- (b) the manning of ships, labour conditions and the training of crews, taking into account the applicable international instruments;
- (c) the use of signals, the maintenance of communications and the prevention of collisions.
- 4 Such measures shall include those necessary to ensure:
 - (a) that each ship, before registration and thereafter at appropriate intervals, is surveyed by a qualified surveyor of ships, and has on board such charts, nautical publications and navigational equipment and instruments as are appropriate for the safe navigation of the ship;
 - (b) that each ship is in the charge of a master and officers who possess appropriate qualifications, in particular in seamanship, navigation, communications and marine engineering, and that the crew is appropriate in qualification and numbers for the type, size, machinery and equipment of the ship;
 - (c) that the master, officers and, to the extent appropriate, the crew are fully conversant with and required to observe the applicable international regulations concerning the safety of life at sea, the prevention of collisions, the prevention, reduction and control of marine pollution, and the maintenance of communications by radio.
- 5 In taking the measures called for in paras 3 and 4 each state is required to conform to generally accepted international regulations, procedures and practices and to take any steps which may be necessary to secure their observance.
- A state which has clear grounds to believe that proper jurisdiction and control with respect to a ship have not been exercised may report the facts to the flag state. Upon receiving such a report, the flag state shall investigate the matter and, if appropriate, take any action necessary to remedy the situation.
- Each state shall cause an inquiry to be held by or before a suitably qualified person or persons into every marine casualty or incident of navigation on the high seas involving a ship flying its flag and causing loss of life or serious injury to nationals of another state or serious damage to ships or installations of another state or to the marine environment. The flag state and the other state shall co-operate in the conduct of any inquiry held by that other state into any such marine casualty or incident of navigation.

Article 95 Immunity of warships on the high seas

Warships on the high seas have complete immunity from the jurisdiction of any state other than the flag state.

Article 96 Immunity of ships used only on government non-commercial service

Ships owned or operated by a state and used only on government non-commercial service shall, on the high seas, have complete immunity from the jurisdiction of any state other than the flag state.

Article 97 Penal jurisdiction in matters of collision or any other incident of navigation

In the event of a collision or any other incident of navigation concerning a ship on the high seas, involving the penal or disciplinary responsibility of the master or of any other person in the service of the ship, no penal or disciplinary proceedings may be instituted against such person except before the judicial or administrative authorities either of the flag state or of the state of which such person is a national.

- In disciplinary matters, the state which has issued a master's certificate or a certificate of competence or licence shall alone be competent, after due legal process, to pronounce the withdrawal of such certificates, even if the holder is not a national of the state which issued them.
- No arrest or detention of the ship, even as a measure of investigation, shall be ordered by any authorities other than those of the flag state.

Article 98 Duty to render assistance

- Every state shall require the master of a ship flying its flag, in so far as he can do so without serious danger to the ship, the crew or the passengers:
 - (a) to render assistance to any person found at sea in danger of being lost;
 - (b) to proceed with all possible speed to the rescue of persons in distress, if informed of their need of assistance, in so far as such action may reasonably be expected of him;
 - (c) after a collision, to render assistance to the other ship, its crew and its passengers and, where possible, to inform the other ship of the name of his own ship, its port of registry and the nearest port at which it will call.
- 2 Every coastal state shall promote the establishment, operation and maintenance of an adequate and effective search and rescue service regarding safety on and over the sea and, where circumstances so require, by way of mutual regional arrangements co-operate with neighbouring states for this purpose.

Article 99 Prohibition of the transport of slaves

Every state shall take effective measures to prevent and punish the transport of slaves in ships authorised to fly its flag and to prevent the unlawful use of its flag for that purpose. Any slave taking refuge on board any ship, whatever its flag, shall *ipso facto* be free.

Article 100 Duty to co-operate in the repression of piracy

All states shall co-operate to the fullest possible extent in the repression of piracy on the high seas or in any other place outside the jurisdiction of any state.

Article 101 Definition of piracy

Piracy consists of any of the following acts:

- (a) any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:
 - (i) on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;
 - (ii) against a ship, aircraft, persons or property in a place outside the jurisdiction of any state;
- (b) any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft;
- (c) any act of inciting or of intentionally facilitating an act described in subpara (a) or (b).

Article 102 Piracy by a warship, government ship or government aircraft whose crew has mutinied

The acts of piracy, as defined in Article 101, committed by a warship, government ship or government aircraft whose crew has mutinied and taken control of the ship or aircraft are assimilated to acts committed by a private ship or aircraft.

Article 103 Definition of a pirate ship or aircraft

A ship or aircraft is considered a pirate ship or aircraft if it is intended by the persons in dominant control to be used for the purpose of committing one of the acts referred to in Article 101. The same applies if the ship or aircraft has been used to commit any such act, so long as it remains under the control of the persons guilty of that act.

Article 104 Retention or loss of the nationality of a pirate ship or aircraft

A ship or aircraft may retain its nationality although it has become a pirate ship or aircraft. The retention or loss of nationality is determined by the law of the state from which such nationality was derived.

Article 105 Seizure of a pirate ship or aircraft

On the high seas, or in any other place outside the jurisdiction of any state, every state may seize a pirate ship or aircraft, or a ship or aircraft taken by piracy and under the control of pirates, and arrest the persons and seize the property on board. The courts of the state which carried out the seizure may decide upon the penalties to be imposed, and may also determine the action to be taken with regard to the ships, aircraft or property, subject to the rights of third parties acting in good faith.

Article 106 Liability for seizure without adequate grounds

Where the seizure of a ship or aircraft on suspicion of piracy has been effected without adequate grounds, the state making the seizure shall be liable to the state the nationality of which is possessed by the ship or aircraft for any loss or damage caused by the seizure.

Article 107 Ships and aircraft which are entitled to seize on account of piracy

A seizure on account of piracy may be carried out only by warships or military aircraft, or other ships or aircraft clearly marked and identifiable as being on government service and authorised to that effect.

Article 108 Illicit traffic in narcotic drugs or psychotropic substances

- All states shall co-operate in the suppression of illicit traffic in narcotic drugs and psychotropic substances engaged in by ships on the high seas contrary to international conventions.
- Any state which has reasonable grounds for believing that a ship flying its flag is engaged in illicit traffic in narcotic drugs or psychotropic substances may request the co-operation of other states to suppress such traffic.

Article 109 Unauthorised broadcasting from the high seas

- All states shall co-operate in the suppression of unauthorised broadcasting from the high seas.
- 2 For the purposes of this Convention, 'unauthorised broadcasting' means the transmission of sound radio or television broadcasts from a ship or installation on the high seas intended for reception by the general public contrary to international regulations, but excluding the transmission of distress calls.
- Any person engaged in unauthorised broadcasting may be prosecuted before the court of:
 - (a) the flag state of the ship;
 - (b) the state of registry of the installation;
 - (c) the state of which the person is a national;

- (d) any state where the transmissions can be received; or
- (e) any state where authorised radio communication is suffering interference.
- 4 On the high seas, a state having jurisdiction in accordance with para 3 may, in conformity with Article 110, arrest any person or ship engaged in unauthorised broadcasting and seize the broadcasting apparatus.

Article 110 Right of visit

- Except where acts of interference derive from powers conferred by treaty, a warship which encounters on the high seas a foreign ship, other than a ship entitled to complete immunity in accordance with Articles 95 and 96, is not justified in boarding it unless there is reasonable ground for suspecting that:
 - (a) the ship is engaged in piracy;
 - (b) the ship is engaged in the slave trade;
 - (c) the ship is engaged in unauthorised broadcasting and the flag state of the warship has jurisdiction under Article 109;
 - (d) the ship is without nationality; or
 - (e) though flying a foreign flag or refusing to show its flag, the ship is, in reality, of the same nationality as the warship.
- In the cases provided for in para 1, the warship may proceed to verify the ship's right to fly its flag. To this end, it may send a boat under the command of an officer to the suspected ship. If suspicion remains after the documents have been checked, it may proceed to a further examination on board the ship, which must be carried out with all possible consideration.
- 3 If the suspicions prove to be unfounded, and provided that the ship boarded has not committed any act justifying them, it shall be compensated for any loss or damage that may have been sustained.
- 4 These provisions apply *mutatis mutandis* to military aircraft.
- 5 These provisions also apply to any other duly authorised ships or aircraft clearly marked and identifiable as being on government service.

Article 111 Right of hot pursuit

- The hot pursuit of a foreign ship may be undertaken when the competent authorities of the coastal state have good reason to believe that the ship has violated the laws and regulations of that state. Such pursuit must be commenced when the foreign ship or one of its boats is within the internal waters, the archipelagic waters, the territorial sea or the contiguous zone of the pursuing state, and may only be continued outside the territorial sea or the contiguous zone if the pursuit has not been interrupted. It is not necessary that, at the time when the foreign ship within the territorial sea or the contiguous zone receives the order to stop, the ship giving the order should likewise be within the territorial sea or the contiguous zone. If the foreign ship is within a contiguous zone, as defined in Article 33, the pursuit may only be undertaken if there has been a violation of the rights for the protection of which the zone was established.
- The right of hot pursuit shall apply *mutatis mutandis* to violations in the exclusive economic zone or on the continental shelf, including safety zones around continental shelf installations, of the laws and regulations of the coastal state applicable in accordance with this Convention to the exclusive economic zone or the continental shelf, including such safety zones.

- The right of hot pursuit ceases as soon as the ship pursued enters the territorial sea of its own state or of a third state.
- Hot pursuit is not deemed to have begun unless the pursuing ship has satisfied itself by such practicable means as may be available that the ship pursued or one of its boats or other craft working as a team and using the ship pursued as a mother ship is within the limits of the territorial sea, or, as the case may be, within the contiguous zone or the exclusive economic zone or above the continental shelf. The pursuit may only be commenced after a visual or auditory signal to stop has been given at a distance which enables it to be seen or heard by the foreign ship.
- The right of hot pursuit may be exercised only by warships or military aircraft, or other ships or aircraft clearly marked and identifiable as being on government service and authorised to that effect.
- 6 Where hot pursuit is effected by an aircraft:
 - (a) the provisions of paras 1 to 4 shall apply mutatis mutandis,
 - (b) the aircraft giving the order to stop must itself actively pursue the ship until a ship or another aircraft of the coastal state, summoned by the aircraft, arrives to take over the pursuit, unless the aircraft is itself able to arrest the ship. It does not suffice to justify an arrest outside the territorial sea that the ship was merely sighted by the aircraft as an offender or suspected offender, if it was not both ordered to stop and pursued by the aircraft itself or other aircraft or ships which continue the pursuit without interruption.
- The release of a ship arrested within the jurisdiction of a state and escorted to a port of that state for the purposes of an inquiry before the competent authorities may not be claimed solely on the ground that the ship, in the course of its voyage, was escorted across a portion of the exclusive economic zone or the high seas, if the circumstances rendered this necessary.
- Where a ship has been stopped or arrested outside the territorial sea in circumstances which do not justify the exercise of the right of hot pursuit, it shall be compensated for any loss or damage that may have been thereby sustained.

Article 112 Right to lay submarine cables and pipelines

- 1 All states are entitled to lay submarine cables and pipelines on the bed of the high seas beyond the continental shelf.
- 2 Article 79, para 5, applies to such cables and pipelines.

Article 113 Breaking or injury of a submarine cable or pipeline

Every state shall adopt the laws and regulations necessary to provide that the breaking or injury by a ship flying its flag or by a person subject to its jurisdiction of a submarine cable beneath the high seas done wilfully or through culpable negligence, in such a manner as to be liable to interrupt or obstruct telegraphic or telephonic communications, and similarly the breaking or injury of a submarine pipeline or high-voltage power cable, shall be a punishable offence. This provision shall apply also to conduct calculated or likely to result in such breaking or injury. However, it shall not apply to any break or injury caused by persons who acted merely with the legitimate object of saving their lives or their ships, after having taken all necessary precautions to avoid such break or injury.

Article 114 Breaking or injury by owners of a submarine cable or pipeline of another submarine cable or pipeline

Every state shall adopt the laws and regulations necessary to provide that, if persons subject to its jurisdiction who are the owners of a submarine cable or pipeline beneath the high seas, in laying or repairing that cable or pipeline, cause a break in or injury to another cable or pipeline, they shall bear the cost of the repairs.

Article 115 Indemnity for loss incurred in avoiding injury to a submarine cable or pipeline

Every state shall adopt the laws and regulations necessary to ensure that the owners of ships who can prove that they have sacrificed an anchor, a net or any other fishing gear, in order to avoid injuring a submarine cable or pipeline, shall be indemnified by the owner of the cable or pipeline, provided that the owner of the ship has taken all reasonable precautionary measures beforehand.

SECTION 2 CONSERVATION AND MANAGEMENT OF THE LIVING RESOURCES OF THE HIGH SEAS

Article 116 Right to fish on the high seas

All states have the right for their nationals to engage in fishing on the high seas subject to:

- (a) their treaty obligations;
- (b) the rights and duties as well as the interests of coastal states provided for, *inter alia*, in Article 63, para 2, and Articles 64 to 67; and
- (c) the provisions of this section.

Article 117 Duty of states to adopt with respect to their nationals measures for the conservation of the living resources of the high seas

All states have the duty to take, or to co-operate with other states in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas.

Article 118 Co-operation of states in the conservation and management of living resources

States shall co-operate with each other in the conservation and management of living resources in the areas of the high seas. States whose nationals exploit identical living resources, or different living resources in the same area, shall enter into negotiations with a view to taking the measures necessary for the conservation of the living resources concerned. They shall, as appropriate, co-operate to establish subregional or regional fisheries organisations to this end.

Article 119 Conservation of the living resources of the high seas

- In determining the allowable catch and establishing other conservation measures for the living resources in the high seas, states shall:
 - (a) take measures which are designed, on the best scientific evidence available to the states concerned, to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing states, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global;

- (b) take into consideration the effects on species associated with or dependent upon harvested species with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened.
- Available scientific information, catch and fishing effort statistics, and other data relevant to the conservation of fish stocks shall be contributed and exchanged on a regular basis through competent international organisations, whether subregional, regional or global, where appropriate and with participation by all states concerned.
- 3 States concerned shall ensure that conservation measures and their implementation do not discriminate in form or in fact against the fishermen of any state.

Article 120 Marine mammals

Article 65 also applies to the conservation and management of marine mammals in the high seas.

PART VIII REGIME OF ISLANDS

Article 121 Regime of islands

- An island is a naturally formed area of land, surrounded by water, which is above water at high tide.
- Except as provided for in para 3, the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf of an island are determined in accordance with the provisions of this Convention applicable to other land territory.
- Rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf.

PART IX ENCLOSED OR SEMI-ENCLOSED SEAS

Article 122 Definition

For the purposes of this Convention, 'enclosed or semi-enclosed sea' means a gulf, basin or sea surrounded by two or more states and connected to another sea or the ocean by a narrow outlet or consisting entirely or primarily of the territorial seas and exclusive economic zones of two or more coastal states.

Article 123 Co-operation of states bordering enclosed or semi-enclosed seas

States bordering an enclosed or semi-enclosed sea should co-operate with each other in the exercise of their rights and in the performance of their duties under this Convention. To this end they shall endeavour, directly or through an appropriate regional organisation:

- (a) to co-ordinate the management, conservation, exploration and exploitation of the living resources of the sea;
- (b) to co-ordinate the implementation of their rights and duties with respect to the protection and preservation of the marine environment;
- (c) to co-ordinate their scientific research policies and undertake where appropriate joint programmes of scientific research in the area;

(d) to invite, as appropriate, other interested states or international organisations to co-operate with them in furtherance of the provisions of this article.

PART X

RIGHT OF ACCESS OF LAND-LOCKED STATES TO AND FROM THE SEA AND FREEDOM OF TRANSIT

Article 124 Use of terms

- 1 For the purposes of this Convention:
 - (a) 'land-locked state' means a state which has no sea-coast;
 - (b) 'transit state' means a state, with or without a sea-coast, situated between a land-locked state and the sea, through whose territory traffic in transit passes;
 - (c) 'traffic in transit' means transit of persons, baggage, goods and means of transport across the territory of one or more transit states, when the passage across such territory, with or without trans-shipment, warehousing, breaking bulk or change in the mode of transport, is only a portion of a complete journey which begins or terminates within the territory of the land-locked state;
 - (d) 'means of transport' means:
 - (i) railway rolling stock, sea, lake and river craft and road vehicles;
 - (ii) where local conditions so require, porters and pack animals.
- 2 Land-locked states and transit states may, by agreement between them, include as means of transport pipelines and gas lines and means of transport other than those included in para 1.

Article 125 Right of access to and from the sea and freedom of transit

- 1 Land-locked states shall have the right of access to and from the sea for the purpose of exercising the rights provided for in this Convention including those relating to the freedom of the high seas and the common heritage of mankind. To this end, land-locked states shall enjoy freedom of transit through the territory of transit states by all means of transport.
- 2 The terms and modalities for exercising freedom of transit shall be agreed between the land-locked states and transit states concerned through bilateral, subregional or regional agreements.
- 3 Transit states, in the exercise of their full sovereignty over their territory, shall have the right to take all measures necessary to ensure that the rights and facilities provided for in this Part for land-locked states shall in no way infringe their legitimate interests.

Article 126 Exclusion of application of the most-favoured-nation clause

The provisions of this Convention, as well as special agreements relating to the exercise of the right of access to and from the sea, establishing rights and facilities on account of the special geographical position of land-locked states are excluded from the application of the most-favoured-nation clause.

Article 127 Customs duties, taxes and other charges

1 Traffic in transit shall not be subject to any customs duties, taxes or other charges except charges levied for specific services rendered in connection with such traffic.

Means of transport in transit and other facilities provided for and used by land-locked states shall not be subject to taxes or charges higher than those levied for the use of means of transport of the transit state.

Article 128 Free zones and other customs facilities

For the convenience of traffic in transit, free zones or other customs facilities may be provided at the ports of entry and exit in the transit states, by agreement between those states and the land-locked states.

Article 129 Co-operation in the construction and improvement of means of transport

Where there are no means of transport in transit states to give effect to the freedom of transit or where the existing means, including the port installations and equipment, are inadequate in any respect, the transit states and land-locked states concerned may co-operate in constructing or improving them.

Article 130 Measures to avoid or eliminate delays or other difficulties of a technical nature in traffic in transit

- 1 Transit states shall take all appropriate measures to avoid delays or other difficulties of a technical nature in traffic in transit.
- 2 Should such delays or difficulties occur, the competent authorities of the transit States and land-locked states concerned shall co-operate towards their expeditious elimination.

Article 131 Equal treatment in maritime ports

Ships flying the flag of land-locked states shall enjoy treatment equal to that accorded to other foreign ships in maritime ports.

Article 132 Grant of greater transit facilities

This Convention does not entail in any way the withdrawal of transit facilities which are greater than those provided for in this Convention and which are agreed between States Parties to this Convention or granted by a state Party. This Convention also does not preclude such grant of greater facilities in the future.

PART XI THE AREA SECTION 1 GENERAL PROVISIONS

Article 133 Use of terms

For the purposes of this Part:

- (a) 'resources' means all solid, liquid or gaseous mineral resources *in situ* in the Area at or beneath the sea bed, including polymetallic nodules;
- (b) resources, when recovered from the Area, are referred to as 'minerals'.

Article 134 Scope of this Part

- 1 This Part applies to the Area.
- 2 Activities in the Area shall be governed by the provisions of this Part.
- 3 The requirements concerning deposit of, and publicity to be given to, the charts or lists of geographical co-ordinates showing the limits referred to in Article 1, para 1 (1), are set forth in Part VI.
- 4 Nothing in this article affects the establishment of the outer limits of the continental shelf in accordance with Part VI or the validity of agreements relating to delimitation between states with opposite or adjacent coasts.

Article 135 Legal status of the superjacent waters and air space

Neither this Part nor any rights granted or exercised pursuant thereto shall affect the legal status of the waters superjacent to the Area or that of the air space above those waters.

SECTION 2 PRINCIPLES GOVERNING THE AREA

Article 136 Common heritage of mankind

The Area and its resources are the common heritage of mankind.

Article 137 Legal status of the Area and its resources

- No state shall claim or exercise sovereignty or sovereign rights over any part of the Area or its resources, nor shall any state or natural or juridical person appropriate any part thereof. No such claim or exercise of sovereignty or sovereign rights nor such appropriation shall be recognised.
- All rights in the resources of the Area are vested in mankind as a whole on whose behalf the Authority shall act. These resources are not subject to alienation. The minerals recovered from the Area, however, may only be alienated in accordance with this Part and the rules, regulations and procedures of the Authority.
- No state or natural or juridical person shall claim, acquire or exercise rights with respect to the minerals recovered from the area except in accordance with this Part. Otherwise, no such claim, acquisition or exercise of such rights shall be recognised.

Article 138 General conduct of states in relation to the Area

The general conduct of states in relation to the Area shall be in accordance with the provisions of this Part, the principles embodied in the Charter of the United Nations and other rules of international law in the interests of maintaining peace and security and promoting international co-operation and mutual understanding.

Article 139 Responsibility to ensure compliance and liability for damage

- States Parties shall have the responsibility to ensure that activities in the Area, whether carried out by States Parties, or state enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, shall be carried out in conformity with this Part. The same responsibility applies to international organisations for activities in the Area carried out by such organisations.
- Without prejudice to the rules of international law and Annex III, Article 22, damage caused by the failure of a state Party or international organisation to carry out its responsibilities under this Part shall entail liability, States Parties or international organisations acting together shall bear joint and several liability. A state Party shall not however be liable for damage caused by any failure to comply with this Part by a person whom it has sponsored under Article 153, para 2(b), if the state Party has taken all necessary and appropriate measures to secure effective compliance under Article 153, para 4, and Annex III, Article 4, para 4.
- 3 States Parties that are members of international organisations shall take appropriate measures to ensure the implementation of this article with respect to such organisations.

Article 140 Benefit of mankind

- Activities in the Area shall, as specifically provided for in this Part, be carried out for the benefit of mankind as a whole, irrespective of the geographical location of states, whether coastal or land-locked, and taking into particular consideration the interests and needs of developing states and of peoples who have not attained full independence or other self-governing status recognised by the United Nations in accordance with General Assembly Resolution 1514 (XV) and other relevant General Assembly resolutions.
- The Authority shall provide for the equitable sharing of financial and other economic benefits derived from activities in the Area through any appropriate mechanism on a non-discriminatory basis, in accordance with Article 160, para 2 (f)(i).

Article 141 Use of the Area exclusively for peaceful purposes

The Area shall be open to use exclusively for peaceful purposes by all states, whether coastal or land-locked, without discrimination and without prejudice to the other provisions of this Part.

Article 142 Rights and legitimate interests of coastal states

- Activities in the Area, with respect to resource deposits in the Area which lie across limits of national jurisdiction, shall be conducted with due regard to the rights and legitimate interests of any coastal state across whose jurisdiction such deposits lie.
- Consultations, including a system of prior notification, shall be maintained with the state concerned, with a view to avoiding infringement of such rights and interests. In cases where activities in the Area may result in the exploitation of resources lying within national jurisdiction, the prior consent of the coastal state concerned shall be required.
- Neither this Part nor any rights granted or exercised pursuant thereto shall affect the rights of coastal states to take such measures consistent with the relevant provisions of Part XII as may be necessary to prevent, mitigate or eliminate grave and imminent danger to their coastline, or related interests from pollution or threat thereof or from other hazardous occurrences resulting from or caused by any activities in the Area.

Article 143 Marine scientific research

- Marine scientific research in the Area shall be carried out exclusively for peaceful purposes and for the benefit of mankind as a whole in accordance with Part XIII.
- The Authority may carry out marine scientific research concerning the Area and its resources, and may enter into contracts for that purpose. The Authority shall promote and encourage the conduct of marine scientific research in the Area, and shall co-ordinate and disseminate the results of such research and analysis when available.
- 3 States Parties may carry out marine scientific research in the Area. States Parties shall promote international co-operation in marine scientific research in the Area by:
 - (a) participating in international programmes and encouraging co-operation in marine scientific research by personnel of different countries and of the Authority;