shyam M.R. "Extended Maritime Jurisdiction and its impact on South Asia" 10 Ocean Development and International Law (1981) page 93-112

Shyam M.R. "The New International Economic Order and the New Regime for Fisheries Management" 8 Ocean Management (1982) page 51-64

Sinha P.C. "Indian Ocean Policy-South Asian and Global Perspectives" 1 Oceans (1989) page164-169

Smith R.W. "A Geographical Primer to Maritime Boundary Making" 12:1/2 Ocean Development and International Law (1982) page 1-22

Smith R.W. "Exclusive Economic Zone Claims- An Analysis and Primary Documents (1986) Maritinus Nijhoff Publishers, The Netherlands

Smith R.W. "Trends in National Maritime Claims" 32:2 Professional Geographer (1980) page 216-223

U.S. Department of State. Office of the Geographer " Continental Shelf Boundaries: India-Indonesia-Thailand (1981) Limits in the Seas Series No. 93

U.S. Department of State. Office of the Geographer " Maritime Boundaries: India-Sri Lanka (1978) Limits in the Seas no. 77

U.S. Department of State. Office of the Geographer "Continental Shelf Boundary : India-Indonesia" (1975) Limits in The Seas Series No. 62

U.S. Department of State. Office of the Geographer "Historic Water Boundary: India-Sri Lanka (1975) Limits in the Seas No. 66

U.S. Department of State. Office of the Geographer "Maritime Boundary : India-Maldives' and Maldives' Claimed Economic Zone" (1978) Limits in the Seas # 78

UN/FAO, Fishery Country Profile, India, May 1985 FID/CP/IND REV.3

United Nations Office for Ocean Affairs and the Law of the Sea "The Law of the Sea: Maritime Boundary Agreements (1970-1984)" (1987) New York

United Nations Third UN Convention on the Law of the Sea (1982), UN Document A/Conf. 62/122

United Nations UN General Assembly, Eleventh Session, Sixth Committee, (December 6, 1956)

United Nations UN Report of I.L.C., General Assembly, 11th Session, Supplement # 9 (A/3159) NY (1956)