

# Oceans and the Regulatory Framework: A techno-legal perspective

**B. Vijay Kumar**

National Institute of Oceanography, Dona Paula, Goa-403 004

bvkumar@nio.org

In the law of the sea, there are four categories of nation states: coastal, archipelagic (island) geographically disadvantaged and land-locked. Coastal and Island states are directly involved in seaborne trade, and have access to the resources of their own maritime zones. However, other factors such as land area, length and nature of coastline, area of continental shelf and, more particularly, the ratios between these indicators play a role in determining the potential importance of the sea in a nation's life.

Within these techno-legal and geographic indicators are many more specific factors such as the geology of the shelf, the productivity of coastal waters, and the presence of harbours. Given this techno-legal and geographical context, the actual importance of the sea to a particular state is largely a matter of socio-economic factors such as population and degree of development. In turn these are compounded with political considerations to define a government's policy. The outcome is that each state has a unique attitude to international maritime law.

Three main roles can be identified in all this complexity viz, strategic (naval), mercantile (trading and shipping) and resource-orientated (fishing, hydrocarbons, and minerals). But they do not necessarily coincide with identifiable groups of nations. Broadly speaking, every coastal or island state has an interest in the exploitation of its own marine resources; some of them have important mercantile interests, while a few others are involved in strategic issues. The relative importance of these three roles will affect a state's maritime policy and hence its attitude to the law of the sea. An island state is probably very sensitive about the exploitation of fisheries around its shores by foreign vessels and keen to extend its jurisdiction seawards, while a major maritime state will favour unrestricted passage through international sea lanes and protection of its offshore oil interests. The international legal regime is an expression of the interactions between these differing attitudes, *albeit* delayed and distorted by the process of formulation.

## The Background to the Law of the Sea Conventions

There have been four major official attempts to codify the peacetime rules of the international law of the sea. The first was instigated by the League of Nations in 1924 and a Conference convened at the Hague in 1930.

When the League of Nations was replaced by the United Nations in 1945, it was thought desirable to provide for the establishment of a body – the International Law Commission (ILC), charged with the 'progressive codification' of international law. During its early years, the ILC embarked on the preparation of draft articles on the high seas and the territorial sea. At the request of the UN General Assembly, the ILC had by 1956, produced a report covering all aspects of the law of the sea of contemporary importance. This report formed the basis of the work of the First United Nations Conference on the Law of the Sea (UNCLOS I), held at Geneva in 1958. UNCLOS I was attended by eighty-six states. It succeeded in adopting four Conventions: the Convention on the Territorial Sea and the Contiguous Zone; the Convention on the High Seas; the Convention on the Continental Shelf; and the Convention on Fishing and Conservation of the Living Resources of the High Seas. The first three of these have been ratified by substantial numbers of states, and are also based in large measure upon customary international law, as presented in the ILC's reports.

## The Law of the Sea Conventions

The four Conventions negotiated in 1958 entered into force during the period 1962-66. They marked a great advance in obtaining international agreement and spelled out the agreement in some detail. Yet they contain legal loopholes that are open to considerable variation of interpretation and liable to abuse. Moreover, most of the present large number of developing nations, who had not achieved their independence until 1958, played no role in the negotiation and thus regarded much of the regime as inappropriate to their interests. The 1958 Conventions are being superseded by a new international agreement—the UN Convention on the Law of the Sea (UNCLOS III)—overcoming most of their deficiencies. Just as the 1958 Conventions codified and reinforced existing customary law, and the application of their provisions generated new customary law binding on non-adherents (a form of positive feedback), so is UNCLOS III influencing the development of the present legal regime.

The one major problem which UNCLOS I could not solve was the breadth of the territorial sea. Accordingly, a second conference, UNCLOS II, was convened in 1960 to discuss the problem, and also the associated question of fishery limits. It failed, by only one vote, to adopt a compromise formula providing for a six mile

territorial sea plus a six mile fishery zone. Agreement on the breadth of the territorial sea had to await the preparation of the Convention drawn up by the Third United Nations Conference on the Law of the Sea (UNCLOS III) more than half a century after the first attempt at the Hague.

UNCLOS III had its origins in the Sea Bed Committee established in 1967 by the United Nations General Assembly to examine the question of the deep seabed lying beyond the limits of national jurisdiction over the continental shelf, following a proposal by Dr. Arvid Pardo, the Maltese ambassador. It was agreed in 1970, in General Assembly Resolution 2570, to convene a United Nations Conference with the task of producing a comprehensive Convention on the Law of the Sea. The Conference held its first session in 1973, and worked for several months each year until it finally adopted a Convention in 1982. On 10 December 1982, the Convention (UNCLOS III) was opened for signature in Jamaica and had since come into force on 16 November 1994 at the end of sixty ratifications in November 1993. The 1982 Convention on the Law of the Sea which was adopted as a comprehensive package, introduced a new equity in the relationship among states with respect to

the uses of the ocean and the allocation of its resources.

It deals, among other things, with the sovereignty and jurisdiction of states over maritime areas adjacent to their coasts, navigation and marine transport, overflight of aircraft, marine pollution, marine scientific research and technology, conservation and exploitation of marine living resources, and the development and exploitation of marine nonliving resources in national and international areas.

UNCLOS III comprehensively updated the four separate Conventions of 1958 into a single package. Its 320 articles and nine annexes deal with almost every human use of the oceans and constitute a global framework for a maritime conduct of nations. It is intended to establish a unified international legal regime for all purposes, symbolizing the unity of the marine environment and the need for international standards in the management of fish stocks, pollution, and so on. There is further recognition not only of functional divisions, such as the territorial sea and the exclusive economic zone (See below 'maritime zones' and Figure 1); but also of the political dimension, especially the interests of developing countries.

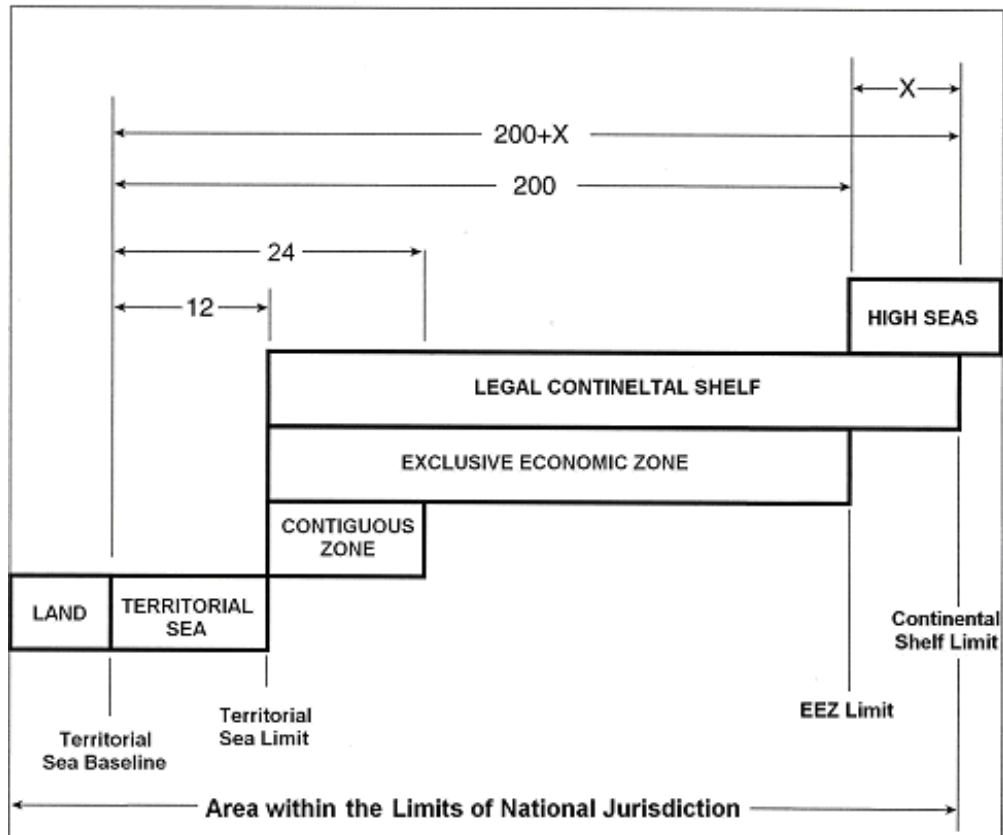


Fig. 1. The major divisions of the ocean under the UNCLOS treaty.

The Convention can also be seen as a sort of 'umbrella', setting out general principles and encouraging the development of other specialized agreements in the future by providing standards and a consistent framework. Thus, the UNCLOS III equivalent of Article 6 of the Convention on the High Seas forms the basis of international shipping law, but the regulations governing ships' safety and the control of pollution from ships are negotiated within the International Maritime Organization (IMO), a specialized agency of the UN, headquartered in London.

### **The Deep Sea-bed Regime**

The industrialised states with deep seabed mining interests, particularly the US, UK, Germany, Japan, Italy, Russia, France and the Netherlands did not ratify the 1982 Convention (UNCLOS III) because of their dissatisfaction with Part XI and the related Annexes on the deep seabed mining regime. The sustained position of the industrialised states had over the years led to an offer of dialogue and probable major alterations to Part XI from the G-77 in September 1989, later transferring itself into an United Nations initiative and informal consultation of June 1990. The outcome of this crucial dialogue is the 1994 draft Agreement relating to the implementation of Part XI of the Convention and a draft resolution by which the UN General Assembly would adopt the Agreement and urge states to adhere to it and to the Convention. The resolution was adopted by the General Assembly on 28 July 1994 by a vote of 121-0-7. The prospect of the Convention coming into force in November 1994 had quickened the pace of developments towards the successful completion of the Agreement. The Convention entered into force on 16 November 1994 in accordance with article 308, which provides for entry into force 12 months after the date of deposit of the sixtieth instrument of ratification or accession. This has come about by virtue of the fulfillment of this provision beginning in December 1982 and completing on 16 November 1993 after the sixtieth ratification.

The Resolution and the Agreement seek to achieve universal participation and widespread ratification to the Convention by way of modifications and improvements to Part XI in recognition of the demands of the industrialised states and a growing world-wide reliance on market-oriented principles accompanied by the economic and political changes of the intervening period between 1983 and 1994. The Agreement consists of a preamble, 10 articles and an annex divided into 9 sections. Dwelling on the relationship between the Agreement and Part XI, article 2 of the Agreement provides that it is to be interpreted and applied together with Part XI as a single instrument and in the event of any inconsistency between them, the Agreement will prevail.

### **Maritime Zones**

The provisions of the Convention concerning various maritime zones are summarized below.

#### *Territorial Sea and Contiguous Zone*

Every coastal state has sovereignty over its territorial sea, up to 12-mile wide as from straight baselines running along the coast (Figure 1). Foreign vessels, including merchant ships and warships, are permitted 'innocent passage' through these waters, defined as navigation that does not prejudice the coastal state's peace, good order or security. In a further 12-mile area, called the contiguous zone, the coastal state can exercise the control needed to prevent infringement of its customs, and of its fiscal, immigration and sanitary laws, and can punish violators.

#### *Straits used for International Navigation*

Vessels and aircraft of all nations may exercise 'transit passage' through these straits. This is defined as freedom of navigation and overflight solely for the purpose of continuous and expeditious transit, without threat to the states on either side, which are entitled to regulate navigation and other aspects of passage.

#### *Archipelagic States*

States made up of a group or groups of closely related islands and interconnecting waters have sovereignty over a sea area enclosed by straight lines drawn between the outermost points of the islands, while the ships of all other states enjoy the right of passage through sea lanes designated by the archipelagic state.

#### *Exclusive Economic Zone*

The Convention made very significant changes in the ability and right of states to use marine resources. It has established the concept of EEZ of 200 miles (Figure 1) in which states have extensive rights in relation to natural resources, certain jurisdiction over scientific research and environmental protection, and other states enjoy the freedoms of navigation, overflight by aircraft and the laying of submarine cables and pipelines. States are to co-operate for the conservation of highly migratory species including marine mammals. Land-locked states and 'states with special geographical characteristics' have the right to participate in exploiting part of the zone's fisheries when the coastal state cannot harvest them all itself.

Delimitation of economic zones between states will be 'effected by agreement on the basis of international law in order to achieve an equitable solution'.

It was only through the debates at UNCLOS III on the system of 200 mile economic zones and after having written this system into the UNCLOS III negotiating text in 1975 that extensions to 200 miles became a general and dominant practice. In the new 200 mile zones, the

ideas of UNCLOS III have played an extremely important role by being adopted in national legislation and thereby appearing as elements of relevant state practice.

EEZ's legal status is left *sui generis* (of its own kind) by the wording of the Convention since it is not clearly stated to be part of the high seas. Articles 55 and 86 make it clear that the EEZ does not have a residual high seas-or a territorial sea character.

The EEZ is a reflection of the aspiration of the developing countries for economic development and the desire to gain greater control over the economic resources off their coasts, particularly fish stocks, which in many cases were largely exploited by the distant-water fleets of developed states. The EEZ in one concept aims to secure for coastal states the resources of the sea, seabed and subsoil, irrespective of variations in geographical or economic or ecological circumstances. India is among the major beneficiaries and has about 2.01 million square kilometers EEZ which is about 2/3<sup>rd</sup> of its land area.

The universal establishment of 200 mile EEZ's would embrace about thirty-six percent of the total area of the sea. The area falling within 200 mile limits contains over ninety percent of all commercially exploitable fish stocks, about eighty seven percent of the world's known submarine oil deposits, and about ten percent of manganese nodules. Furthermore, a large proportion of marine scientific research takes place within 200 miles of the coast and virtually all the major shipping routes of the world pass through the EEZ's. The EEZ in one concept aims to secure coastal states the resources of the sea, seabed and subsoil, irrespective of variations in geographical or economic or ecological circumstances.

### *Continental Shelf*

Coastal States have sovereign rights over this national area of the sea-bed for the purpose of exploring and exploiting it, without affecting the legal status of the water or air space above. The shelf extends at least to 200 miles from shore, and out to 350 miles or even beyond, depending on the nature and configuration of the continental margin (Figures 1 and 2). Coastal states will be required to pay to the International Sea-Bed Authority a part of the revenue they derive from exploiting oil and other resources from any part of their shelf beyond 200 miles. Delimitation of overlapping shelves is to be on the same basis as for the exclusive economic zone.

In order to avoid disputes over the limits of the shelf, states are obliged to notify the outer limit established in accordance with the rules described above, to the Commission on the Limits of the Continental Shelf provided for in Annex II of the

Convention and to the Secretary General of the United Nations, who will give due publicity to them [Law of the Sea Convention (LOSC), art 76(7), (8), (9)]. The Commission may make recommendations to states concerning the delimitation; and 'the limits of the shelf established by a coastal state on the basis of these recommendations shall be final and binding' [LOSC, art. 76(8)].

The legal definition of the shelf is quite distinct and different from the geographical definition – areas of the seabed which lie beyond the continental margin are included, so long as they are within 200 miles, of the coast. Where the continental margin (defined in article 76 (3) as consisting of the shelf, slope and rise and excluding the deep oceanic floor with its oceanic ridges) extends beyond 200 miles, the outer limit of the legal continental shelf is either a line connecting points not more than sixty miles apart, at each of which points the thickness of sedimentary rocks is at least one percent of the shortest distance from such point to the foot of the continental slope, or a line connecting points not more than sixty miles apart, which points are not more than sixty miles from the foot of the slope. In each case the points referred to are subject to a maximum seaward extent – they must be either within 350 miles of the baseline or within 100 miles of the 2500 metre isobath [LOSC art 76 (4), (5)]. These limits would allow the inclusion within the national jurisdiction of substantially the entire continental margin.

The basic principle which has always governed coastal state rights is that these rights are limited to the exploration of the shelf and exploitation of its natural resources. In other words, the shelf is not regarded as part of the territory of the coastal state. Rights to all the natural resources of the bed do, however, attach to the coastal state. The sovereign rights attached to the coastal state cover all the natural resources of the shelf, i.e. the mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species, to say, 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 [Continental Shelf Convention (CSC), art 2 (4); LOSC, art 77(4)].

The coastal state has sovereign rights for the purpose of exploring the shelf and exploiting its natural resources (CSC, art 2(1); LOSC, arts 56(1), 77(1)). These rights are exclusive in the sense that no state can undertake such activities without the coastal States' consent (CSC, art 2(2); LOSC, art. 77 (2)), and the rights do not depend on occupation or proclamation but automatically attach to the coastal state (CSC, art. 2(3); LOSC, art. 77(3)). It follows that it is for the coastal state, through its own laws and regulations, to define the

conditions under which such exploration and exploitation are to be conducted. The coastal states rights are not, however, unlimited. In earlier practice (and under the Continental Shelf Convention) the superjacent waters were high seas, and freedom of navigation and fishing were preserved; now the latter freedom has disappeared in the EEZ, but it is still provided that the exercise of the rights of the coastal state over the continental shelf must not infringe or result in any unjustifiable interference with navigation and other rights and freedoms of other states as provided for in this Convention (LOSC, art. 78(2)).

No installations may be erected 'where interference may be caused to the use of recognised sea lanes essential to international navigation' (CSC, art 5(6); LOSC, art. 60 (7)). While the 1958 Convention requires the complete removal of abandoned installations (CSC, art. 5(5)), the 1982 Convention does not, but merely requires that they be removed 'to ensure safety of navigation' and taking account of generally accepted international standards (such as those being developed by the IMO) and having due regard to other interests such as fishing and the marine environment, with appropriate publicity being given to installations only partly removed (LOSC art. 60(3)). A further limitation on coastal state rights results from the obligation to permit, subject to measures to protect rights of exploration and exploitation and to other reasonable conditions, the laying of submarine pipelines and cables by other states on the shelf (CSC, art. 4; LOSC, art. 79). Conditions may relate to the course of cables and pipelines, and the prevention of pollution from or by them, and to other matters where the pipes or cables enter the territorial sea of the coastal state.

Coastal state rights over the shelf beyond the 200 mile zone are slightly different, since the superjacent waters are in that area high seas, rather than part of the coastal state's EEZ. Generally the same rights exist in relation to exploration and exploitation, and the establishment of installations, and the same obligations regarding respect for the freedoms of pipeline and cable laying and of navigation. But significant differences exist thereto. First, in relation to living resources, the question of what is comprised within the category of sedentary species becomes critical. While sedentary species still remain exclusively under the rights of the coastal state, non-sedentary species fall under the regime of free fishing, as one of the freedoms of the high seas. Accordingly, if commercial fisheries are found at such distances from land, disputes over whether a particular species is sedentary could arise as they have done in the past. Secondly, and more important, exploitation of non-living resources is subject to additional restrictions under the Law of the Sea Convention. Where such resources are exploited in this outer portion of the shelf, the coastal state would have to pay to the International Seabed Authority (hereinafter: the Authority) a proportion

of the value or volume of the production at the site after the first five years of exploitation. The proportion would rise from one percent in the sixth year to seven percent in the twelfth and following years. The Authority would distribute any such payments to states parties to the Convention – 'on the basis of equitable sharing criteria, taking into account the interests and needs of developing states, particularly the least developed and the land-locked among them (LOSC, art. 82(4)). Developing countries which are net importers of the minerals exploited would be exempt from the obligation to pay (LOSC, art. 82(3)). This scheme is a kind of *quid pro quo* (something for something) for the diminution of the resources of the International seabed area consequent upon allowing jurisdiction over the shelf beyond the 200 mile limit.

### *High Seas*

All States enjoy the traditional freedoms of navigation, over-flight; scientific research and fishing in this area of the oceans beyond national jurisdiction (Figure 1). They will be obliged to adopt or co-operate with other states in adopting measures to manage and conserve living resources.

### *Regime of Islands*

The territorial sea, contiguous zone, exclusive economic zone and continental shelf of islands are to be determined in the same way as for other land territory, but uninhabitable rocks will have no economic zone or continental shelf.

### *Enclosed or Semi-Enclosed Seas*

States bordering seas such as the Caribbean and the Mediterranean should co-operate on management of living resources and on environmental and research policies and activities.

### *Right of Access of Land-Locked States to and from the Sea, and Freedom of Transit*

The people and goods of states with no sea coast must be allowed to move through a neighbouring coastal state to reach and return from the sea, under mutually agreed terms.

### *International Sea-Bed Area*

All activities on the sea-bed area beyond national jurisdiction (eg. manganese nodules exploration and mining) will be controlled by the Authority following the principle that the area and its resources are the common heritage of mankind (Figure 2). A parallel system will be established under which exploration and exploitation of deep-sea minerals will be carried out by the Authority as well as by states and private and public corporations and consortia under contract with the Authority. The Authority will establish rules, regulations and procedures for seabed mining, in accordance with basic conditions for prospecting, exploration and exploitation set out in the

Convention. The Authority will have an Enterprise for mining, as well as an Assembly, a Council and a Secretariat. A Sea-bed Disputes Chamber of the

International Tribunal for the Law of the Sea, headquartered in Hamburg, will settle disputes and issue advisory opinions on request.

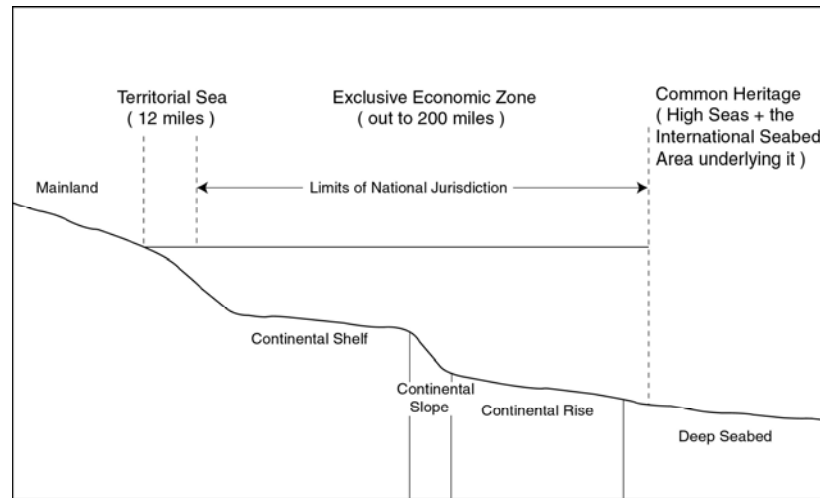


Fig. 2. The International Seabed Area in Perspective.

### *Protection and Preservation of the Marine Environment*

States are obligated to use 'the best practical means at their disposal' to prevent and control marine pollution from any source. They are to co-operate globally and regionally, notify one another of imminent or actual damage, and develop contingency plans against pollution. Technical assistance, monitoring and environmental assessment will be promoted. International rules and national legislation will be devised to prevent, reduce and control pollution of the marine environment from land-based sources and activities on the oceans and sea-bed, including dumping. Enforcement will be the responsibility of coastal states, port states, and flag states, depending on the nature, source and location of the offence. Safeguards can be invoked against inappropriate enforcement actions. Ice-covered areas may be protected by special rules against pollution from vessels. States will be liable for damage caused by violation of their international obligations to combat marine pollution. Warships will have sovereign immunity from environmental regulations imposed by other states, but the states operating them must ensure that they act in a way that is consistent with the Convention as far as practicable. Obligations under other Conventions on the protection and preservation of the marine environment will not be prejudiced by the new Convention.

### *Marine Scientific Research*

All States have the right to conduct ocean research for exclusively peaceful purposes. International co-

operation in this area is to be promoted through such means as the publication and dissemination of information and knowledge. All such research in the exclusive economic zone and on the continental shelf is subject to the consent of the coastal state, but consent must be given when the research is for peaceful purposes and fulfills other criteria laid down in the Convention. Scientific research installations or equipment in the marine environment must not interfere with shipping routes and must bear identification markings and warning signals. States and international organizations are to be held responsible for damage caused by their own research activities or for action they take against the research conducted by others when such action contravenes the Convention. In the event of certain disputes the researching state may require the coastal state to submit to international conciliation on the grounds that it is not acting in a manner compatible with the Convention.

### *Development and Transfer of Marine Technology*

States are bound to promote marine technology 'on fair and reasonable terms and conditions', with due regard for all legitimate interests, including the rights and duties of holders, suppliers and recipients of technology. International co-operation will be promoted through the establishment of guidelines, criteria and standards for technology transfer, co-ordination of international programmes, and co-operation with international organizations. The establishment and strengthening of national and regional marine scientific and technological centres are to be promoted.

## Settlement of Disputes

States are obligated to settle by peaceful means any disputes over the interpretation or application of the Convention. When they cannot reach agreement on a bilateral basis, they will have to submit most types of disputes to a compulsory procedure entailing a decision binding on all sides. They will have four options: 1) the International Tribunal for the Law of the Sea 2) the International Court of Justice 3) Arbitration and 4) Special arbitration procedures for particular categories of disputes. Certain types of disputes will have to be submitted to conciliation, a procedure whose outcome is not binding on the parties. States will have the option of declining to accept compulsory settlement procedures for certain types of disputes on especially sensitive matters such as boundaries and military activities.

## General Provisions

States undertake to discharge their obligations under the Convention in good faith and without abusing their rights, and to refrain from threatening or using force contrary to international law. They are not bound to disclose information contrary to their essential security interests. Coastal states have jurisdiction over archaeological objects and objects of historical origin found at sea up to the outer edge of their contiguous zone (24 miles from shore).

## Final Provisions

The non-sea bed provisions of the Convention can be amended by two-thirds of the states which are party to the Convention, but the amendments will apply only to those states which ratify or accede to them. The sea-bed provisions can be amended with the approval of the Assembly and the Council of the Authority, but only if they do not prejudice the system of exploration and exploitation pending a review Conference to be held 15 years after commercial exploitation begins. Intergovernmental organizations to which states have transferred legal competence over matters governed by the Convention can sign and accede to it under specified conditions.

## The Indian Legislative Response

In pursuance of the developments at UNCLOS III and State practice, India amended its Constitution in 1976 and enacted the Maritime Zones Act 1976, the Coastguard Act in 1978, the Maritime Zones of India (Regulation of fishing by foreign vessels) Act in 1981 and rules pursuant thereto in August 1982, and the Environment Protection Act in 1986.

India thus has a 12 nm Territorial Sea, a 24 nm Contiguous Zone, a 200 nm EEZ, the continental shelf extending beyond 200 nm in conformity with UNCLOS III and a Pioneer Area for seabed exploration and production as envisaged in the Convention and the Implementation Agreement (See Figure 3). India had

signed the Convention on 12.10.1982 and ratified it on 29.6.1995.

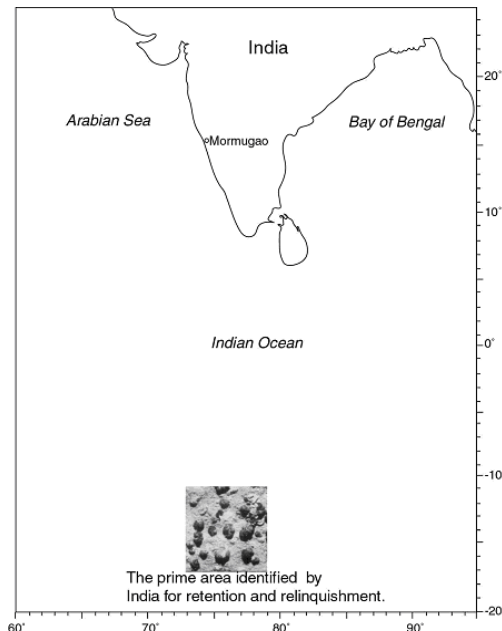


Fig. 3. The minesite in the international seabed area.

According to the amended Act 297 of the Constitution, all lands, minerals and other things of value underlying the ocean within the territorial waters or the continental shelf of the EEZ of India as well as other resources of Indian EEZ shall vest in the union of India and be held for the purpose of the union.

## For further knowledge

Anand, R.P: Legal Regime of the Sea-bed and the Developing Countries. Nijhoff, 1976.

Case Studies in Oceanography and Marine Affairs. The Open University, UK, and the Pergamon Press, Oxford, 1991.

Churchill, R.R. and A.V. Lowe: The Law of the Sea. Manchester, 1988.

O'Connell, D.P: The International Law of the Sea. 2 Vols. Oxford, 1982, 1984.

Sanger, C: Ordering the Oceans – The Making of the Law of the Sea, Zed Books, 1986.

UN Conventions on the Law of the Sea (UNCLOS I), 1958: On the High Seas; the Territorial Sea and Contiguous Zone; the Continental Shelf; Fishing and the Conservation of the Living Resources of the Sea.

UN Convention on the Law of the Sea (UNCLOS III), 1982. United Nations Publication, E 83. V.5, New York, 1983.