BACKGROUND PAPER 5

THE LEGAL FRAMEWORK FOR MPAs AND SUCCESSES AND FAILURES IN THEIR INCORPORATION INTO NATIONAL LEGISLATION[1]

by

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Summary

The development and implementation of protected areas legislation applicable to marine and aquatic areas has been strongly promoted in recent years as a potential tool for protection of marine resources and the sustainability of their development.

Over the centuries, however, uses of the oceans have dramatically increased, as has the nature of those uses and their impact on the marine environment. These factors have engendered a strong activism in favour of the creation of marine protected areas (MPAs), including some calls from some sectors for high levels of immediate protection throughout the world's oceans. The scientific, community, logistical and financial elements of successful regulation are often not well understood. These are significant variations from the factors underlying the creation of terrestrial or freshwater protected areas, suggesting at minimum the need to separately consider MPA options and experiences, rather than simply relying on the approaches used for terrestrial protected areas (PAs).

The terms of reference for this paper call for an elucidation of the legal framework applicable to MPAs, and providing examples of countries' successes and failures in adopting and applying legal protections. Its secondary objective is to provide a basis for initial discussions in the Food and Agriculture Organization of the United Nation's (FAO) process in preparation of draft guidelines on the design, implementation and testing of MPAs.

The author has been instructed to focus only on the legal framework, and not to overlap with other information papers, including those on "*Best practices in governance and enforcement of MPAs*" and "*Social, economic and institutional considerations in the design, implementation and success of MPAs*." Given that it is functionally and analytically impossible to discuss any legal framework or consider its adequacy and coverage without consideration of socio-economic, institutional, governance and enforcement factors, the following discussion should not be considered a complete legal analysis of the MPA legal framework, but rather an elucidation of existing documents and experiences, their legal sufficiency and their potential impact.

After a discussion focusing on (i) terminology; and (ii) a general summary of the legal processes by which protected areas and relevant legal frameworks are adopted, this report describes

(1) the overall international framework of binding and non-binding laws and instruments relevant to marine protected areas, and their role in sustainable use of marine resources, considering:

- the nature of each individual instrument's relevance to marine protected areas;
- a collective consideration of "gaps" in the overall framework; and

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[1] This paper was produced for the FAO Expert Workshop on Marine Protected Areas and Fisheries Management: Review of Issues and Considerations (12–14 June, 2006).

[2]The views expressed in this paper are solely those of the author, Tomme Rosanne Young, Consultant, International and National Marine Law and Policy, Tomme.Young@gmail.com.

- currently recognised inconsistencies and "controversies" within the framework.

(2) brief exposition of experiences relating to the development of legislation to implement MPA objectives at national, bilateral and multilateral levels. This discussion will include

- national implementation through various kinds of legislation;
- bilateral and regional agreements that develop multilaterally-recognised MPAs;
- geographic-based conservation systems undertaken through Regional Fishery Management Organizations (RFMOs);

It will identify issues and controversies for each body of information, and will be taken from a range of cases involving developing and developed countries from different regions of the world.

(3) an extraction of useful legal options that have been used or proposed for addressing MPA development, identifying the essential components of such options and any difficulties encountered with the legal options used and how these difficulties could be avoided. This discussion will be focused through the objectives of MPA creation, and will consider

- effective legal options for achieving those objectives;
- the most important areas in which guidance can provide assistance to the legal work involved in MPA development and implementation.

(4) Lessons and recommendations for the process of developing the Proposed Draft Guidelines, based on case examples and research into the practical impacts of the legal/legislative processes described above, including

- "guidance on best practices," based on analysis of legal options described under (3) above, and their use and implementation of MPAs and
- "warning of potential problems and hazards" based on difficulties encountered with the legal options (and other legislative experience) and the author's suggestions about how these difficulties could be avoided;
- the usefulness and essential features of processes for developing effective legislation or regulations for MPAs; and
- an examination of the "causes of success and failure."

(5) Conclusions, specifically providing suggestions regarding topics to be included in a technical guideline, as well as a starting point for discussion of some of these points.

In presenting these issues, this report assumes a general definition of MPA which includes both formally recognised 'protected areas' and other kinds of 'geo-located marine conservation measures' in oceans. It notes that a working definition of MPA could provide a basis for focusing the scope and research of the Guideline process, and that by the time the Guidelines are completed, it will be important to have considered the definition in a more detailed way.

The MPA issue faces very different legal and practical challenges depending on the location of the proposed MPA – which of the legally designated ocean zones (territorial sea, Exclusive Economic Zone (EEZ), Outer Continental Shelf (OCS), high seas and 'the Area') is involved. Similarly, The World Conservation Union's (IUCN) Protected Area categories have proven to be very useful in legal and legislative work (and technical guidelines) regarding terrestrial protected areas, and may provide a framework for MPAs as well, although they may require adaptation to the marine biome.

With regard to the international framework, the report describes numerous international and regional instruments relevant to MPAs. However, few of these documents actually create MPAs, and at present, there is little guidance within these instruments regarding how MPAs could be created, standards for their creation, and other factors.

The international framework's impact, however, differs in its relevance to MPAs within national control (terrestrial sea, EEZ and OCS), as compared with the high-seas and The Area, which outside of national control:

- *Within national seas*, the international framework does not *require* the creation of MPAs, although it does (directly or indirectly) include MPAs and geo-located measures among the mechanisms that can be used to achieve the countries' commitments regarding conservation, preservation and sustainable use of living resources and/or biological diversity. In this connection, the international framework provides many bases of legal support to each country's development of MPAs, and their recognition and acceptance/compliance by other countries.

- *In the high-seas and The Area,* international forums have direct oversight and control. This means that the creation of MPAs in these areas will have to be undertaken through international agreement. Significant international attention is currently focused on these issues, particularly on the possibility of creating one or more international instruments clarifying the processes and standards for international designation of MPAs in the high seas.

At the national level, much of the current MPA work, particularly in developing countries is focused in territorial seas. Increasingly, however, countries are recognising the importance of applying a rationalised set of geo-located protections to their Exclusive Economic Zones (EEZs). As in all legislative development, the key elements of national MPA laws of all types include institutional development and mandate, clarification of relevant procedures (designation of MPAs, licensing and other decision-making, etc.), ensuring that all relevant civil protections and human rights are respected, clearly enunciating the requirements and restrictions imposed by an individual MPA or generally relevant to all MPAs, adopting effective enforcement and administrative measures, and providing a legal basis to enable MPA administration to meet its financial and logistical needs.

Legislative development is not a 'cut-and-dried' process, but rather depends on situational (social, political, institutional, etc.) factors and objectives. In addition, however, it is essential to recognise that the application of these legal measures will be different in oceans than on land, and also will be subject to different practical requirements depending on how far the MPA is from the country's ocean baseline and what capacity the country has to regulate, oversee, implement and enforce legislation in deeper, more remote ocean areas.

1. INTRODUCTION

The development and implementation of protected areas legislation applicable to marine and aquatic areas has been strongly promoted in recent years as a potential tool for the conservation and sustainable use of marine resources including halting the decline in species populations (including the collapse of fisheries) and destruction of critical habitats. Biodiversity objectives would further focus on the desire to ensure that a representative selection of marine ecosystems is conserved, and (known and unknown) species extinctions. In both cases, MPAs are intended as an element of the underlying concept of the sustainable use and development of the natural resources of the seas.

Conservation and sustainable use of biodiversity and natural resources involves a combination of elements, including political will, social/economic acceptance, and enforcement capacity, as well as legislation and institutional development. Without the first three elements, the adoption of legislation will be relatively ineffective to achieve conservation and sustainable use objectives, no matter how strong and binding the legal provisions are. However, where relevant political, social, and practical factors are supportive, implementing/supporting legislation must still be crafted to address these mandates specifically, if it is to be an effective and useful component of the overall process.

This paper, then, cannot provide a template or recommendation for an MPA legislative regime, but provides only one element in that creative process – a description of the legal/legislative tools

available and experiences to date. It will provide ideas about how legislation can be developed to address particular political/social objectives, respond to implementation/enforcement problems, and provide a mechanism for integrating a variety of rights and policies. This paper does not, however, address those connections as they are covered in other resource papers provided for the workshop.

One caveat should be given at this point: This research focuses significantly on recent examples. Governmental options regarding marine conservation have been evolving quite intensively over recent years, reflecting newer views on both the objectives and methods to be used. However, like all legislation, MPA laws often require many years after adoption, before necessary legislation and institutions are in place, much less until it is fully implemented. The author's analysis with regard to best practices, warning signs and elements of success, is thus necessarily based on her experience.

1.1 Organisation and objectives of this report

The terms of reference for this paper call for an elucidation of the legal framework applicable to marine protected areas (MPAs), and providing examples of countries' successes and failures in adopting and applying legal protections. The author has been instructed to focus only on the legal framework, and not cover issues assigned to other information papers, including those on "Best practices in governance and enforcement of MPAs," and "Social, economic and institutional considerations in the design, implementation and success of MPAs," neither of which are available to the author at the time of the final revision of this paper. This discussion should therefore not be considered a complete legal analysis (which must consider practicalities and objectives) of the MPA legal framework, but rather an elucidation of existing documents and experiences, their legal sufficiency and their potential impact.[3]

At the same time, recognising that the audience of this paper is not primarily legal experts, it will not discuss or analyse the underlying legal issues themselves, but will focus on *describing* the legal tools, experiences and needs. Its goal is to provide succinct information into the FAO's process in preparation of draft guidelines on the design, implementation and testing of MPAs (the "proposed Draft Guidelines"). Given the potential importance of MPAs as fishery management tools, this paper focuses to some extent on that role, while addressing the legal aspects relevant to the entire range of objectives to be served by the creation of MPAs.

After a discussion focusing on (i) terminology; and (ii) a general summary of the legal processes by which protected areas and relevant legal frameworks are adopted, this report describes:

- The overall international framework of binding and non-binding laws and instruments relevant to marine protected areas, and their role in sustainable use of marine resources.
- A brief exposition of experiences relating to the development of legislation to implement MPA objectives at national, bilateral and multilateral levels, identifying issues and controversies for each body of information, from a range of cases involving developing and developed countries from different regions of the world.
- An extraction of useful legal options that have been used or proposed for addressing MPA development, identifying the essential components of such options and any difficulties encountered with the legal options used and how these difficulties could be avoided.
- Lessons, recommendations, possible "best practices" and "warning of potential problems and hazards" for the process of developing the Proposed Draft Guidelines, based on case examples and research into the practical impacts of the legal/legislative processes described above.

[3] Given that the author cannot avoid being guided at some level by her experiences in national, regional and global framework development, it is possible that socio-economic, institutional, governance, and enforcement factors impact her statements in this paper. In particular cases she will mention such issues, presuming that they will be covered in other papers.

Each of the above discussions will include suggestions regarding topics to be included in a technical guideline, as well as a starting point for discussion of some of these points.

1.2 Basic terminology and report coverage

Legal systems depend on the existence of a clear understanding of the terms being used. In some instances, terms are generally understood to have a particular meaning that is sufficient to address the particular issues and objectives addressed in the framework. In other cases, an existing instrument may sometimes be used to provide a uniform understanding of the terms of the law, which is appropriate to cover those issues and objectives. Where neither of these exists, it may be necessary to specifically adopt agreed definitions or interpretations, to ensure that the legal framework will have a consistent and usable meaning. Often such specific definitions are adopted on an instrument-by-instrument basis, and later reconciled, whether by agreement or by comparison.

Although a complete set of relevant terminology has not been agreed, two widely accepted existing terminology systems – the zonal designations in the United Nations Convention on Law of the Sea, and the IUCN Categories – may provide a basis for development of agreed terms and concepts.

1.2.1 Delimitation of ocean zones

The international regime of oceans, centring around the UN Convention on the Law of the Sea (UNCLOS)[4], is based on a zonation of the ocean and the seafloor. There are many zone designations, the major elements of which are described below (all of which are based on determination of a 'national baseline' (or 'archipelagic baseline' in relevant situations) through a specified process):

The territorial sea: Extending up to 12 miles past the national baseline (a line generally determined based on the low water line as marked on charts of shoreline areas within national territory[5]), as well as any internal waters and archipelagic waters (where relevant), each country's territorial sea is considered as any other part of its sovereign territory;[6]

The contiguous zone: In a 12 mile 'zone adjacent to the territorial sea', Coastal States may exercise limited powers conferred under UNCLOS, including the right to "exercise the control necessary to… punish infringements… committed within its territory or territorial sea";[7]

The exclusive economic zone (EEZ): the area extending from the outer boundary of a country's territorial sea to a maximum of 200 miles from the national baseline. The specific delimitation of its EEZ must be determined by the Coastal State.[8] Within these confines, the State has particular rights and jurisdiction "governed by the relevant provisions of this Convention"[9];

Special sub-categories for delimitation: UNCLOS also identifies a few other ocean areas, such as "straits used for international navigation";[10] "archipelagic waters" and "internal waters";[11] "enclosed or semi-enclosed seas",[12] which are primarily included for purposes of delimitation and for clarification of rights of innocent passage. Although these designations sometimes give rise to particular glosses on the application of various provisions, they are included within the general concepts of territorial sea, contiguous zone, or EEZ.

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[4] UNCLOS's functional/operational provisions are discussed in Part III of this report.
[5] UNCLOS Arts. 7 and 47.
[6] UNCLOS Art. 2.
[7] UNCLOS, Art. 33.
[8] States may (and some have opted to) designate EEZs smaller than authorized under UNCLOS, or choose not to designate any. Recently some States and commentators have interpreted Part V to enable a similar approach regarding the substantive content of the EEZ declaration, i.e. in declaring its rights over an EEZ, a Coastal State may choose to accept only a part of the rights and jurisdiction authorized under Part V.
[9] UNCLOS Art. 55.
[10] UNCLOS, Arts. 34-45
[11] UNCLOS, Arts. 46-54
[12] UNCLOS, Arts. 123-124

The outer continental shelf (OCS): the seabed extending from the territorial sea to a distance between 200 and 350 nautical miles from baseline. The exact configuration is carefully delimited in UNCLOS, based on a number of factors, including the submerged geology of the continental margin.[13] A country's rights in its OCS focus on the exploitation of mineral and non-living resources as well as the sedentary living resources on or in the seabed;[14]

The 'high seas': UNCLOS uses this term to include everything that is not within any countries exclusive economic zone, territorial sea, internal waters, or archipelagic waters.[15] As such, it may be narrower than the concept that is typically used in other agreements – "areas beyond national jurisdiction" (discussed below);[16] and

The seafloor beyond national OCSs (known in international policy circles, rather opaquely, as "The Area"): The "Area" is defined in UNCLOS to mean "the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction," and is generally thought to include all areas outside of national OCSs (which, as noted above, need not be formally declared).[17]

International objectives with regard to conservation, and legal mechanisms for their implementation will necessarily be different, depending on which of these primary zones is involved.

1.2.2 Protected areas terminology

A second useful framework is the IUCN Protected Area categories (the 'IUCN Categories') are set forth in the 1994 *Guidelines for Protected Area Management Categories* published by IUCN's World Commission on Protected Areas (WCPA). Given its objectives, this paper does not attempt detailed or comprehensive treatment of the categories, but offers a summary supplemented by Annex 1.

The categories were originally intended as a tool for enabling more effective implementation of protected area laws, and management of the protected areas themselves. They have since been recognised as an important mechanism for the development of international and trans-boundary collaboration, and the sharing of information. As a consequence, they have recently been utilised by United Nations Environment Programme (UNEP) and the World Conservation Monitoring Centre as the basis for their work in developing and analysing an international list of protected areas. They have also been recognised in work under several international agreements, including the Convention on Biodiversity (CBD), the World Heritage Convention, and the Ramsar Convention. As further discussed below, there have recently been calls for further evolution of the IUCN Categories to enable their application to protected areas in the marine biome.

The seven IUCN Categories specifically recognise that a protected area may be created for only one particular objective, although also for multiple objectives:

Category I.A Strict Nature Reserve/Wilderness Area (Science/Research)*:* PAs managed for scientific and research purposes;

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[13] If the edge of the continental margin (as technically defined in UNCLOS) is less than 200 nm from baseline, then the OCS can extend 200 nm. If the actual continental margin extends more than 350 nm from baseline, the country's OCS (the area over which it will have undisputed dispository rights) will extend only to 350 nm. If the continental margin is less than 350 nm, but more than 200 nm from baseline, the country's OCS will follow the continental margin. UNCLOS Art. 76.

[14] Specifically, "*Mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species, that is 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."* UNCLOS Art. 77. The country's powers include the construction of pipelines, artificial islands, etc. Rights in the OCS do not confer on the coastal state any power or right with regard to the waters or airspace above the OCS

[15] UNCLOS Art. 86. As noted below, this designation includes waters above the OCSs of Coastal States.

[16] The regime for the high seas (rather than of the seafloor) addresses the issue (and relatively unbounded rights of each country) of laying submerged cables. *Id.*

[17] Art. 2 and Part XI. Article 77.1 specifically states that the country's OCS rights apply irrespective of the existence or lack of a national declaration. However, each state is called to map its OCS on or before 2009 (pursuant to Art. 76.4, extended from 1999). If mapping does not occur, however, this does not affect the country's right to the OCS; however, if any legal question arises, the tribunal deciding the issue will determine the 'map' of the area (for purposes of such decision), presumably based on the standards set out in Article 76.

Category I.B ***Strict Nature Reserve/Wilderness Area (Protection)****:* PAs managed for wilderness protection purposes;

Category II ***National Park****:* PAs managed for ecosystem protection and recreation;

Category III ***Natural Monument****:* PAs managed for conservation of specific natural features;

Category IV ***Habitat/Species Management Area****:* PAs managed for species/habitat/ecosystem conservation through management intervention;

Category V ***Protected Landscape/Seascape****:* PAs managed for landscape/seascape protection and recreation; and

Category VI ***Managed Resource Area****:* PAs managed for sustainable use of natural ecosystems.

Appendix 1 to this Report provides IUCN's full description of each category. The description includes the definition, management objectives, selection guidance, and organisational responsibility.

1.2.3 Defining MPAs – for purposes of the draft guidelines

Recent attempts to specifically define "marine protected area" for purposes of global discussions have not yet been completed. Existing definitions have been challenged in a variety of ways. One of the obstacles to this effort has been the goal of having a single definition, applicable to all areas from intertidal to the high seas, for all purposes.

This paper does not attempt to develop a definition, but presents the two primary definitions considered in recent international negotiations, and identifies some issues for discussion.

Existing definitions

Two starting points for a working definition of MPA have been IUCN (the World Commission on Protected Areas, and the 5th World Parks Congress) and the Convention on Biological Diversity (in the context of its development of its Programme of Work on Marine Biodiversity). Although neither is formally accepted in international processes, both definitions have been heavily negotiated, and represent a useful starting point.

The existing IUCN definition of MPA has not been fully utilised in the IUCN category system. It takes a relatively simple approach:

> *"any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment."*[18]

Work under the CBD has provided a more detailed and somewhat broader definition in connection with its Programme of Work on Marine Biodiversity, which reflects some of the uniqueness of MPAs:

> *"any defined area within ... the marine environment, together with its overlaying waters and associated flora, fauna and historical and cultural features, which has been reserved by*

[18] This definition was adopted by the IUCN General Assembly in 1988, and reaffirmed and amended in 1994. IUCN General Assembly Resolutions 17.38 (1988) and 19.46 (1994). Since its adoption, a variety of aspects of this definition have been challenged, so that at least one alternative definitions have been proposed, replacing the phrase, "*any area of intertidal or subtidal terrain*" with "*any area which incorporates subtidal terrain*". Proposed at the 5th IUCN World Parks Congress in 2003, see "Emerging Issues" – a declaration of WPA-5. The objective of this amendment relates to ensuring that UNEP/WCMC's statistical evaluation of the number of MPAs would not be inappropriately skewed by including coastland PAs which include intertidal, but no fully submerged, terrain.

The IUCN Category System also suggests some elements of a definition. IUCN's World Commission on Protected Areas (WCPA) – the Commission charged with the development and refinement of the IUCN Category system – defines a "protected area" as "an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means."

legislation or other effective means, including custom, with the effect that its marine and/or coastal biodiversity enjoys a higher level of protection than its surroundings."[19]

This latter definition has the additional merit of having been discussed and negotiated by an intergovernmental forum consisting of representatives of sovereign nations. It is notable, however, that the CBD Parties could not agree on this definition as a part of the Programme of Work, ultimately relegating it to a footnote so that the significant efforts of their negotiations would not be lost.

Issues to be considered in adopting a definition

At the opening of the Guideline-development process, it may not be necessary to engage in a detailed word-by-word negotiation of a "legal" definition, however, some general agreement as to the scope of the concept will help in the design of the guidelines and in focusing the work. At this point, it may be useful to adopt an interim definition, and consider some issues that will be relevant to the coverage of the proposed Draft Guidelines, and the eventual negotiation of the final definition.

The differences between the IUCN and CBD definitions cited above, for example, may suggest some possible concerns. For example,

- The IUCN definition is defined by its submerged "terrain" where the CBD definition may apply to *"any defined area within ... the marine environment,"* thereby including fishery-related zones that do not specifically include the sea-floor.[20]
- The CBD definition also contains stronger language recognising varying levels of protection, noting that an area that *"enjoys a higher level of protection than its surroundings"* can be considered an MPA, even where its operation is in the form of resource management, rather than specific 'protection' of any or all components of the area.

A number of other questions, which are more fully described in other sections of this paper may also be relevant to the definition process. For example,

- *Protecting only a particular depth or other volume*. New proposals, particularly in areas beyond territorial seas, are increasingly limited to particular depths (e.g. "the ocean depths below 1000 metres in depth," or "the surface and first XX metres of depth in a particular area", or "all oceans within XX metres of any face or incline of a particular seamount," etc.);[21]
- *The delimitation between 'marine' and freshwater:* Many countries must engage in a significant coverage question relating to whether freshwater and brackish-water areas are considered MPAs, and if not, what is the division between them;
- *Recognising the legal difference among ocean zones.* There are very significant legal and practical differences among MPAs in territorial waters, MPAs in EEZs, and those in areas beyond the EEZs, as well as differences where a protection applies to submerged terrain (seabed beneath territorial seas, OCS and 'the Area.') In particular, it is currently very difficult to determine what might constitute *"legislation or other effective means"* with regard to the high seas and the Area. Hence, it may be useful to consider the possibility of varying the definition for each maritime zone.
- *Nature of protection:* In a number of instances, protection of species of limited biogeographic ranges may often operate to create a *de facto* protected area – a practice that might be utilised

[19] CBD Conference of the Parties, Decision VII/5, at note 11.

[20] Noting that there are various types of submerged lands, this point may be particularly important, where, for example, the area in question involves waters considered to be in the 'high seas' but submerged terrain that is a part of a country's OCS.

[21] Only the first of these examples have been formally adopted by any document reviewed by the author (discussed in III.B.3, below). However, the author has participated in negotiations and discussions proposing or considering all of the above options. Both the CBD and IUCN definitions speak in two dimensional terms ("any area") suggesting that an MPA should protect it's the entire column within the designated coordinates from substrate to overlying air space.

in the context of an MPA.[22] Similarly, particularly where full biological data is not available, the range of alternate approaches to formal legislative protection may require fuller examination.

- *Competence/capacity for implementation and enforcement:* This issue, addressed in another paper, is essential to successful MPA legislation and affects both definition and legal issues.
- *Socio-economic and political support, custom and practice:* This issue, addressed in another paper, is also critical to successful MPA legislation, and may affect definition and law.

Obviously, the foregoing are not the only definition questions that should be considered, but may provide a starting point for discussions. A related question – the designation of standards for MPAs creation[23] – may also impact and be impacted by the definition question. More comprehensive international work on this issue is presently commencing without specific mandate,[24] indicating that a need for some definitional work may be somewhat urgent.

1.2.4 Defining MPAs – working definition used in this paper

For purpose of this Report, the author has adopted a working methodology (and informal scope) that attempts to include (or at least survey) all types of geo-located protections within the scope of its analysis of the legal development of MPAs. For purposes of this study the author has surveyed a wide range of individual measures directed at specific activities, uses and biomes, as well as more general conservation measures.[25]

However, it is clear that for purposes of allowing legal discussion to go forward in a way that is not meaningless, the term "marine protected area" cannot be synonymous with "marine regulation," despite the fact that the Workshop tentatively used a very broad initial working definition of "marine protected areas as fishery management tools."[26] The Workshop's definitional decision is based on other practical factors, however, when applied to this report, such a definition would mean that all marine instruments or regulations of any sort, except those that are global in scope, are "MPAs as fishery management tools."[27]

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[22] For example, the protection of tubeworms, which are believed to be endemic only to hydrothermal vents, might operate to protect such vents without necessitating the adoption of a protected area based on the coordinates of each vent field.

[23] Recent ongoing efforts for the creation of MPA designation standards at international, collaborative and national level. These efforts include work under the OSPAR and HELCOM conventions, and refer to similar guidelines developed in other forums, including CCAMLR, the Barcelona Convention, and the WHC. These standards discussions include both scientific and political concerns (See Korn, H., et al, Platzoeder *The United Nations Convention on the Law of the Sea and Marine Protected Areas on the High Seas"* In Proceedings of the Expert Workshop….. Vilm. 2001, considering whether the site can be protected under existing instruments, before designating it as an MPA, as a last resort.

[24] The CBD considered this in its most recent COP, and several international meetings on this point are planned. See, generally CBD-COP decision VIII-24, para. 29 *et seq.* Other detailed work has been undertaken for IMO's PSSA process.

[25] Given that the author was instructed to review and consider legislation and legal instruments at the national regional and global levels, it is not possible to make any claim that this review comprehensively covers all 'geolocated regulatory marine measures' at any level. However, the breadth of legislation that has been collected and briefly reviewed in the preparation of this report is demonstrated by Appendix 2.

[26] See, Key Points from the FAO Workshop on the Role of MPAs in Fisheries Management (Rome, 2-4 June 2006).

[27] Essentially, all regulation of marine areas is geographically bounded by the specific jurisdictional boundaries of the regulating entity (except where the regulation is global in scope). Thus for example, a country's national legislation is bounded by the outer limits of its territorial sea, contiguous zone, EEZ, and/or OCS as relevant; measures adopted by an RFMO or Regional Seas Convention are bounded by the instrument's jurisdiction. Virtually every marine regulatory measure limits or restricts activities in some way. Virtually no provisions are written to eliminate controls or allow indiscriminate activities that may cause destruction. Taken together, these facts would make all marine regulatory provisions (except those that are completely international) 'MPAs as fishery management tools' under the interim definition.

For this reason (and based on instructions and terms of reference)[28] this paper will not attempt to apply a single generic term for all of the different kinds of legal measures that would be encompassed by the current working definition. Consequently:

- This paper will use 'marine protected area' to refer to permanent designations of particular areas as MPAs (or using another term or concept recognised as a reference to "protected areas," such as park, conservation area, nature reserve, wilderness area, protection zone,' 'sanctuary,' species management area' or 'protected landscape'). In general, it will assume that an MPA is documented by a formally agreed measure of some sort, whether in law, as a 'soft' or voluntary code by a governmental or other organisation, or otherwise agreed.
- It will use the term "geo-local (or "geolocated") protective measure" when speaking of activities that are more generally thought of as 'natural resource management,' when those activities are specifically bounded zones within a larger jurisdictional area (i.e. where the limit on the measure is smaller than the entire geographical area under the relevant governmental or intergovernmental entity's jurisdiction.[29]

2. INTERNATIONAL LEGAL FRAMEWORK

The terms of reference for this paper, call for a review of the overall international framework of binding and non-binding instruments relevant to MPAs, and their role in sustainable use, considering:

(a) a very brief summary of the nature of each individual instrument's relevance to marine protected areas (*i.e.* not the entire scope of the instrument or the framework it creates[30]);
(b) legal/legislative gaps in the overall framework's provision for MPAs; and
(c) currently recognised inconsistencies and controversies relating to MPAs.

Parts 2.1 and 2.2 summarise of the primary relevant international and regional instruments and bodies, noting only their direct relevance to MPA issues, including their ability to support geolocated marine protective measures, as well as the particular gaps and controversies relevant to them.[31] Part 2.3 considers these same points across of the overall international legal framework.

2.1 International and regional agreements and processes

With the objective of identifying relevant instruments at the international level, and highlighting their "relevance, gaps, and inconsistencies," this analysis is divided into four categories – marine agreements, conservation (biodiversity) agreements, integrating instruments and processes, and regional instruments related to marine resource management/protected areas.

2.1.1 Marine agreements and processes

Marine law is often a relatively independent area of law. Particularly at the international level, marine lawyers work in separate courts, negotiations and academic institutions and publications, with

[28] Following submission of the rough draft of her report, the author was instructed not to look at general marine conservation and sustainable use laws, but instead to focus on specific measures directed at marine protected areas. As a consequence, this paper limited the scope of its discussion to a range of measures that is significantly more limited than the current working definition of "MPAs as fishery management tools."
[29] If an entire ocean, for example, is covered by a particular measure, it seems inappropriate to view that measure as 'special protection.' Similarly, one who lives in a country in which it is illegal to steal generally does not consider himself to be specially protected against thievery.
[30] The Specialised Bibliography, lists numerous papers providing varying descriptions, and legal and non-legal opinions concerning the scope and broader conservation elements of these instruments.
[31] This summary follows and is based on a review of relevant international instruments listed in Appendices 2 and 3, including both binding and non-binding (conventions, protocols, declarations, guidelines, principles and other instruments). Only a few (thought to be the 'most relevant' instruments) have been summarized below.

relatively little input from other fields, including environmental law. Marine instruments are often relatively comprehensive in coverage, sometimes without significant recognition of other instruments.

United Nations Convention on the Law of the Sea

The UN Convention on the Law of the Sea (UNCLOS) is a detailed and well accepted Convention comprehensively addressing the use and conservation of the ocean and its resources. UNCLOS embodies the traditional notion that some ocean areas are under national jurisdiction or oversight, while others are beyond the control of any single State – open to all States, whether coastal or land-locked. Beyond the limits of national EEZs and/or in *the Area*, UNCLOS recognizes "traditional high seas freedoms" (of navigation, overflight, cable laying, fishing and scientific research, etc.). Within EEZs, it recognises various levels of national controls, but imposes limitations on each coastal state's rights to restrain reasonable use of ocean areas within their jurisdiction.

(a) Relevance to marine protected areas

UNCLOS's primary obligations relating to conservation and management of oceans and the marine environment (and/or living resources)[32] balance the "freedom of the high seas" (in particular regarding high-seas fisheries) with the shared obligation of all countries to protect against the destruction of marine species and ecosystems, and the collapse of shared fisheries. Parties have specific obligations to protect the marine environment, to conserve natural resources, and to cooperate with other States for conservation purposes.[33] The provisions setting out these obligations include references to the declaration of specific areas in which certain activities (fishing, shipping, activities causing pollution, marine research) may be prohibited or restricted, for the purposes of marine resource protection, conservation and/or restoration. These provisions are different, for each category of ocean zone.

- Territorial seas: UNCLOS does not specify particular requirements applicable to each country regarding conservation of its territorial sea. Each country has full sovereign rights over its territory, and UNCLOS presumes they will use these powers to control, protect, conserve and restore the marine resources and ecosystems within their Territorial Seas. It does not require MPAs, but notes States' authority to create and enforce them.[34]
- EEZs: UNCLOS mandates are much more strongly expressed with regard to the EEZ. States are required to control the 'allowable catch of the living resources' within their EEZs, and prevent 'over-exploitation' by imposing conservation and management measures (including through RFMOS and other organizations).[35]
- OCS, UNCLOS does not specify conservation obligations, presumably again because the OCS remains within the sovereign jurisdiction of the coastal state.[36]
- High seas: All waters beyond the EEZ, (including the water column above the OCS) are governed by more specific international environmental requirements. All States (individually or

[32] Terminology can sometimes be confusing. UNCLOS uses the two primary terms – "marine environment" and "living resources" (sometimes referred to in slightly different ways, such as "natural resources, whether living or non-living") – but does not define either term. Informal and intermediate definitions and examination of usage have given some indicators of possible definitions. For example, the ISA Assembly has stated a definition of "marine environment" and "serious harm to the marine environment," in its July 2000 *Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area.* It is not clear whether the various chambers of the UNCLOS Tribunal, and/or plenipotentiary representatives of its members will adopt these definitions, however, so they must be thought of as "interim." These various sources suggests that "living resources" may be comparable to the CBD term "biological resources," in some cases, but is often used in a more limited way – to describe commercially utilized resources (especially fisheries), where "marine environment" is given a very general meaning – essentially equivalent to "the ocean and submerged geography."

[33] UNCLOS, Arts. 61, 118 and Part XII, especially Arts. 192 and 237.

[34] UNCLOS, Arts. 21 & 22. Similar power to regulate is specifically specified for other special areas within territorial seas. *See, e.g.* Arts. 42.1 (straits used in international navigation), and 54 (archipelagic waters).. Although required to allow 'innocent passage' (UNCLOS Articles 17-26), states can designate shipping lanes, which may also support these purposes.

[35] UNCLOS, Articles 58 and 61-68.

[36] UNCLOS, Part VI, Articles 76-85.

in cooperation with others[37]) must protect and preserve "rare or fragile ecosystems," the habitats of "depleted, threatened or endangered species" and "other forms of marine life."[38]

- The Area UNCLOS created a special regime applicable to the seabed beyond national OCSs, which was quickly supplemented by a new sub-agreement (the Part XI Agreement). UNCLOS gives the International Seabed Authority (ISA) responsibility for management and disposition of the mineral resources of The Area, empowering and mandating it to take measures to ensure effective protection of the marine environment, including flora and fauna, in connection with the various uses of the seabed beyond OCSs.[39]

Perhaps most important, the Convention requires other States to promote compliance with measures for marine conservation, whether they have been developed by a single state, a small group of States, an RFMO or other international cooperation mechanism, or the entire global community.[40]

(b) "Gaps" and limitations of coverage of marine conservation and MPAs

UNCLOS is intended to be an evolving framework, which will continue to develop as necessary to address needs, usages, and other changes. This suggests that every aspect of oceans and of the protection, preservation, sustainable utilisation and restoration of the marine environment is covered by UNCLOS's general provisions and the general obligations of parties.

However, on some issues UNCLOS provides a more specific detail, providing a 'regulatory' level of guidance, sufficient to enable immediate implementation measures. Where this level of detail is not provided, the UNCLOS framework is designed to enable the international community to develop it through mechanisms such as national implementation, regional cooperation, soft-law and voluntary principles, and/or international negotiations, both binding and non-binding. Some of the issues on which UNCLOS provides little or no guidance or direct provision include:

- protected areas in the 'high seas'; and
- conservation and management of the living resources of The Area.[41]

Although these matters are within overall scope of UNCLOS, the lack of specifics has been noted. International policy developers are currently considering whether there is a need to address them with negotiated policy instruments at this time, and if so, what type and level of documents are needed.

(c) Currently recognised inconsistencies and "controversies"

With regard to the application of UNCLOS to MPAs, the United Nations General Assembly (UNGA) has been active through a working group on conservation of the high seas (discussed in 2.1.3 below). It has also been proposed that this issue should be a part of the wider consideration currently being given to the creation of a new 'implementation agreement" under UNCLOS.[42]

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[37] UNCLOS, Articles 117, 118, 193, 194.4 and (viz RFMOs) 118 (final sentence), 119.1(a) and 119(b).
[38] UNCLOS, Articles 192 and 194.5
[39] UNCLOS, Articles 145, 208, and others.
[40] UNCLOS, Part VII, Section 2, Articles 116-120.
[41] Although giving the ISA a clear mandate relating to the "marine environment," however, neither UNCLOS nor the Agreement Relating to the Implementation of Part XI of the Convention (the "Part XI Agreement) specifically discuss any particular responsibility relating to benthic marine life of the Area. Hence, it is not clear who is responsible for these resources, nor which elements of UNCLOS's regime shall apply to them.
[42] The relevance of MPAs to this process was discussed in detail in CBD COP-8 and the Ad-hoc Working Group on Protected Areas held in preparation for that meeting. See CBD COP decision VIII-24 at para 42.

UN Agreement for the… Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks ("Fish Stocks Agreement" or "FSA")

This Agreement aims primarily at applying natural resource management to the objective of ensuring the "long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of the Convention."[43]

(a) Relevance to marine protected areas

In conjunction with its basic mandate, the FSA expressly calls for "conservation and management measures[44] to ensure the sustainability of covered species stocks. It is generally assumed that the direct or indirect designation of special areas in which activities are controlled is one of the potential measures that may be relevant. [45]

(b) "Gaps" and limitations of coverage of marine conservation and MPAs

Within the scope of its mandate, the FSA does not appear to have any primary gaps regarding its conservation objective. However, recently some authors have claimed that its mandate is too narrow, and recommended reopening the negotiations for the purposes of amending the FSA to cover all fisheries in the EEZs and beyond.[46] Given that the FSA has only been in force for three years, and that its negotiations (particularly its scope) were heavily negotiated over many years, this recommendation may not be workable,[47] but does suggest the level of urgency that some commentators place on international management of high-seas fisheries, in that they are willing to risk the FSA to achieve it.

(c) Currently recognised inconsistencies and "controversies"

Current discussions relating to high-seas and EEZ fisheries revolve significantly around the application of the concept of "precaution" to fisheries management, and the extent to which lack of knowledge can be used as a justification for failing to impose or enforce controls, or for setting high catch limits. The FSA requires both the use of best scientific evidence available[48] and the application of the precautionary approach[49] to protect biodiversity in the marine environment. Recent studies have begun to demonstrate the difficulties inherent in applying the precautionary approach to natural resource management decisions, and indicate a need for further international efforts to clarify its meaning in this context.[50] These studies note that the issue of what is 'precautionary' varies according to what kind of action is being taken,[51] so that the adoption of catch limitations will utilise the principle entirely differently from the designation of MPAs. In the context of protected areas, precaution is relevant across the range of the MPA processes – including the selection of proposed MPAs, zoning, planning, licensing/permitting, and other actions.

International Maritime Organisation and Associated Instruments

The International Maritime Organisation (IMO) is the repository and oversight body responsible for a number of specialised instruments primarily focused on shipping and traditional aspects of maritime

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[43] FSA, Art. 2, and see Article 5.

[44] For these purposes, "conservation and management measures" means measures to conserve and manage one or more species of living marine resources that are adopted and applied consistent with the relevant rules of international law as reflected in the Convention and this Agreement. FSA, Art. I(b).

[45] FSA, Articles 5 (a), (b), (c), and (e); and see Allison, G., *et al.* (1998) restating in the marine context the general assumption of the relationship between PAs and conservation.

[46] *Especially,* Kimball, et al., 2005, *but see also* Thiel, H., 2003.

[47] Given the nature of scope discussions the FSA negotiations, it is likely that work on a broader instrument covering fisheries that are not "straddling or highly migratory" would have to be commenced under a separate instrument. Such an approach would have the value of keeping the FSA in force, and keeping its implementation on track, during the new negotiations.

[48] FSA, ART 5 (b) and (c)

[49] FSA, ART 5 (d). *See also* FSA, ART 6 and Annex II which contains a lengthy and detailed analyses of the manner in which precautionary concepts should be applied

[50] Cooney & Dickson, 2005.

[51] Id., and see Bartley, D.M. and D. Minchin (FAO technical Paper - T350/2); and Caddy, J., 1998.

law (such as the safety of human lives at sea, salvage, and piracy). Among its instruments, a number have focused on dumping and pollution issues and other activities and areas in which shipping and maritime traffic can have an impact on the marine environment.[52]

(a) Relevance to marine protected areas

Predictably, the IMO's approach to environmental protection includes many provisions for the designation of specific areas – including both areas which must be protected and areas which are specifically usable as dumping sites or for purging ballast. These designations may be useful, if they can be integrated into national and international processes of MPA creation.[53]

IMO's suite of geo-located protective measures include a range of different "special areas," within which particular kinds of discharges and emissions (oily wastes, "noxious liquid substances," garbage, and air pollution) are forbidden.[54] These provisions are rather narrowly focused.[55] A second type of measure, the "particularly sensitive sea area" (PSSA),[56] is much broader in scope, mandating that all vessels undertake a list of protective measures, whenever they are in an area that has been designated as a PSSA. Because the PSSA concept is not derived from a single instrument or specific international agreement, it has developed in a flexible, still-evolving manner.

(b) "Gaps" and limitations of coverage of marine conservation and MPAs

As the IMO is not mandated to focus on marine conservation issues, it is probably inappropriate to speak of MPA-related "gaps" in its coverage. However, at present, IMO's focus on maritime traffic is not well integrated with other international marine law. For example, the IMO may chose not to grant Special Area or PSSA status to an EEZ area that a country has designated as an MPA.[57]

(c) Currently recognised inconsistencies and "controversies"

A number of countries have strongly promoted the use of the PSSA designation for conservation, including as a tool for protecting very large ocean areas. However, as demonstrated by recent proceedings in the IMO, [58] these proposals have been controversial for two opposing reasons. On one side, many commercial enterprises and their advocates note that the PSSA mechanism is still evolving, and its guidelines are in the process of revision/have been newly revised through an international process. As a consequence, the PSSA tool is still too rigid, and does not contain any basis for flexible application to individual circumstances of an area or activity. One the other side, it has been noted that the PSSA designation is not a mandate for conservation. However, if used in conjunction with other conservation systems, the PSSA might have a significant role in providing the linking/liaison mechanism between environmental/conservation action and IMO's shipping oversight.

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[52] *Specifically,* the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto ("MARPOL 73/78"); International Convention for the Control and Management of Ships' Ballast Water and Sediments (2004, not yet in force); Convention for the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) (London, 1972); and particularly the IMO Revised Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas, IMO Assembly Resolution A. 982 (24) (Adopted 2005)

[53] The designation of dumping areas, ballast water purging areas, etc., can operate as a support to MPA objectives, particularly where the law specifically requires that these activities may *only* be undertaken in the designated areas.

[54] *See*, MARPOL 73/78, Regulation 10 of Annexes I, II, V, and VI. Some Special Areas are very large. For example, the Baltic, Black and Mediterranean Seas, as well as the Gulf of Aden, "Gulfs", Red Sea, "Antarctic Area, North West European Waters, and Oman sea have all been designated as Special Areas under this provision.

[55] At present, a separate "Special Area" designation must be separately proposed for each type of activity or discharge, even if they all cover the same area.

[56] The PSSA concept has been derived indirectly from multiple sources within IMO instruments, and has been specifically referenced in UNCLOS, Agenda 21 and processes under the CBD. Article 211 of UNCLOS is generally thought to reference the IMO system, especially MARPOL 73/78.

[57] *See* e.g. Chevalier, C. (2004) describing denial of PSSA status in connection with protection of the Mouths of the Bonifacio Strait.

[58] *IMO,* Western European Waters PSSA proposal (initially proposed 2003, reviewed by the legal commission 2005, reconsidered 2005).

IMO is currently re-developing guidelines for designation of PSSAs, under which PSSA designation will become less rigid, and thus more easily adapted to particular needs of individual areas.

FAO, and the Code of Conduct for Responsible Fisheries

The UN Food and Agriculture Organisation (FAO) has long recognised the intrinsic linkage between conservation and natural resource management, and the achievement of the Organisation's primary mandates relating to food, agriculture, fisheries, and forestry. Its work provides strong examples of the value of non-binding and voluntary instruments, including specifically the Code of Conduct on Responsible Fisheries (CCRF),[59] which focuses on the balance between "the biological characteristics of the resources and their environment and the interests of consumers and other users."

Although not binding, the Code has had a significant impact on the growing trend toward coordinated management and the promotion of sustainability in, fishing activities in all ocean areas. The CCRF does not specifically discuss geographic-based protections; however, it focuses on the needs for conservation, restoration and sustainable use of ecosystems, commercially-fished species, and species that are not commercially fished.[60] As noted, protected areas are thought relevant (and often necessary) to achievement of these objectives.

Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas

Designed to help prevent "re-flagging" vessels as a means of avoiding conservation responsibilities, the Compliance Agreement is intended to focus on compliance with "conservation and management measures." Its primary direct contribution to international conservation is the creation of a potentially valuable tool for enforcement. Specifically, it creates a comprehensive, centralized database on vessels authorized to fish on the high seas, called the Vessel Authorization Record (VAR). The VAR contains compliance information relating to fishing requirements, and may also potentially apply to MPAs.

International Whaling Convention

The International Whaling Convention (IWC) was originally created as a tool for management and conservation of whale stocks – i.e. as a single-genus sustainable use convention, essentially an RFMO.[61] The IWC has created two whale sanctuaries (single-species-oriented protected areas), covering very large areas.[62] Unfortunately, the effectiveness of these sanctuaries could not be well tested or analysed, since the IWC's natural resource management activities have been effectively curtailed by the lengthening "pause" in commercial whaling which began in 1985/86 and is now in its 21st year, thus becoming an effectively permanent moratorium on legal whaling in the high seas.[63]

Global Programme of Action for Protection of the Marine Environment from Land-based Activities

The Global Programme of Action for Protection of the Marine Environment from Land-based Activities (GPA) is a comprehensive, multi-sectoral instrument reflecting the desire of Governments to strengthen the collaboration and coordination of all agencies with mandates relevant to the impact of land-based activities on the marine environment, through their participation in a global programme. In

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[59] The Code "calls on States, International Organizations, whether Governmental or Non-Governmental, and all those involved in fisheries to collaborate in the fulfilment and implementation of the objectives and principles contained in this Code;" (adopted by the Rome Declaration on the Implementation of the Code of Conduct For Responsible Fisheries, FAO Ministerial Meeting on Fisheries Rome, 10-11 March 1999, para 2)

[60] CCRF Articles 6.1, 6.2 and 6.8. The CCRF also notes information sharing, and integration with other programmes and management planning, as critical elements of conservation. CCRF Articles 6.2 and 6.9.

[61] RFMOs are discussed in III.B.2, below. The author offers her apologies to anyone offended by the inclusion of whaling as a 'fishery,' but uses the term in its sense of 'commercial extraction of living resources,' not suggesting that whales are 'fish.'

[62] The Southern Ocean Sanctuary (SOS, established 1994), includes all ocean areas below the 60th-S parallel. The Indian Ocean Sanctuary (IOS, established 1979) includes the entire Indian Ocean, specified by 'metes and bounds.

[63] Although a few countries continue to engage in whaling pursuant to limited exceptions to whaling ban, including aboriginal subsistence whaling, whaling activities for scientific purposes, and activities within a country's jurisdiction. In its most recent meeting the International Whaling Commission adopted a resolution stating that the moratorium "was adopted as a temporary measure, and is no longer necessary." (IWC *St. Kitts and Nevis Declaration*, adopted by the 58th Meeting of the IWCommission, June 2006).

addition to pollution issues, the GPA also addresses physical alterations of the coastal zone, including the destruction of marine habitats. The GPA specifically discusses and encourages the recognition of protected areas,[64] and references the need for attention to 'areas of concern' within the coastal zone. It also notes the value of declaration of zones, including both zones that must be protected, and those that serve as the only permitted area for certain activities (e.g. dumping). The GPA encourages cooperation through international instruments and other mechanisms.

Labelling and certification

Up to now, the implementation of "dolphin-safe" and other kinds of certification have generally been undertaken through national law and commercial mechanisms. Currently various approaches have been examined for improving the reach of these measures, including the creation of a new international instrument, the Agreement for the International Dolphin Conservation Programme. One of the primary tools that is used in the certification of tuna and other commercially harvested living marine resources involves the certification of the fishery itself – in some senses, the creation of an MPA focused on restricting the nature of fishing processes, and in some cases the volume of fish taken. Certification approaches represent a relatively new potential mechanism that can be used with other tools and approaches to promote conservation and sustainable marine management.

2.1.2 Conservation and protected-area agreements

A number of conservation instruments are also directly relevant to the marine biome and MPAs.

Convention on Biological Diversity

The stated objectives of the Convention on Biological Diversity (CBD) are (i) conservation of biodiversity, (ii) sustainable use of components of biodiversity, and (iii) equitable sharing of benefits from use of genetic resources.[65] It includes both terrestrial and marine resources and ecosystems.

(a) Relevance to marine protected areas

Protected areas, broadly within the term "*in situ* conservation measures"[66] are specifically addressed under the CBD as a primary tool for ensuring that valuable biological resources are not lost to extinction through abuse, overuse, or unintentional neglect.[67] The CBD clearly emphasises that such designations are tools for such protection, rather than *per se* objectives that can be satisfied by simply gazetting the area as a "paper park."[68] The CBD envisions an integrated, comprehensive approach to conservation and sustainable use. Hence, Parties are required to prepare and update inventories of biological resources as a basis for planning and decision-making.[69]

The Convention's scope specifically includes marine areas within the limits of national jurisdiction, *and* also extends to processes and activities undertaken by a country or by persons or vessels under its jurisdiction in the high seas and the Area.[70] It has recognised marine conservation as a priority since its second year, when its Contracting Parties adopted the 1995 Jakarta Mandate on marine and coastal biodiversity, including the establishment of marine and coastal protected areas.[71] Most recently, the CBD's detailed programmes of work on marine and coastal biodiversity (adopted 1998 and 2004) and on protected areas (adopted 2004 and 2006) provide guidance to Parties in national legislation, as well as regional measures and actions in or impacting areas beyond national jurisdiction.[72]

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[64] GPA, §§ 152(d) and 153(a).
[65] CBD Article 1.
[66] CBD., Art. 8.
[67] CBD, Article 8
[68] CBD, Art. 8. For a discussion of the importance of a "system" of protected areas, as opposed to former "token" approaches, *see* Global Biodiversity Outlook (CBD, 2001) at 131.
[69] CBD, Arts. 6 and 8.
[70] CBD, Articles 4, 5 and 22.2.
[71] CBD COP-2, Ministerial Statement.
[72] CBD Decisions VIII-24, /CBD/COP/7/5 (2004) (Protected Areas – this decision specifically addresses MPAs both within and outside of national jurisdiction); VII-5, UNEP/CBD/COP/7/5 (2004) (Protected Areas. This decision incorporates and

(b) "Gaps" and limitations of coverage of marine conservation and MPAs

Legally, the CBD is designed to operate through national implementation. As a result, its application through regional implementation mechanisms was strongly opposed early on, and even today is rarely directly addressed. Consequently, most CBD work on MPAs has focused on activities which a particular country may undertake. The Convention does not specifically discuss bi- or multi-laterally designated MPAs (or recommend mechanisms for the creation of) MPAs beyond national jurisdiction.

(c) Currently recognised inconsistencies and "controversies"

The primary MPA coverage issue for the CBD has been the relationship between the CBD and UNCLOS. Although the CBD specifically requires parties to "implement this Convention consistently with the rights and obligations of States under the law of the sea,"[73] the two international processes have an evolving relationship, particularly with regard to MPAs and other marine conservation issues. Most recently, in CBD COP-8, the Parties generally agreed that the primary international work on this issue will be ongoing through the UNGA (UNCLOS), with the CBD providing inputs and advice based on its specialised competence in the areas of conservation, protected areas, and biodiversity.[74]

World Heritage Convention

The World Heritage Convention (WHC), was created to ensure the protection and safeguarding of specific areas of 'international importance.' It is a list-based agreement in which sites are nominated (by or with approval from the government of the country in which they are located) to an international Commission which decides, based on detailed criteria, whether they may be added to the list of "World Heritage Sites." The Convention also mandates international oversight of listed sites (based on its Operational Guidance and other principles) to ensure that the area's condition does not decline. Originally, a country's incentive to list a site was partly financial – access to the "World Heritage Fund." Over the years, as inflation has decreased the importance of the Fund, a new incentive has taken its place: Once listed, a PA may use the World Heritage designation as a kind of certification or "brand," which has proven to increase the number of visitors to the site.

(a) Relevance to marine protected areas

Marine sites, particularly those in coastal waters or within relatively short boating distances of shore, have been designated as WH Sites. The most famous Marine WH Site is probably the Great Barrier Reef World Heritage Area in Australia, which is generally part of[75] the Great Barrier Reef Marine Park – and until this year, the largest MPA in the world.[76] The World Heritage Committee has drafted specific criteria for MPAs, although these criteria have not yet been formally adopted.

(b) "Gaps" and limitations of coverage of marine conservation and MPAs

The main limitation of the WHC's coverage relates to its objectives. Specifically, the WHC is not a 'protected areas convention,' *per se*, but rather is designed to create incentives and mandates for a

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surpasses earlier work on PAs); CBD Decision VII-28, UNEP/CBD/COP/7/28 (2004) (MPAs). In 2005, a CBD Working Group began to try to address the question of marine protected areas. Although unable to resolve insoluble issues raised, the (partly) bracketed report indicated agreement regarding the urgent needs of coastal and EEZ areas. Report of the First Meeting of the Ad-hoc Open ended Working Group on Protected Areas, Annex 1, para. 1/1.l (Montecatini, 20 June 2005) UNEP/CBD/WG PA/1/6

[73] CBD Art. 22.2

[74] CBD COP Decision VIII-24 at 42.

[75] The exact boundaries of the Great Barrier Reef WH Site and the Great Barrier Reef Marine park are not the same. Approximately 10% of the WH Site is outside of the Marine Park area, and is managed by provincial authorities.

[76] The United States government has declared approximately 84 million acres comprising the remote "Northwestern Hawaiian Islands" and surrounding submerged lands to be a "national monument" under one of the United States's protected area legislative authorities. The area is said to be the largest MPA in the world. The United States did not cite particular threats as the reason for the designation, suggesting that its object is to protect a relatively pristine area.

specific type of protected areas – natural and cultural areas of international importance *that are or can be sites of tourism and similar uses*.[77] Hence, it is designed to address protected areas that will be used by the public. This means that, as a practical matter, the WHC mechanisms may not be meaningful for MPAs beyond the reach of tourist day-trips, nor MPAs intended to control commercial harvesting. In addition, the WHC is legally limited to the declaration of areas within national jurisdiction, and imposes numerous rights and responsibilities on the country or countries in which the WH Site is located. With regards to ocean areas beyond national jurisdiction, no country, organisation or other international entity is currently qualified or designated to act as the "country in which the Site is located" for these purposes.

UNESCO Convention on the Protection of the Underwater Cultural Heritage

Although not yet in force, this Convention is directed to protection of resources such as wrecked, vessels and other vehicles, as well as structures, artefacts, human remains, and prehistoric objects.[78] It also seeks to control salvage and other private actions involving such areas.

Agreement Concerning the Shipwrecked Vessel RMS Titanic

This new agreement (also not in force) is essentially a very specific variation on the UNESCO Convention on the Protection of the Underwater Cultural Heritage – focusing solely on protecting the wrecked Titanic in its final resting place at the bottom of the Atlantic.

(a) Relevance to marine protected areas

The RMS Titanic Agreement calls on Parties (individually or collaboratively) to take "all reasonable measures" to ensure that all artefacts recovered from the *Titanic* are conserved and curated, and to control or oversee the actions of vessels under their registry for this purpose.[79] It thus creates a kind of limited protected area on the seafloor, in which certain kinds of activities are restricted.

(b) Currently recognised inconsistencies and "controversies"

This RMS Titanic Agreement represents a new way to take conservation action in the high seas and The Area. Rather than holding a broad international negotiation (an expensive process that can take many years), the negotiations were limited – involving only the United States, United Kingdom, France and Canada. The Convention will enter into force after only two countries have agreed to and implemented it, however, its provisions are only binding on those countries which are signatories. In essence, the ratifying States agree that, they will consider the area to be protected area and govern their citizens and vessels accordingly. The Parties then hope and expect other Parties to subsequently join in these measures.

Convention on International Trade in Endangered Species of Fauna and Flora

Although not direct addressing protected areas or MPAs, the Convention on International Trade in Endangered Species of Fauna and Flora (CITES) has relevance to conservation beyond national waters. Functionally, CITES combines properties of a conservation convention and an "international trade agreement," closely regulating international movement of endangered and threatened species, or their parts and derivatives (including commercial products). CITES focuses significant attention on the listing of protected species, and efforts (some geo-local[80]) to ensure their protection.

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[77] Although the text does not specify tourism or other use, it is only sites which have or hope for touristic visitation that are benefited by WHC designation. Generally, countries do not give international bodies powers to intervene in what would otherwise be a matter of national sovereignty, and commit to substantial externally overseen requirements, unless they can see some particular value to themselves.

[78] Underwater Cultural Heritage Convention, Art. 1(a).

[79] Agreement Concerning the Shipwrecked Vessel RMS Titanic, Article 3.

[80] *See, eg.,* the CITES "Significant Trade" processes for, for example, sturgeon and paddlefish. To date, no geo-local arrangements have been proposed under this mandate relating to ocean areas.

(a) Relevance to marine protected areas

CITES specifically requires Parties to monitor and regulate the movement of species that are "introduced from the sea" (beyond national jurisdiction).[81] Implementation of this provision demonstrates some of the problems involved in implementation of geo-located resource management requirements, since this provision can only be implemented by knowing (or accepting the vessel operator's statements about) where the species was harvested.

(b) "Gaps" and limitations of coverage of marine conservation and MPAs

Within the past five years, the CITES COP has listed a number of nationally and internationally fished commercial marine fish species as needing trade control (CITES Appendix 2). CITES's parties have specifically recognised that these listings will only be a positive contribution to sustainable ocean management, if there can be a high level of cooperation among parties and with FAO.

Convention on Migratory Species

Like CITES, the Convention on Migratory Species (CMS) focuses on the listing of particular species (or groups of species), in this case focusing on those that are both migratory and endangered. The primary requirement imposed on Parties with regard to these species is to take measures to protect manage and conserve their habitats.

One mechanism used by CMS is the development of specialised agreements (sometimes non-binding) among the Range States of a particular listed species, under which they agree to management plans for the species' protection. Several of the Agreements developed to date address ocean species, including the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS);[82] the Agreement on Small Cetaceans of the Baltic and North Seas (ASCOBANS);[83] Trilateral Wadden Sea Collaboration,[84] the Memorandum on the Conservation of Sea Turtles of the Indian Ocean and South East Asia,[85] and the Agreement for the Conservation of Albatrosses and Petrels (ACAP).[86] Most relevant to this paper, the habitat focus of these instruments, coupled with the development of plans of action ('management plans') for the entire species range (often a single geographic region or sub-region), enables a kind of action that operates in coordination with other more formal geographic protections. This can enable coordination among countries and among sectors within each country, and typically embodies kinds of flexibility and awareness of use-related requirements that is sometimes missing in other kinds of marine protected areas.

2.1.3 Integrating instruments and processes

At some levels, international efforts have been ongoing to attempt to better reconcile the various marine interests and concerns relating to management of the natural resources of the marine realm.

UNGA Ad Hoc Informal Open-ended Working Group and Other Processes

Presently, processes under the United Nations General Assembly (UNGA) are being undertaken, and offer some hope for further development and integration among the international instruments described above, and a more effective basis for integrated national action, regarding conservation in the marine biome and the creation of MPAs. Up to now, the most important of these processes have been the non-binding discussion processes under UNCLOS, known as the United Nations

[81] CITES, Articles III.5, and IV.6.
[82] Monaco, 1996, entry into force 2001.
[83] (opened for signature at the UN HQ New York) 1992, entry into force 1994.
[84] Formerly, "Wadden Sea Seals Agreement," (1978) currently functioning under a broader "Administrative Agreement" among the three range states, adopted and in force as of 1987.
[85] Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia (2001).
[86] Capetown, 2001, entry into force 2004.

Intergovernmental Consultative Process on Oceans (UNICPO), which has given priority attention in most of its sessions to matters relating to the implementation of Article XII of UNCLOS, including to the further development of MPA rules.

In 2005, however, at its special session to commemorate the twentieth anniversary of the signing of UNCLOS, the United Nations General Assembly adopted a comprehensive resolution on Oceans and Law of the Sea that called again for States to protect the environment and its living resources,[87] and to achieve the World Summit on Sustainable Development (WSSD) 2012 target regarding the need for representative networks of MPAs. A more concrete expression of this resolution is found in a General Assembly cross-cutting Working Group which is expected to enquire into "issues relating to the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction."[88] This process specifically called upon to address the issues of marine conservation and MPAs, across a range of international and regional binding and non-binding instruments and processes (including UNCLOS, CBD, and FAO) and to integrate with other 'soft processes, such as UNICPO.

In light of its central role in addressing these issues and the paramount role of UNCLOS in this connection[89] (recognized by other bodies, including the CBD, which has adopted a decision regarding its participation as an information provider in this process[90]) this process will be overseen through the General Assembly itself, creating a level playing field for the discussion of the range of issues and positions currently promoted through a variety of international forums. It will, to some extent be guided by existing UNGA resolutions promoting conservation, including through geo-located protective measures.[91] Following its initial meeting, this Group's Co-chairs, recognized that certain options and approaches relating to the possible establishment of marine protected areas in the high seas, might promote these objectives. This suggests that MPA issues may be included in discussions of the need for an implementing agreement under the United Nations Convention on the Law of the Sea.

Agenda 21

Agenda 21 (a non-binding document, sometimes called "Earth's Action Plan") identifies a full range of issues that must be addressed in a globally and locally integrated or interrelated way, in order to ensure the health, stability and sustainability of the ecosystems, species and the global environment. These principles are directly applied to the conservation and management of the oceans in Chapter 17, which calls on States to co-operate with regard to the protection and restoration of endangered marine species and the preservation of habitats and other ecologically sensitive areas.[92]

Declaration of the World Summit for Sustainable Development

In 2002, the WSSD recognised that the ocean-related objectives of Chapter 17 are still largely unmet, and that the needs discuss in it are now critical. Accordingly, its Plan of Implementation includes a number of specific time bound commitments, including "the establishment of a representative network of MPAs" by 2012.[93] States are called on to maintain the productivity and biodiversity of important and vulnerable marine and coastal areas, including in the high seas; and to develop new approaches and tools to establish marine protected areas consistent with international law and based on scientific information." The WSSD targets on marine conservation and the network of representative protected

[87] UNGA Assembly Resolution n° A/57/L.48
[88] Established by the General Assembly, the Group met from 13 to 17 February 2006, and follow-up meetings are expected, either directly or through the "consideration of the need for an implementing agreement under UNCLOS," mentioned in text.
[89] General Assembly resolution 60/30
[90] CBD Decision VII-24, para 42. (2006)
[91] General Assembly resolution 59/25;paras 66-69, and especially para. 71.
[92] Agenda 21, ¶ 17.46.
[93] WSSD Plan of Action, ¶ 31. Other key commitments of this section include the restoration of fisheries to maximum sustainable yields by 2015; and a significant drop in the rate of species extinction by 2010. The importance of a "system" of protected areas, as opposed to "token" approaches, is discussed in the Global Biodiversity Outlook (CBD, 2001) at 131.

areas have been recognised by an overwhelming majority of the instruments (both global and regional) described in this paper, and are providing a basis for coordination among them.[94]

2.2 Regional instruments

An extensive range of legal instruments address marine issues relevant to MPAs at the regional level. The number of available instruments is so great, in fact, that it is not possible to address them all in this paper.[95] Consequently, the following discussion discusses only a few documents and categories of documents, to provide examples of particular types of regional instruments, based on their objectives with regard to geo-located conservation laws. It is meant to be illustrative of the manner in which it can address the range of variation in regional instruments and their provisions. It begins with a summary of two overall categories of instruments – the 'Regional Seas Conventions' and the 'Regional Fisheries Management Organisations. Thereafter, it briefly considers MPA components of in three regions – the Antarctic, European waters and the Pacific islands.

2.2.1 Regional Seas Conventions

The UNEP Regional Seas programme is intended to foster regional co-operation on behalf of the marine and coastal environment. It has supported the development and adoption of nine "regional seas conventions" and various protocols under each, is active in four other regions, and has entered into partner programmes with two pre-existing regional agreements relating to oceans.[96] Regional Seas (RS) Conventions, although often structurally similar, are individualised particularly in their various protocols (where MPAs are typically addressed). Most RS Conventions operate through Action Plans, which serve as "prescriptions for sound environmental management" and mechanisms for promoting co-operation.

The Regional Seas programme is a vehicle for synergies, as it provides a means for regional groups to facilitate effective implementation of the multilateral environmental agreements (MEAs) by the countries that are parties to the regional seas agreement. The Programme has recently become a platform for inter-regional coordination, as well.[97]

2.2.2 Regional fisheries management instruments and organisations

Regional Fisheries Management Organisations, although long in existence, have taken on a new character in the provisions of UNCLOS which recognise them[98] and in the role contemplated for them in the CCRF. RFMOs are expected to establish conservation and management measures to facilitate joint assessment of stocks and ecosystems, and ensure that the biodiversity of aquatic habitats and ecosystems is conserved and endangered species are protected.[99] For many RFMOs, the designation of controlled zones and similar mechanisms have been utilised toward these purposes. RFMOs and fishing fleets have the primary current and potential responsibility and opportunity to exert oversight and management beyond the easy reach of land-based coastal services. Others have addressed these matters without formal instruments, either coordinating with other bodies or through more flexible (planning and scientific research) mechanisms. Some have not addressed it at all.[100]

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[94] *See, e.g.* Expert group on outcome-oriented targets for the Programmes of Work on the biodiversity of Inland Water Ecosystems and Marine and Coastal Ecosystems (Montreal, October, 2005)

[95] The list provided in Appendix 3 includes a number of regional marine governance instruments of various types. Although offered as 'complete,' this list is constantly changing.

[96] The full list of Regional Seas Conventions and protocols and Partner Conventions can be found online at http://www.unep.ch/seas/main/hconlist.html.

[97] As reported in the RSP website, the Parties to the Antigua Convention are developing coordination with the Wider Caribbean RSC. Another cross-continental cooperation is developing between the Abijian and Nairobi Conventions.

[98] UNCLOS, Articles 117 and 118.

[99] CCRF., 7.2.2(d)-(g) and 7.3.2.

[100] A number of existing works summarise the texts (contents and powers) of RFMOs (see e.g. Kimball, L., 2000), although none to date have analysed the legal issues or examined the contents of their proceedings and practices to determine what those provisions have meant in practice and how they are being applied.

2.2.3 Practical examples from three regions

The following summaries (the Antarctic, Europe, and the Pacific Islands) exemplify the variation among regional approaches to MPAs. Regional experiences demonstrate the manner in which existing international instruments can operate in an integrated fashion.

The Antarctic Treaty System

The creation of marine protected areas under the Antarctic Treaty System is most specifically discussed in the Convention on Conservation of Antarctic Marine Living Resources (CCAMLR) Commission. CCAMLR recognises two types of MPA – Antarctic Specially Protected Areas (ASPAs) or Antarctic Specially Managed Areas (ASMAs),[101] as well as a third type of *de facto* MPAs:

- ASPAs are conservation-focused, designed to protect outstanding environmental, scientific, historic, aesthetic or wilderness values, as well as scientific research. Designation is based on the nature and value of the area and resources – as (1) wilderness areas, (2) representative areas, (3) "areas with important or unusual assemblages of species," (4) areas which are "the only known habitat of a species," and (5) other areas protected for their outstanding environmental, scientific, historic, aesthetic or wilderness values, or for scientific research.[102]
- ASMAs, by contrast, are focused on species or area sustainability. An ASMA may be declared wherever a limitation or control is needed (including in congested areas, or to minimize cumulative environmental impacts). ASMAs are integrated management/zoning areas.
- CCAMLR's limitations on 'new and exploratory fisheries' (NEFs)[103] create a third *de facto* geo-located protection. Although NEFs may be applied by species, it is also possible to designate an area.

Procedurally, the CCAMLR operates through the CCAMLR Commission, a body composed of representatives of all original Parties (automatically) and all Parties that subsequently accede to the Convention (by vote of the current members). The designation of ASPAs, ASMAs and NEFs are all considered to be 'matters of substance';[104] hence, such a designation may be created only by consensus of all members of the Commission (that is, a proposal to designate an area will pass so long as no Commission Member objects). The primary legal difference among the three options relates to their permanence. NEFs are actually a two stage process – a fishery is declared "new" and then becomes "exploratory," after these designations, catch limits and other factors are annually re-defined.

European Regional Instruments

A variety of different regional instruments and processes govern European ocean areas, which seek to operate synergistically, despite legal and procedural difficulties.[105] Europe's Members have adopted many different approaches to conservation, requiring serious networking and cooperation.

One critical element of European regional cooperation in MPAs is found in the Natura 2000 programme. The European Union's (EU) 25 members and a number of other countries, which have formally committed to complying with key EU regulations, comprise the vast majority of the continent. Hence its coordinative framework can provide a strong basis for norm development and

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[101] Protocol on Environmental Protection to the Antarctic Treaty (Madrid, 1991), Annex V. ASPAs and ASMAs are not mutually exclusive. An ASPA may easily be a 'zone' within a broader ASMA.

[102] Annex V. § 3.2. ASMAs include areas (1) needing strict protection; (2) exemplifying major ecosystems; (3) with important or unusual assemblages of species (including native birds or mammals as well as fish); (4) considered the only known habitat of a species; (5) of outstanding value, (6) set for scientific research, and (6) containing outstanding geological features.

[103] Created by CCAMLR Conservation Measures 21-01 and 21-02 (Adopted by the Commission in 2002).

[104] CCAMLR Commission Rules of Procedure, Rule 4 (a).

[105] *See, e.g.* the OSPAR, Barcelona Convention, and several RFMOs, as well as ACCOBAMS, ASCOBANS, Trilateral Wadden Sea Collaboration, and other agreements.

networking across the entire region, including between and among other regional programmes in the area.

Natura 2000 is focused on creating a "coherent network of protected areas," including both Special Protection Areas (SPAs) under the Birds Directive,[106] and Special Areas of Conservation (SACs) under the Habitats Directive.[107] Protection of marine biological diversity is expressly made part of this programme. Natura 2000 has created a strong motivation to meet relevant targets. [108] Although work in the marine area has been somewhat slow at times, many countries have taken very strong affirmative steps toward meeting these targets in that biome. [109]

Beyond Natura 2000, which promotes individual countries to take action, regional processes also promote joint and collective action under a number of different instruments and processes, using mechanisms that vary greatly. The most active declaration and protection mechanisms in this region are found under the Barcelona Convention and its "SPA and Biodiversity Protocol", whose Parties are specifically authorised not only to act individually (as to areas within their jurisdiction)[110] but also to declare MPAs collectively (as to areas that cross national boundaries or are outside of national jurisdiction,[111] but within the scope of the Convention). Parties can create Specially Protected Areas within their territory by adding them to the list of Specially Protected Areas of Mediterranean Importance (the SPAMI list).[112] Beyond their territory, a broader evaluation is necessary. The SPAMI process is also a vehicle for coordination of Mediterranean MPAs.[113]

By comparison, the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) has focused its attention on MPAs declared by Parties individually, with guidance regarding "necessary measures to protect [and] conserve marine ecosystems,"[114] as well as "means, consistent with international law, for instituting protective, conservation, restorative or precautionary measures related to specific areas or sites or related to particular species or habitats."[115] Although these discussions are currently ongoing, such means have not been developed as yet. Some current proposals have focused on areas that are fully or partly beyond national jurisdiction – whose formal designation through OSPAR will require a consensus decision.

Coordination among the European instruments is a very important concept. All of these instruments are independent, with independent governing bodies, however, there is a high level of integration of their activities. Although legally important, most instruments seek to promote coordination through COPs or similar processes.[116] This may be partly facilitated by the overlap among members of these instruments, and the fact that most European regional instruments are observers in each other's

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[106] EUROPEAN UNION, EU Birds Directive (79/409/EEC of 2 April 1979). Although focused primarily on birds, this document includes provisions for the protection of 'habitat species', and the designation of habitat areas for protection.
[107] EUROPEAN UNION, European Directive on the conservation of natural habitats and of wild fauna and flora (the "Habitats Directive" 92/43/EEC of 21 May 1992). This document focuses on the creation of a coherent network of protected areas.
[108] Natura 2000 sites were to have been identified by 1998. Several states failed to propose sites within this time. For example, after the deadline had passed without any German site proposals, the European Court of Justice found Germany to be in contravention of the Directive.
[109] Germany, following the ECJ censure, notified the EU of 10 new areas, totalling approx. 31% of the German EEZ. Together with the existing nominations of the states in the country's territorial sea, approximately 38 % of the total German marine area will eventually be under direct protection. Discussed in Natura 2000 materials provided by Henning von Nordheim of the Bundesamt for Naturschutz, and found online at http://www.habitatmarenatura2000.de/en/intro.php
[110] Primary responsibility for "ensuring consistency of proposed protection and management measures, as well as the means for implementation" rests with the party or parties who propose the area for listing. SPAMI Protocol, Arts 9.3(a), and 9.5
[111] No part of the Mediterranean is more than 200 nm from a shore or island, and few countries have declared EEZs, covering the full range of EEZ authorities. Consequently, one cannot easily predict marine jurisdiction in the Mediterranean. Proposals have been made to develop a GPS-supported formal map showing full range of the Sea's jurisdictional coverages.
[112] SPA and Biodiversity Protocol of the Barcelona Convention, Art. 8.2.
[113] *Id.* Articles 3.2 and 3.4.
[114] OSPAR, Art. 2.
[115] OSPAR, Annex V, Art. 3. Annex V has not been adopted by all 16 OSPAR parties as yet.
[116] OSPAR's coordination provisions are very strong. *See* Annex V, and OSPAR's 1992 Agreement on the Meaning of Certain Concepts (calling for coordination with other instruments, and 'separate but coordinating' work with RFMOs).

processes.[117] Most of these instruments maintain databases or other resources regarding species, ecosystems and geographic areas protected under their respective systems. Formal or informal MPA designation under one instrument may be given special consideration by others whose geographic coverage includes all or part of the MPA. For example, most areas declared as PSSAs by IMO are also Special Areas under European treaties. Other synergies have sometimes been proposed.[118]

[South] Pacific Regional Instruments

Coordination among instruments is a more direct objective of the Pacific Regional Environmental Programme. Originally created as a vehicle to enable small island countries in the South Pacific to share expertise, actions and results in the fields of environment and pollution issues, the South Pacific Regional Environment Programme's (SPREP's) continuing mandate "to promote co-operation in the Pacific region and to provide assistance in order to protect and improve its environment and to ensure sustainable development for present and future generations" has expanded and improved over the years since its creation. SPREP's approach to coordination at the regional level is much different from that of the European instruments, in two ways. First, in initial conception as a 'regional environmental programme', SPREP has found it easier to shape its mandate based on member's needs and desires for coordinated action. In addition, over the years since its creation the Programme has become the repository of other instruments (the Apia and Waigani Conventions), and involved in a broad variety of other region-wide actions.

As a consequence of this integration, SPREP's proposed involvement in MPA creation may be more integrated from the outset. Rather than having different protections developed by different sectors and later negotiated among them, the SPREP approach suggests that at least some of the relevant sectors will be involved in negotiations and programmatic development from the beginning. SPREP's provisions for conservation are thus much more focused on an 'ecosystem approach' which integrates social and economic issues with conservation concerns from the outset. Moreover, the Pacific Islands represent one of the few areas in which one can consider a 'community' (rather than a commercial sector) to be directly interested in the broader reach of oceans. Hence, it is not surprising that community decision-making is strongly integrated in SPREP's objectives and *modus operandi*.[119]

2.3 Overall gaps, and controversies in the international framework[120]

The completeness of the current international framework as described above, has been the subject of long discussions and debate, and will be further considered in international processes. These discussions have different impact and relevance to different ocean zones, given that, for example, the central issues of MPAs in the high seas (legal coverage and mechanisms) are well decided for waters and submerged lands under national control, but undeniably unclear and controversial for other areas.

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[117] *E.g.* Observers to OSPAR include Secretariats of ASCOBANS, Arctic Monitoring and Assessment Programme (AMAP); Helsinki Commission, Barcelona Convention; Trilateral Wadden Sea Secretariat the Cooperative Programme on … Long-Range Transmission of Air Pollutants in Europe (EMEP); EEA (ASMO only); IOC; IAEA; International Commission for the Protection of the Rhine against Pollution; ICES; IMO; NAMMCO; NEAFC; North Sea Secretariat, OECD, and UNEP.

[118] For example, in 2003, ASCOBANS proposed to alter its geographic coverage to match that of the OSPAR region. (That proposal was referred for further study). *See also*, Kimball, L., 2005, noting without citation that the OSPAR Commission has recently written to the North East Atlantic Fisheries Commission (NEAFC) regarding the possible protection of cold-water coral reefs on the western slopes of the Rockall Bank, and elsewhere in the OSPAR region. It is not clear what the legal nature and source of this 'writing' might be.

[119] Although giving "considerable attention" to coastal and marine environments, which it notes are the 'dominant ecosystems of most SPREP members, it is notable that to date, SPREP's work has not as yet specifically focused on MPAs. However, it is clear that MPAs created by SPREP member countries are guided by the Noumea Convention. (Article 14).

[120] This section examines legislative gaps, inconsistencies and controversies, and does not consider the issues of implementation/governance, decision-making, and socio-policy, to be considered in other papers. Based on requests to avoid 'purely legal issues' and focus on questions of legislation of relevance for discussion/decision by non-lawyers, this section will not discuss the broader range of still unresolved legal issues relating to oceans and international conservation instruments, such as the legal status of marine jurisdiction (currently under continuing negotiations in numerous international forums), the extent of application of customary international law and international common law to these issues, the responsibility for development of consistent interpretation of overlapping provisions, and the ISA's ability/authority to redefine its mandate to include non-mobile living resources of the Area.

2.3.1 Impact of the international framework on MPAs in the high seas and the area[121]

Recently numerous experts have considered the question of 'gaps and inconsistencies in the international ocean regime concerning MPAs and conservation in the high seas and The Area.[122] These discussions have focused on two primary questions: (1) Is there sufficient international law to support the creation of MPAs in the high seas and in The Area? (i.e. Are there gaps in the international framework?), and (2) What mechanisms or methods can be used for creating MPAs?[123]

Coverage of the Framework

In the high seas, three types of legal coverage issues should be examined relating to the international framework – *substantive coverage*, *geographic coverage*, and *political coverage*.[124]

(a) Substantive coverage

Substantively, the primary provisions of UNCLOS, the CBD and other international instruments are sufficiently broad and comprehensive to encompass the creation of MPAs in the high seas or The Area. Coverage discussions instead focus on the need for additional detailed (regulatory-style) provisions to guide/mandate legal and practical actions relevant to MPAs, whether defined as such or in more general terms (measures for protection of the marine environment, *in situ* conservation, etc.). At the global level, instruments and processes have not yet been able to agree on such detail with regard to MPAs *per se*. Specific powers do exist, however, which might enable the layering on of additional protection for particular areas have been specified in some existing geo-located provisions (*i.e.* areas already subject to limits on maritime transport, mining and mineral-related operations, fishing, other use of marine resources, protection of particular species and habitats, and/or possible enforcement tools). As noted above some regional documents have begun to coordinate in this way.

Regarding specific issues, two primary areas relevant to MPAs in the high seas are currently perceived to be unaddressed within the international framework–

1) rights and responsibilities relating to the living resources of The Area,[125] or
2) declaration of protected areas in either the high seas or The Area.

Other open questions have been identified regarding the ability to develop legally valid criteria for site identification with regard to largely unexplored high-seas,[126] and the extent and nature of possible enforcement of MPA provisions in high seas and Area.

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[121] The high-seas and Area represent one element of the concerns of this paper, but are not the primary focus of this report or of the planned meeting. Accordingly, these issues are only briefly summarized in this paper.

[122] See, e.g. Kimball, *et al.,* 2005; Herriman, *et al*., 2002; Baker M., and de Fontaubert, A.C., 2001; Young, T., 2003, and Young, T., 2005.

[123] A third question (actually the first that must be considered) – the necessity of MPAs or other geo-located protections in the high-seas is a scientific, policy and socioeconomic question, rather than a legal one.

[124] To date, although a full legal analysis of these issues is still needed, a number of authors have provided initial analyses of one or more of these points, based on the texts of the various instruments and decisions of the Parties.

[125] Many of these issues are couched in terms of the "genetic resources of the Area," based on Article 15 of the CBD. This issue is not further discussed below. These matters are currently the subject of ongoing and difficult negotiations under the auspices of the CBD, (*See, generally,* CBD COP VII/19, UNEP/CBD/COP/VII/19, at part D) and have only a limited relevance to MPAs. Existing international marine law does not appear to address these issues. For a detailed analysis, *see* Young, T. 2004 "An Implementation Perspective on International Law of Genetic Resources: Incentive, Consistency and Effective Operation," in *Yearbook of International Environmental Law*, (Oxford Univ. Press), (general analysis, but mentioning marine matters), and Young, T., et al., 2006, in *Covering Access – Addressing the Need for Sectoral, Geographical and International Integration in Implementing the ABS Regime* T. Young, ed. (IUCN, 2006) (specifically addressing marine resources).

[126] Information deficiencies extend beyond the fact that over 90% of ocean areas have not been studied or even surveyed. For example, efforts to declare hydrothermal vents as MPAs must find a way to address the fact that vent fields are not permanent phenomena. Although the length of their continuation is not yet known, it is clear that they have a potentially predictable life

(b) Geographic coverage

Geographic coverage (the ocean areas to which each instrument applies) is usually specified in each instrument's text. UNCLOS, for example, is generally intended to cover all oceans, including enclosed and semi-enclosed seas. Some instruments (e.g. the FSA and Part XI Agreement) apply only beyond national jurisdiction.[127] Others (e.g. the CBD, CMS, IWC) focus on each country's use of its powers to regulate activities of its citizens and of vessels in the high seas.

Coverage at the regional level is more complex. Coverages sometimes overlap, while many other ocean areas may not be covered by relevant regional instruments.[128] Where a variety of regional instruments operate in generally the same area, their coverage areas typically vary from one another, so that a rather complex overlay pattern may emerge, creating geographic loopholes of various types.

(c) Political coverage

The most significant gap in the substantive coverage of the international regime of oceans is that of the political status of the instruments themselves. The most comprehensive legal instruments and frameworks relevant to high seas conservation (e.g. UNCLOS, the CBD, and MARPOL, and some other IMO instruments) have not been ratified by the United States, for example. Each global instrument is supported by a different mix of Parties (e.g. the United States has ratified the FSA, even though it has not ratified UNCLOS). Many regional instruments have been acceded to by only a small number of countries within the region.[129]

The patchwork of geographic and political coverage can operate as a restriction on action. Each instrument is entirely separate and cannot formally integrate. Coordination among instruments regarding a particular area can thus be difficult.[130] Consequently, although the substantive coverage of the international regime of oceans is clearly broad enough to support creation of high seas MPAs, guidance and some mechanism for coordination/integration of existing instruments seems essential. Where countries are not party to particular agreements relating to actions on the high seas, only a small number of principles of international customary law apply.[131]

(d) Other gaps

Like all international legal frameworks the international regime of oceans faces perennial problems regarding enforcement, implementation and coordination. These issues can have a very serious impact on MPA proposals, which depend on a high level of compliance across the range of users and potential users of the area. Few international instruments function to promote compliance or implementation.[132]

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span. Particularly in areas beyond national jurisdiction (in which protection must be negotiated internationally) it may not be worth the effort to protect such areas.

[127] The FSC includes a few provisions applicable within the EEZs of member states.

[128] *See* Kimball, L. 2000, which provides illustrative maps of the metes and bounds of most RFMOs, *and see* Appendix 3.

[129] In some cases, countries outside the region are allowed to accede to particular regional instruments.

[130] As noted above, for example, the IMO has so far refused to grant PSSA protection for the mouths of the Bonifacio Straits in the Mediterranean, despite acceptance by the countries with jurisdiction over the area. Chevalier, C., 2004.

[131] These principles are codified in UNCLOS as 'freedoms of the high seas' – a concept which imposes few restrictions on countries and vessels who use the high seas (for any purpose) in a peaceable manner, without endangering other vessels, installations or owned property, and without committing acts of violence or piracy. International customary law recognises a number of elements that have been codified in UNCLOS, however, many provisions of UNCLOS (including those relating to conservation and sustainable use) address 'new' issues not formerly a part of international maritime law, and thus not yet recognised as international customary law. MPAs and other geo-located protection provisions are among the latter.

[132] The WTO is the most successful example: WTO parties agree to abide by its tribunal, and the sanction of restricted or curtailed trade with other members – which does not require an enforcement body – is a strong disincentive. CITES has had similar success, using a similar disincentive (restricted species-related trade with CITES Parties, and international censure through public opinion). Lacking self-enforcing sanctions, other (voluntary) tribunals have been less effective.

Procedural issues – methods and mechanisms

With the exception of the Mediterranean, it appears that current global/regional provisions for creation of MPAs and permanent geo-located protective measures in areas beyond national EEZs can only be adopted by consensus.[133] This statement was disputed in the workshop, however, as currently written, it continues to reflect the results of the research for this report (including following the workshop).[134] To the extent true, this statement suggests that there may be little procedural or political difference between creating a binding framework before declaring a high-seas MPA and just negotiating a new instrument for each new protected area.[135]

Other options for the development of MPAs include:

- development of non-binding instruments (voluntary protections);
- layering various kinds of specific protections by different global and regional instruments and entities so that they all apply to the same geographically defined zone (cumulative protections); and
- agreement by individual countries to bind themselves to MPA designation immediately (incremental protections).

Under the third option Parties create an instrument that is only binding on them (its signatories). Signatory countries agree to require their citizens, entities under their jurisdiction, and vessels under their registry to comply with the protective measures for the designated area. This mechanism may be undertaken (i) by agreement among like-minded countries (even if only a small number of countries participate), without formal adoption by an international forum or negotiation, or even (ii) by declaration of a single country. Some of the CMS instruments appear to utilise this approach (ACAP and the various instruments governing marine turtles). Similarly, the four States that developed the RMS Titanic Agreement, are taking this approach, hoping that other countries will join in future.[136]

2.3.2 Gaps in the framework relevant to national MPA activities[137]

No global or regional instrument reviewed for this report *requires* that countries adopt MPAs or any other geo-located protective measures. However, many of these instruments (both global and regional) strongly *authorise* or *enable* countries to take such action, if they decide to do so in the exercise of their sovereignty.

More broadly, countries *have* firmly committed to:

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[133] The CCAMLR Commission also acts by consensus, however, the rules leave open the possibility that, in future, the Commission may not include all Parties to the Convention.

[134] Other participants in the workshop reminded the author of numerous RFMOs whose decisions are made on non-consensus bases (i.e. some decisions may be adopted by such RFMO over the objection or opposition of some Member countries). Following the meeting, the author researched the specific RFMO documents mentioned with a focus on this point. With the caveat that not all RFMOs allow members of the public to have access to their governing documents (including rules of procedure), the author searched for such power. No RFMO that she found *both* empowers its governing body (COP, MOP, Annual Meeting, etc.). to adopt specific provisions for long-term geo-located conservation measures (although this is a matter of interpretation, and can only be known by studying decisions taken by the governing body), and operates by non-consensus process with regard to those decisions. It is noted that this issue requires more detailed study, which should be commissioned through FAO or another body that has access to all relevant documents, to confirm or refute this initial conclusion.

[135] The development of site identification criteria will have a different role in international process than at national level. At national level, site criteria are often adopted to enable an administrative body to designate sites without returning to the legislative body. This result is unlikely in international law, particularly where sovereign rights (high-seas freedoms) are involved. Recent proposals focus on the creation of a high-seas MPA framework, either as a new and separate instrument in the form of an amendment to existing instruments. *See, e.g.* Kimball, et al., 2005. Presumably under these approaches, each MPA would be a protocol or formally adopted document under such a new framework. It is not clear how the framework would shortcut the negotiation and adoption of such individual documents.

[136] The Titanic Agreement will enter into force once two countries have ratified/acceded to it. This has not happened as yet.

[137] Please note that this section only examines the gaps in the international framework relevant to national legislation. National implementation experiences and issues are discussed in Part III of this paper.

(i) adopting appropriate measures for the protection, conservation, preservation and sustainability of the biological resources within their territorial seas, EEZs and OCSs, and

(ii) ensuring that the persons, entities and vessels under their jurisdiction comply with measures of other countries and international bodies, regarding other countries' territorial seas, EEZs and OCSs, as well as the high seas and the Area.

While many commentators view MPAs as an essential part of achieving these international objectives,[138] the decision about whether they are necessary rests with the country itself. Since each country's MPA decisions are matters of national sovereignty, the international framework's provisions for national MPAs focus on facilitating national implementation – on providing guidance and assistance, rather than imperatives. Legal gaps in coverage arise where international concepts are not clear, particularly as to matters affecting national rights or the relationship between countries, or between any country and the international bodies relevant to oceans and conservation.

Substantive legal coverage

Generally, the international framework recognises and supports States' sovereignty, and the shared objective of protecting the marine environment and resources within their jurisdiction. It is generally left to each State to decide whether it achieves these objectives through the use of MPAs or through other means. The exception to this generality is the WSSD Plan of Implementation which specifically calls for MPAs. Still open legal/systemic issues concerning the international framework's relationship to national MPAs, include:

- Rights of a State that has not asserted an EEZ, or has asserted partial EEZ powers and duties;[139]
- Protection of waters above a country's OCS, and/or the nature of the (horizontal) jurisdictional boundary between the OCS and those waters.[140] (Obviously, each country has the best access, knowledge and incentive to control and protect the waters above its own OCS).

Responsibilities of foreign citizens, entities and vessels

The most important contribution of the international framework to national MPA development and implementation is the fact that each country and its citizens and vessels must comply with requirements of other countries. UNCLOS's strong provisions for 'innocent passage' through waters under national control or oversight are balanced by provisions (also very strong) that countries must require compliance with other countries' regions' measures for protection of marine resources, including MPAs, restricted-use areas, shipping lanes, ballast water discharge zones (or prohibitions) or facilities. This should enable countries to take action against foreign citizens and vessels for conservation violations, and to demand that the country with jurisdiction over the defendants should support and enforce those actions. These provisions have been applied through the International Tribunal on Law of the Sea (ITLOS), as well as in national courts, and could well be applied to MPAs.

The primary gap in this connection is the lack of a reliable penalty/incentive system that can be applied where the violators' country will not take action or submit to the jurisdiction of the ITLOS. Ultimately, the resolution of this problem may require additional legal instruments, however, the primary obstacle preventing such action is probably political.

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[138] Allison, G.W., et al. 1998.

[139] For the present, it is common to consider these areas to be part of the regime of the high seas. Scovazzi, T., 1999, Chevalier, C., 2004.

[140] Although the OCS is fully controlled by a single State, the superadjacent waters above it are part of the high seas and therefore under the control of all States. OCS rights consist solely of "the mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species, that is 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." UNCLOS, Article 77.

Guidance for the creation and implementation of MPAs

The international framework also provides mandates for the creation of guidance documents, technical assistance and other mechanisms which can share experiences, new concepts, best practices, and other tools.[141] Such mechanisms can support integration and synergies among international instruments (which, as noted above, is very difficult at the global/regional level) through national implementation. Unlike formal decisions of Conventions and other instruments, guidance principles and other tools can (and will usually be required to) be developed with the goal of synergistic implementation and compliance of as many relevant instruments as possible. At present, many international processes call for such guidance, suggesting that this issue is not really a gap, but rather an 'as-yet-uncompleted mandate." For example, OSPAR has undertaken serious work toward the creation of guidelines and an implementation plan for the identification and establishment of MPAs throughout its coverage area.[142] In the early steps of implementing these decisions, OSPAR has already compiled lists of threatened species and habitats.[143] These documents have been discussed in other bodies' international meetings as possible starting points for the development of global guidelines and standards.[144]

Networking

Increasingly, international processes provide significant forums for networking of technical and administrative experts, sharing experiences, needs and requirements.[145] These provisions also promote cross-border coordination and the development of informational databases, analysis of broader issues such as representativity and the need for a network of protected areas. In particular, Agenda 21, and especially the targets and objectives stated in the WSSD Plan of Implementation are directed towards networking national efforts that contribute to international environmental objectives. In this connection, there are several possible gaps, such as the needs for:

- official mapping of biomes and spatial distribution factors, as well as of geo-located protections, and providing a basis for integrating national measures into such mapping process; [146]
- guidance for biome-specific application of the precautionary principle in the context of geo-located conservation measures,[147] and
- mechanisms for the involvement of stakeholders in marine resource management decisions.[148]

These issues continue to be difficult and somewhat controversial in many biomes and frameworks, and generally require specific provisions for application in each.

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[141] *See, e.g.* CBD-COP Decision VIII-24, paras 29-34 and 38 (2006).

[142] OSPAR Strategy on the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area. IMO has also adopted, and is revising Guidelines for the identification and Protection of Special Areas and Particularly Sensitive Sea Areas. Resolution A. 720(17).

[143] Id at Paragraph 2.2, *and see* 2004 Initial OSPAR List of Threatened and/or Declining Species and Habitats (adopted in OSPAR 2003 and updated in 2004), Reference Number: 2004-06.

[144] Meeting documents, CBD Ad-hoc Working Group on Protected Areas, Montecatini Italy, November, 2005.

[145] Programmes of work under the CBD and CITES, and operational guidelines under the WHC provide detailed examples of the manner in which they can contribute to the international process, and to synergies among international instruments.

[146] *See, e.g.* CBD-COP Decision VIII-24, para 44(c) (2006).

[147] *See* Korn, H., S. Friedrich and U. Feit, *Deep Sea Genetic Resources in the Context of the Convention on Biological Diversity and the United Nations Convention on the Law of the Sea.* (BFN – Skripten 79, 2003), proposing that "The new user of a resource has to prove that the intended uses will not cause severe damage to the resources." This approach appears to have as its inception, the precaution language from the Code of Conduct on Responsible Fisheries (Section 7.5): *If a natural phenomenon has a significant adverse impact on the status of living aquatic resources, … [and] where fishing activity presents a serious threat to the sustainability of such resources, States should adopt conservation and management measures on an emergency basis to ensure that fishing activity does not exacerbate such adverse impact.* (CCRF, § 7.5.5, slightly reorganized). However, as shown in Cooney, R., 2005, the actual meaning and application of this language is particularly difficult in the resource management process and needs further elucidation.

[148] Often, a large percentage of the primary users of marine areas (beyond those closest shore) have little tie to the country.

3. NATIONAL LEGISLATION FOR MPAs

Under the Terms of Reference (TOR), the next tasks of this Report focus on national legislation authorising the creation and operation of MPAs. The TORs envision two parts of this work – (i) brief exposition of experiences relating to the development of legislation (at national and regional levels, including RFMOs) to implement MPA objectives at national, bilateral and multilateral levels, and (ii) discussion of useful legal options that have been used or proposed for addressing MPA development. Owing to the limitations in the size of this paper, and the substantive difficulties involved in presenting legislative experiences in a way that ensures their usefulness, [149] the author has decided to merge these two elements. This section provides a single discussion of national legislative measures and systems, illustrated with examples from the author's review of national legislation undertaken in the preparation of this Report. [150]

This discussion will be focused through the objectives of MPA creation, and will consider:

- effective legal options for achieving those objectives; and
- the areas in which guidance can assist the legal work of MPA development.

The contents of this section are strongly guided by the author's belief and experience that legislation must be crafted to the particular situation of the individual country (or other jurisdictional unit that will adopt the law), and that it is not productive to adopt specific generalisations about what all countries should do to maximise legislative effectiveness. Hence, these examples are offered to provide some object-oriented basis for the development of legal guidance, rather than as "models."

3.1 MPA legislation – crafting a system to address national needs

At the national level, legislation for the development of MPA systems is or should be a relatively straightforward (although certainly not simple) task. The primary obstacles and challenges of MPA creation and implementation are practical in nature; hence, legislation can be a tool to enable action, to eliminate impediments, or to clarify rights and interests, but cannot bring about conservation or protection of anything.

The process of drafting and negotiation of natural resources and conservation legislation is highly individualised. Among the more than 200 national governments on the planet, it is not possible to find two that are sufficiently alike for purposes of national legislation. Hence, no matter how common the topic is, one will usually find many very different approaches among functionally effective national systems. This can create a problem for the development of guidelines.

Moreover, successful development and implementation of a law is rarely linked to textbook perfection of its drafting. Instead, functional and effective legislation is "situational." The difficulty is not in being able to draft proper legislative provisions, but to design legislation that addresses national needs, requirements and problems, and can operate effectively. In drafting or negotiating MPA legislation, success depends on how completely the drafter understands five factors:

(i) What is required (by national law and under international commitments)?

(ii) What is desired by the body seeking to adopt or propose the legislation?

(iii) What particular problems with current law or related laws have been noted?

(iv) What stakeholders are involved, and what interests or incentives might apply to them?

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[149] The concept of "legal case studies" is highly complex, owing to (i) the number of factors (political, practical, social and economic) and sectors whose input re-shapes legislative situation, (ii) the time between drafting and final implementation, and (iii) the difficulty in measuring progress and/or ascribing particular results to particular legislative choices.

[150] See Specialised Bibliography and Appendix 2.

(v) How do existing relevant agencies and authorities function, and what factors appear to increase their effectiveness within the system?

The challenge for the draftsman of MPA legislation is not in perfect drafting of 'model' legislation, but in discerning what is needed, and crafting the relevant instruments so that they address these five factors, operate in an integrated manner that is consistent (both internally and with other laws), and (where possible) can adjust or evolve to address needs that are found by experience, newly arising problems, and alterations in the physical area involved.

3.1.1 National commitments and obligations

Although, as noted above, international law does not impose specific obligations on a country to create MPAs, several instruments require them to take measures to protect, preserve, conserve and/or ensure the sustainability of marine natural resources, and to ensure that persons, entities and vessels under their jurisdiction comply with measures adopted by other countries. While many commentators view MPAs (and other geo-located conservation measures) as essential for achieving these international objectives,[151] the decision about whether they are necessary rests with the country itself. Accordingly, international law provides guidance rather than imperatives regarding MPAs.[152]

UNCLOS's ocean zones, and its provisions regarding the rights of countries within those zones, are very important to national legislative development. These provisions clarify the rights a country may take with regard to these zones, however, but do not require that a country accept or exercise all of these rights. For example, many countries have chosen to formally adopt only a limited set of rights and responsibilities in their EEZs – i.e. creating only a "fisheries zone"[153] or an "environmental protection zone"[154] rather than a full "exclusive economic zone." Some do not extend to 200-miles. [155]

With regard to their marine resources, including resources of the OCS, it is important to distinguish between countries' powers and their duties. Powers (including the right to exert controls on the taking of biological and mineral resources) are not mandatory. Duties, however, *are* generally mandatory. The UNCLOS and CBD mandates to promote conservation, preservation, protection and/or sustainability of marine resources are duties. In choosing how to meet this obligation, States' powers include the possibility of designating areas for protection (limited or complete) or for other purposes.

3.1.2 Legislative objectives

At the national level, the primary basis for action is the objectives and desires of government, and through it, of the people, often enumerated in formal policy. Typically, legislation is developed around one or a series of these objectives and needs. Protected Areas legislation, for example, may be spawned by intense interest in protecting a specific area or addressing a particular problem. By choosing to adopt a framework of legislation, however, the parliament may perceive one or more broader objectives, such as conservation, protection of threatened areas, tourism, etc. as pre-eminent.

In many cases, however, national legislative objectives have a 'second line' of basic conservation objectives, that specifically indicates their relationship to other national priorities. For example, protected areas law may be limited by the words "without causing undue interference in existing commercial operations" or "while recognising the special rights of coastal residents (or indigenous

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[151] Allison, G.W., et al. 1998.

[152] Sometimes, countries create obligations which allow international entities to require MPA declaration and maintenance. For example, the Great Barrier Reef Marine Park in Australia is the subject of two international commitments – most of the Park is listed as a World Heritage Area under the WHC, and it is also a PSSA under the IMO system.

[153] *See, e.g.* ALGERIA, Legislative Decree of 28 May 1994, at Art. 6; SPAIN, Royal Decree no. 1315/1997, modified by Royal Decree no. 431/2000.

[154] *See, e.g.* FRANCE, *Zone de Protection Ecologique*, created by decree no. 2004-33 (J.O no. 8 of 10 January 2004, at 844, and CROATIA, Zone of Ecological Protection and Fisheries (3 October 2003).

[155] *See, e.g.* SPAIN, Royal Decree no. 1315/1997, cited above.

communities)" or "while recognising the interests created under pre-existing EEZ agreements." In some cases one or more particular concerns (either positive or negative) will predominate.

This is exemplified in Tanzania's Mafia Island Marine Park (MIMP). Although designated as a marine '*park'* a term which in Tanzania is integrally connected to tourism, at the time of its creation the MIMP's objective was not primary tourism. Commercial fishing, community participation, livelihoods and critical habitat protection are much more central to its creation and operations. Consequently, its (community) management processes focus on use issues, with notable success in addressing key abuses, to wit: Elimination of dynamite fishing; demarcation and implementation of a protection zone in Chole Bay; and a gear-exchange scheme to remove seine nets.[156]

3.1.3 Nature and source of particular problems or concerns

In most instances, countries will already have some legislation related to conservation and/or sustainable use in marine areas, but will have determined that it is not sufficient to meet their needs in the designation and implementation of MPAs or other geo-localised measures. Determination of the underlying cause of this conclusion, and the extent to which legislation can resolve them is one of the most difficult elements of legislative development. Typically, the nature of the problem can be:

- institution selection and organisation (the choice of agency/ies, ministry/ies or other legal units assigned to the task, the effectiveness of inter-agency collaboration);
- constitutional/procedural issues (mechanisms for due process, transparency, equal protection, and public participation, that balance governmental obligations regarding public resources to be met);
- empowerment (authorisation of appropriate persons or entities to oversee various aspects and/or to take necessary actions);
- structural concerns (ensuring that legal provisions are appropriate and acceptable under national legislative practice, and divide properly between primary legislation (statutes and ordinances) and secondary legislation (regulations and rules);
- jurisdictional issues (between MPA laws and other laws, ministries, or mandates);
- functional factors (capacity and empowerment of agencies, tools and mechanisms);
- finance (budgetary support, and supplementing it through fees and other sources); and
- evidentiary problems (standards of proof and documentation for administrative and legal actions, and the capacity of relevant officials to meet them).

Examples of legislation drafted to address these factors are found in a wide range of countries. Available literature does not provide a basis for determining if the change in legislation actually resulted in alleviation of the problem. Often, assumptions are made about the source of the problem without full investigation. For example, attributing a problem to the choice of the wrong agency may overlook the fact that the budgetary allotments are insufficient (so that any designated agency would be unable to fulfil the mandate), and that the country does not possess the necessary equipment or other capacity to implement existing laws. In many instances, the above problems will not be "solved" through legislation, although legislation may be one component of resolving the problem.

One useful example, however, is found in Germany. Prior to 2001, the selection of German MPA sites was legally possible only within the territorial sea, and the relevant decision rested solely with the states (Länder) responsible for the particular site. It was claimed that this structure prevented Germany from meeting its NATURA 2000 obligations in the marine areas of the German EEZ. In April 2002, the relevant law was amended, establishing a statutory basis for federal declaration, giving the German Federal Agency for Nature Conservation (BfN) within the German Environment Ministry (BMU) full

[156] From official website (http://www.mafia-island-tanzania.gold.ac.uk/ecology/) supported by the IUCNWCPA-Marine/WWF's MPA management effectiveness project (described at http://effectivempa.noaa.gov/sites/mafia.html)

responsibility for selecting, designating and managing EEZ protected areas.[157] Germany has now successfully designated MPAs covering far more than 10% of its territorial sea and EEZ.

3.1.4 Stakeholders and incentives

Natural resources management (NRM) and conservation are processes that involve both government and various non-governmental stakeholders. In many cases, NRM and conservation laws are designed to regulate and control commercial and other private use of resources. Given the expense and difficulty of patrolling and other direct oversight, it may be impossible to implement these laws through direct government supervision. The alternative would be to enquire into the underlying objectives of various stakeholder groups and to attempt to design incentives that encourage compliance.

This process may take the form of the development of, for example –

- tax benefits, streamlined processes for license renewal and other benefits provided to users who are able to document their compliance;
- certification systems that enable the user to get access to particular markets or buyers, or to obtain a premium price or other benefit; or
- voluntary codes, tied to clear promotional information explaining the benefit to the individual user, the stakeholder group or the wider community that will arise from compliance.

Another, less frequently addressed issue relates to the unintended or perverse incentive arising out of the designation of an MPA. Often, MPA designation is proposed as a tool to curtail certain activities that are harming particular feature – e.g. to prevent bottom trawling which is damaging cold-water corals. However, given that many such ocean features are not yet fully mapped, the designation of an MPA in an area already damaged may operate only as an added incentive to the fisher to find and exploit another cold-water coral site, before it can be officially identified and protected.

3.1.5 System design

One critical factor affecting legislative development is the design of the institutions and processes of MPA governance. This task involves a combination of factors, including integration of new concepts and structures with the functional approaches and systems currently in use. In this connection, it is essential to consider a range of relevant legal frameworks operating within the country, to determine how they function, how they collaborate with other sectors, how governmental responsibilities are divided, how conflicts between legislative enactments are resolved, and other questions.

Often one of the best tools for structural dev development is the comparison among natural resource administrative systems from various ministries. It may be useful to engage in significant research and analysis regarding institutions and systems operating in other sectors, to determine which systems function best, and attempt to identify the particular structural and other factors behind their success.

3.2 Guidance and experience with particular legal options and components

As noted, the actual drafting of legislation addressing MPAs or other kinds of geo-located measures is not unduly difficult or challenging. The greatest challenges of the legislative process are system design – (i) to address the five components described above in an integrated and internally coordinated manner; and (ii) to identify and respond to the unique elements of the marine biome (as compared with terrestrial ecosystems) which alter their administration; and (iii) to focus on outcomes.

[157] GERMANY, Federal Nature Conservation Act (Bundesnaturschutzgesetz, BNatSchG), art. 38

In developing guidance for MPA legislation, it is necessary to consider a list of key legislative elements, and a range of options and of factors that might be useful in selecting among them, rather than promoting specific choices. The following sections discuss a number of key elements that must be considered in drafting national MPA legislation, and suggest some of the possible options for each element, illustrated with examples from national implementation. It attempts also to provide some ideas and suggestions regarding criteria that may affect the selection among options.

3.2.1 Institution(s): selection and authorisation

The nature of the institutions designated to manage MPAs, and the manner in which they operate or coordinate is obviously a key concern for any MPA framework. In identifying and addressing the causes of pre-existing problems or system failures, it is common to identify the institutional framework as the source of the problem. However, generalisations about these issues should be avoided, and institutional development should be guided by national situation and experiences.

Two primary institutional approaches are possible – (i) the development or authorisation of a single, unitary body with responsibility for MPAs (and/or other geolocated marine protective/conservation measures) or (ii) distribution of these responsibilities among multiple institutions. On the surface, this is a choice or spectrum running from maximising internal consistency (the unitary approach) and maximising expertise in management (allowing each agency to act in the areas in which they are expert). In fact, however, the choice will depend on many factors, including past experience regarding the effectiveness of inter-agency cooperation, the specificity of each agency's existing expertise on relevant issues, questions of continuity and many other political and social issues.

In practice, a truly unitary approach is almost impossible. Virtually all MPA institutions involve at least some level of distribution. For example, the Great Barrier Reef Marine Park in Australia, although primarily under a single relatively comprehensive governing framework still recognises the role of sectoral agencies.[158] In addition, although most of its area is under Commonwealth jurisdiction, some parts of the Park are specifically under jurisdiction of the State of Queensland.[159] These separate authorities are fully linked into the planning and management processes of the GBRMP, through a detailed regulatory system for the development, implementation and regular reconsideration of the GBRMP's Strategic Plan.

By contrast, in Tanzania, responsibility for the marine protected areas was contested between the Fisheries Division and other agencies responsible for protected areas and wildlife conservation.[160] In the end, although the initial marine protected area to be designated (The Mafia Island Marine Park) includes entire islands and many of its provisions focus on tidelands and other areas very near shore

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[158] Domestically, at the Commonwealth level, the GBRMP is governed by three laws addressed (only) to the GBRMP. (AUSTRALIA Great Barrier Reef Marine Park Act 1975; Great Barrier Reef Marine Park (Environmental Management Charge-Excise) Act 1993; and Great Barrier Reef Marine Park (Environmental Management Charge-General) Act 1993). Three Commonwealth regulations govern operational matters including management planning, permits, compulsory pilotage, mining/extraction restrictions, aquaculture controls, and general administration. (AUSTRALIA Great Barrier Reef Marine Park Regulations 1983; Great Barrier Reef Region (Prohibition of Mining) Regulations 1999; Great Barrier Reef Marine Park (Aquaculture) Regulations 2000). In addition to these, the GBRMP is also subject to more general Commonwealth laws of specific relevance, including laws governing biodiversity/species conservation, cultural heritage, pollution prevention, indigenous rights, and other ocean-based activities ("sea installations.") (AUSTRALIA Environment Protection and Biodiversity Conservation Act 1999; Environment Protection (Sea Dumping) Act 1981; Historic Shipwrecks Act 1976; Native Title Act 1993; Protection of the Sea legislation; Sea Installations Act 1987).

[159] *See,* AUSTRALIA (Queensland) Coastal Protection and Management Act 1995; Environmental Protection Act 1994; Fisheries Act 1994; Integrated Planning Act 1997; Marine Parks Act 1982 and Marine Parks Act 2004; Native Title (Queensland) Act 1993; Nature Conservation Act 1992; Transport Operations (Marine Pollution) Act 1995; Transport Operations (Marine Safety) Act 1994; Workplace Health and Safety Act 1995. All statutes referred to in this and the previous footnote obtainable from the GBRMPA website at http://www.gbrmpa.gov.au/index.html.

[160] TANZANIA, Marine Parks and Reserves Act, 1994 (Act No. 29 of 1994); *implemented by* Marine Parks and Reserves (Declaration) Regulations, 1999 (G.N. No. 85 of 1999); *and see,* Young, T., *Legal and Administrative Assistance Regarding the Management of Marine Resources and the Proposal to Establish and Manage the Mafia Island Marine Reserve* (FAO, 1991-92, two reports).

(and thus very similar to terrestrial PAs), the government chose to create a separate law and institution within the fisheries Division as the primary management body. This choice was apparently driven by a high level of operational (and legislative separation) among departments within the Ministry of Tourism, Natural Resources and Environment, and the Fisheries Division's existing expertise and involvement in the primary issues of greatest importance.

Legislatively, it will be essential to determine the limits of MPA jurisdiction (or the division of responsibility among relevant agencies) in a way that ensures that there are no unintended gaps in overall governance of marine matters, and that there is a basis for determining involved agencies' mandates in areas of overlap.[161] One approach to coordination involves the creation of one or more supervisory, advisory, or oversight bodies. Very commonly, such a committee may be created including a representative of the relevant sectoral and cross-sectoral governmental agencies. Difficulties arise in considering whether the members of the Committee are:

- specific individuals (ensuring continuity, but creating additional procedural problems when the individual moves to another ministry);
- specific, high-level officers, by position (theoretically ensuring that agencies' decision-makers are aware of MPA issues and inter-agency agreements, but practically making it difficult to have full attendance at meetings, due to the time demands on officials at this level); or
- designated by the head of each named agency (ensuring that each agency is represented at each meeting, but potentially limiting continuity and possibly also minimising awareness of the Committees actions and agreements by other agency members).

All of these options have been used in various legislative instruments,[162] however, it is not really possible to identify one approach as 'best.' Similar questions arise regarding the inclusion of the private sector and members of the public in such oversight committees. Here the main options are inclusion as full members, inclusion as observers, creation of a separate 'advisory committee' which reviews proposals and advises the oversight committee about them, or inclusion only through formal public participation processes. Here also, the selection of options depends on the national situation, with all these (and probably other) options having been adopted by various countries.[163] In many countries, oversight committees are also established at the local level, for each MPA.[164]

One final institutional point which must be mentioned is that of community management. A high-profile issue in other Protected-Area contexts,[165] community-management is a far more difficult concept for MPAs. Direct community management can be difficult, particularly as the distance between the MPA and the shoreline increases. In part this may reflect the complexity of the subject matter, the lack of relevant equipment, the need to address the interests of other stakeholders (fishing vessels from outside the area, the international nature of ocean governance, or other factors.

3.2.2 Procedures and civil protections

One of the most 'legal' areas of legislative drafting is the protection of the civil, human and procedural rights of people involved in or affected by the MPA. These issues are closely governed by primary and organic laws of each country, but are also generally based on internationally accepted principles such

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[161] This latter need must generally be addressed by negotiation among the relevant agencies and their various instruments, rather than a simple statement in the new law that it predominates over all other laws on these issues, given that this provision is often found in all legislation, wherever an unresolved problem of gaps and overlapping mandates exists among ministries or agencies. See also *Legal and Administrative Assistance* (1991-92), cited above.

[162] See, e.g. TANZANIA, Marine Parks and Reserves Act, 1994 cited above, and related reports; SEYCHELLES, Fisheries (Amendment) Act, 2001 (Act No. 2 of 2001).; Maritime Zones Act, 1999 (Act No. 2 of 1999); Environment Protection Act 1994 (Act No. 9 of 1994); and Young, T., *Legislation and Institutions for Marine and Terrestrial Biodiversity Conservation and National Parks in the Seychelles* (FAO, 1992-93)

[163] *See, e.g.* SEYCHELLES, Proposed Marine Conservation Act, 1994 (creating a separate committee with advisory powers)

[164] TANZANIA, Marine Parks and Reserves Act, 1994 cited above, and related reports

[165] *See* documents of the 5th IUCN World Parks Congress (2003). http://www.iucn.org/themes/wcpa/wpc2003/index.htm.

as the rights to "due process of law," "equal protection under the law," transparency, and public participation. In addition to protecting the rights of those affected by the MPA, these principles also protect the more general right of citizens to expect their country to protect natural resources, obtain a fair return from their use, and use those proceeds fairly for legitimate governmental purposes.

Key elements of the legislation will include detailed and transparent processes and standards for

- Identifying, declaring and implementing MPAs;
- Addressing the possibility of de-commissioning MPAs where significant national interests require, or where the site conditions change, due to human factors (such as global warming), natural conditions (such as the end of the 'life-cycle' and eventual disappearance of a protected hydrothermal vent), and unexplained problems (such as coral bleaching).
- applying for and obtaining concessions and licenses;
- ensuring appropriate public involvement in relevant decisions; and,
- protecting the civil rights of stakeholders and others impacted by MPA decisions, by providing rights to
    - appeal or challenge decisions;
    - contest enforcement actions; and
    - have access to information, decisions and discussions.

In addition, it is necessary to address more specific protections and concerns regarding the livelihoods and other interests of marine communities and/or traditional users of the resources. Legal problems in these cases include a limited risk of challenge under the WTO, and potential prevention or delaying of commercial use where the local or traditional communities bring action.

Increasingly, the role of the public in legislative drafting is difficult and controversial. A number of options for public participation exist. While relatively straightforward in developed countries, these processes present greater difficulty in developing countries, where affected communities may also be the ill-equipped to participate in governmental meetings. A detailed example of the application of participation mechanisms in a developing country's MPA process is found in Tanzania's Mafia Island Marine Park, where large multi-day public meetings were held bringing together all relevant government agencies, commercial stakeholders, NGOs, parliamentary representatives, scientists, and a "representative" selection of representatives of local communities.[166]

One of the most important components of public participation is the identification of a representative list of local residents, and assistance in their participation. In the Tanzania example, it was noted that geographic representivity (representatives, including village chiefs, from all affected islands) was not the only important factor. It was also important to get the views of local fishermen, women's collectives who earned money by collecting, drying and selling octopus, entrepreneurs who were collecting and burning coral for lime production, and other groups. Local and artesanal fishermen who did not live within the marine park area (from mainland communities) were also represented. As a consequence of this breadth, many particular kinds of assistance were needed to enable participation, including language assistance, opportunity to ask questions on a one-on-one basis, and special encouragement to each group to provide their own perspectives, even when it differed from those of higher level local officials.[167] Standards for determining whether a meeting is 'representative' and for ensuring that all views are heard require different processes and more detail in these situations.[168]

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[166] *Described in* Coughanowr, C., M. Ngoile & O. Lindén, "Coastal Zone Management in Eastern Africa Including Island States," in Ambio, v. 24, n. 7-8 (1995); Andersson, J., and Z. Ngazi, "Marine Resource Use and Establishment of a Marine Park," in Ambio, v. 24, n. 7-8 (1995).; and Young, T., (1991-92), footnote 149, above,

[167] This need was extremely important with the women's collectives who were relatively shy about expressing their positions.

[168] Young, T., "Legislative proposal Regarding the Management of Marine Resources in the Proposed Mafia Island Marine Reserve and Provision for Future Additional Reserves" (FAO, August 1992)

In developed countries, participation provisions often result in significant change to operational parameters, sometimes creating *de facto* partnerships between government and stakeholders. For example, Australia's GBRMP Authority, in light of its symbiotic relationship with touristic service providers, has adopted a "Marine Tourism Contingency Plan," which "recognises that environmental incidents, such as cyclones and oil spills, which severely degrade the quality of a tourism site may damage not only the reputation of the Great Barrier Reef but the health of the marine tourism industry." Under this plan, the Authority assists with temporary relocations for affected tourism operations, to ensure that they do not suffer economic hardships during recovery

Another key public participation issue relates to stakeholders from outside of the country. In many countries, the main fishing interests operating in the EEZ are foreign nationals and/or vessels operating under foreign flags. Many (perhaps most) of these vessels or individuals are acting under specific governmental agreements and/or licenses. However, it is often difficult under national law to develop, adopt and enforce participation requirements to enable these stakeholders to protect their interests in national decision-making relevant to or affecting their activities in the EEZ.

Public participation requirements are starting spread to a broader variety of legal actions and decisions. Earlier, participation laws focused only on management plan development and hearings for licenses and variances. Increasingly, however, public comment and participation requirements are increasingly applied from legislative development through evaluation and closure.

3.2.3 Specific duties, restrictions, controls and processes

The enunciation of the particular required, prohibited, controlled, and permitted actions within an MPA is an interesting combination, linking technical/scientific/practical needs with legal concerns such as evidence, enforcement, and due process. Some of the most important technical-legal issues focus on the manner in which scientific and modelling data will integrate with protective measures. Regarding MPAs, this issue is most relevant to zoning and planning processes. Although some geo-located protective measures do not call for zoning (where strict measures apply fully throughout a precisely described area), formal MPA legislation normally either allows or requires zoning. In Canada, for example, one MPA law specifically requires that all MPAs must have at least one strict conservation zone and at least one sustainable utilisation area.[169] Effective zoning may also be created by 'layering' more specific geo-local protective measures, including requirements for integrated coastal and marine planning, and controls on fishing, pollution and discharges from ships, minerals exploration and species/habitat destruction.[170] There are several approaches to planning and zoning.[171]

There are also new approaches to focusing marine protective measures. For example, a 2005 decision of the General Fisheries Commission for the Mediterranean (GFCM), designed to prevent harm to the geological and biological structures of the seafloor, calls on GFCM Members to 'prohibit the use of towed dredges and trawlnet fisheries at depths beyond 1 000 meters.'[172]

Legislative draftsman focus greatest concern on the manner in which provisions will be enforced. For example, if enforcement will be based on visual, radar or satellite surveillance, the law must specify the requirements imposed on vessels and users (VTS) and specific statements about when and how one

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[169] CANADA, National Marine Conservation Areas Act, R.S.C. 2002, c. 18

[170] One example of all of the above within a single country is found in Canada. *See* respectively Oceans Act, R.S.C. 1996, c. 31, s. 4(1); Fisheries Act, R.S.C. 1985, c. F-14 (these provisions are not generally geo-located, however the wording of the legislation indicates that they may be applied in that way); Coastal Fisheries protection Act, , R.S.C. 1985 c. C-33; Collision Regulations, C.R.C. c. 1416, whale-strike reduction objectives described in *Transport Canada Press Release* AO17/02, Dec. 19, 2002, online at: http://www.tc.gc.ca/atl/marine/fundy_20021219.htm; Environmental Protection Act, 1999, R.S.C. 1999, Part VII, Div. 3; Shipping Act, R.S.C. 1985, c. S-9, *updated by* Canada Shipping Act 2001, S.C. 2001, c. 26 (in force as soon as regulations are adopted, expected 2006); *generally* (viz marine oil and gas exploration), Environmental Assessment Act, R.S.C. 1992, c. 37; Migratory Birds Convention Act, 1994, R.S.C. 1994, c. 22; *and* Species at Risk Act, R.S.C. 2002, c. 29. Although not stated directly, many of these laws appear to contemplate some implied vertical zoning (focusing protection provisions on activities affecting benthic or pelagic fish, for example).

[171] *See, e.g.* NEW ZEALAND, Guidelines for creation of MPAs, TANZANIA, Marine Parks & Protected Areas Act, 1993.

[172] GFCM, Report of the 29th Session, at page 38.

may enter an MPA, so that data from surveillance alone will be sufficient to create a basis for action -- a *prima facie* case which the vessel must disprove. It must also consider that some violators cannot be identified solely from surveillance data, and satisfy "due process" principles, including:

- ensuring that vessels have access to data about the restrictions and the restricted areas apply;
- identifying those vessels and users who may be exempt from these requirements (indigenous traditional fishermen, for example) and justifying those exemptions;
- ensuring that the shift of the burden of proof (requiring the user/vessel to prove that his action was legal, once the *prima facie* case is established) is valid and not a denial of civil rights;
- creating standards for the satellite evidence – requiring that it be is sufficiently detailed and clear to demonstrate not only location, but violation of the law, etc.

In many cases, the most effective draftsmen focus on what may be proven. For example, a prohibition on capturing marine turtles may be more difficult to enforce than one which punishes possession, sale, or purchase of marine turtles or their parts. The latter can be proven by illegal material found on the person, vessel, vehicle or private property, or on the market. By contrast, to successfully enforce a prohibition on capture, the arresting officers must have seen the actual capture. Similarly, in marine protected areas, it may be easier to enforce a provision limiting the possession of certain kinds of fishing equipment within an MPA than one which prohibits 'fishing in an MPA."[173]

3.2.4 Additional concerns in deeper water

Nationally and internationally, discussions are increasingly focused on the designation of MPAs in deeper waters (EEZs, the OCS, waters above the OCS, the high seas and the Area). For these zones, it may be necessary to develop new types of legal tools (hard and soft), based on different paradigms.

Within EEZs, a limited number of MPAs have been declared, but so far, most of these have been by developed countries.[174] It is not entirely clear why EEZ-MPAs have not generally been declared in developing countries, however the author suggests a combination of (i) lack of capacity/infrastructure to oversee/enforce, and (2) the fact that the prevailing administrative and legislative approach to MPA description does not appear to apply to deeper water. Specifically, in developing countries (and some developed countries as well), the primary model of the "Marine Protected Area" continues to be a watery version of the terrestrial protected area – the limits of the area, and of zones within it are platted on a map by "metes and bounds" descriptions, for example, and regulations apply to everything from the surface to the seabed. This is most operable where the protected area is near shore (perhaps to the limits of territorial seas) – that is, within the range of most current MPAs.

This point is partially demonstrated by examination of the implementation of Canada's two MPA laws.[175] The purposes underlying MPAs in the Oceans Act are generally focused on marine issues and sustainability concerns; by contrast, the purposes (and level of protection) of MPAs under the National Marine Conservation Areas Act have been described as "more analogous to that of a [terrestrial] national park (though not as complete)."[176] As such, the NMCAA's authority has been utilised solely within territorial seas, with the Oceans Act used for EEZ areas. Comparing these two as general prototypes with national MPA legislation from developing countries, it is clear that the

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[173] SEYCHELLES, Environment Protection Act 1994 (Act No. 9 of 1994); Proposed Marine Conservation Act, 1994; and Young, T., Legislation and Institutions for Marine and Terrestrial Biodiversity Conservation and National Parks in the Seychelles (FAO, 1992-93)

[174] *See,* CANADA, Oceans Act, R.S.C. 1996, c. 31, s. 4(1). Some of the more prominent such areas include the Bowie Seamount, the Endeavour MPA, including the Juan de Fuca Ridge (hydrothermal vents), and the Gully (a deep canyon area, habitat to many marine species, including whales; NORWAY, lophelia banks; PORTUGAL, Dom João de Castro Seamount in the Azores (*see* http://www.joel.ist.utl.pt/dsor/Projects/Asimov). In addition, the Seychelles has imposed stricter conservation/sustainability motivated controls on fishing in all its EEZ areas. (Personal communication with Randolph Payet, Ministry of Fisheries).

[175] CANADA, Oceans Act, R.S.C. 1996, c. 31, s. 4(1); and National Marine Conservation Areas Act, R.S.C. 2002, c. 18

[176] Breide, C., and P. Saunders, 2005, at 70.

developing country laws examined are similar in nature, objectives, terminology, approaches and mechanisms/methodologies to the terrestrial-protected-area approach of Canada's National Marine Conservation Act.[177] This suggests that developing countries may need assistance in legislatively identifying and addressing the aspects of MPA law and practice that are different from terrestrial PAs.

Some new approaches to deep water MPAs have been proposed, however. For example, in at least two cases, single-country MPAs have been proposed where the MPA boundaries include waters within the high seas (usually superadjacent to the country's OCS).[178] Another approach, described above, is the negotiation among two or more countries, who agree to consider an area of the high seas to be protected.[179] Under both of these options, the country or countries involved agree to recognise the designated area(s) as MPAs and to take legislative and other measures to require persons, entities and vessels under their jurisdiction to recognise the MPAs and comply with restrictions and regulations that will be developed. These measures do not, in themselves, place any obligation on other countries, persons and vessels, to recognise the MPA or comply with its terms. However, the designation may trigger the requirements of UNCLOS, which call upon countries to "refrain from unjustifiable interference" with marine conservation and other measures adopted by other States.[180]

3.2.5 Penalties, fees, assessments and other requirements

A problem common to many countries is the difficulty in assessing penalty and other charges to deter violators and to provide the level of funding needed to repair or compensate for the damage caused by violations. In many cases, fines and penalties can only be set by primary legislation, hence a long and complex legislative process will be necessary to revise these amounts. In some cases, fees for services, licenses and concessions can be set by the administrative body without going to Parliament, but this is not universally true.

Two primary related problems here are (1) ensuring that the penalties and assessments are large enough that they deter illegal behaviour, including by foreign persons or vessels whose financial resources are larger and might be undeterred by penalties directed at local users; and (2) creating a basis or standard for assessing local users at a different rate than that applicable to foreign users. Particularly, in the case of fees and assessments, there is a dual purpose – funding and compliance – and the need to ensure that the agencies' desire for funds does not lead them to issuing an unsustainable number of licenses.

Another essential legislative issue here relates to the assessment of the costs of remedy, or reimbursement of the value of harm, where a user or other person or vessel causes damage to natural resources. The actual decision to claim such amounts depends on a number of political and other factors, however, it is usually important for the law to enable such assessments. This will usually require the development of both a restoration-cost-based civil claim, and a criminal penalty.

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[177] *See,e.g.* SOUTH AFRICA, Marine Living Resources Act, Act18/1998, at §43 (authorizing only two-dimensional boundaries for MPAs, and prohibiting a full range of activities ('fishing, other biodiversity collection, pollution, construction or 'any activity which may adversely impact on ecosystems of that area') within any designated marine protected area.

[178] E.g. CANADA, proposal for the Grand Banks MPA (Breide, C., and P. Saunders 2005); UNITED KINGDOM, general discussion in DEFRA, 2004. In addition, some MPAs in the Mediterranean are believed by some to be 'high-seas' MPAs, because most Mediterranean countries have not adopted EEZs. (*See* Chevalier, C. (2004); *and* Scovazzi, T., ed., 1999).

[179] *See,* RMS Titanic Agreement and UNESCO Convention on the Protection of Underwater Cultural Heritage. One MPA, which may be considered to be a "high seas" MPA, is the Pelagos Sanctuary declared by France, Monaco and Italy (described in Notabartolo, G, 1999). This MPA is entirely within the area which would be included in the EEZs of those three countries, however. In addition, proposals by regional instruments and processes technically fall within this category, to the extent that the regional body seeks to apply its designations to waters outside of its members national EEZs and/or to seabed areas beyond national OCSs. A number of such proposals have been floated at recent OSPAR meetings.

[180] UNCLOS, Articles 117, 194.4.

3.2.6 Financial, logistical, networking and capacity issues

Finally, although no law can force budgetary allocations or obtain equipment or training, it can be an important tool in enabling them (or a difficult obstacle). In most countries, it is not reasonable to expect MPAs to be self-supporting, however, where permitted, legislation will usually include try to allow the MPA to retain amounts received from licenses, concession payments, compounded penalties, and civil awards for damage to the MPA. Sometimes mechanisms can enable direct donor assistance to be received and utilised by the MPA (otherwise allowed under general financial laws). [181]

In many cases, greater concern relates to the availability of equipment and manpower for particular purposes, especially patrolling (and/or apprehending violators) on the ocean. While some of these issues can be addressed by mandate to police and coast guard regarding their duties in enforcing these laws, such provisions cannot alter enforcement priorities, which may place greater emphasis on controlling smuggling or other criminal behaviour, above that of enforcing conservation laws. Alternatives exist, but are not always effective. The empowerment of MPA officials to engage in these activities will not overcome the lack of budget, the need to train these officials in evidentiary collection practices, and the need to address the risk that violators may be armed or violent.[182]

These issues have been confronted by the Seychelles in developing, adopting and implementing their national marine conservation regulations. Those measures include legally valid and effective authorisation to take appropriate action to oversee and enforce geo-local protection measures in its EEZ. Unfortunately, however, budgetary and other limitations have made these measures virtually ineffective in practice. The primary mechanism utilised to date has been apprehending Seychelles vessels returning to shore with unlicensed catches or species not found outside of controlled areas.[183]

Information exchange is essential, and often may occur through international instruments. These services can be thwarted by national legal provisions and processes. At the national level, for example, agencies often must obtain express high-level authority to share information (which might be a valuable commodity and sovereign property of the country). This approval can be so difficult and time consuming that it is ultimately not undertaken. Such provisions often need re-evaluation. At the same time, national legislation could incorporate key informational services created under national law. For example, the High Seas Vessels Authorization Record (HSVAR) database created under FAO Fisheries "Compliance Agreement," may be an important tool in licensing and other MPA implementation processes. [184] Similarly, the Clearinghouse Mechanism (CHM) under the CBD[185] can provide useful information on national and regional marine conservation activities and laws.

4. CONCLUSIONS: PROVIDING TECHNICAL GUIDANCE FOR MPA LEGISLATION

As noted above, a variety of legal and legislative issues can be usefully addressed in the Proposed Guidance, and in the process of its development. Issues have been identified, in many contexts.

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[181] In Tanzania, the Mafia Island Marine Park was able to overcome serious challenges arising out of budgetary shortfalls preventing the acquisition of equipment needed to patrol fishing in the area. Ultimately, NGO support and a positive collaboration with local residents and artisanal fishermen have yielded positive results. Source: official website (http://www.mafia-island-tanzania.gold.ac.uk/ecology/) supported by the IUCN-WCPA-Marine/WWF's MPA management effectiveness project (described at http://effectivempa.noaa.gov/sites/mafia.html)

[182] Incidence of substantial crimes involving the capture and sale of endangered species have been increasing, in part because these commodities are relatively high value, and the penalties are significantly less severe than those imposed for trafficking in drugs, for example. However, as this kind of crime becomes systematic and 'organised' the level of associated violence increases. *See,* IUCN Workshop on Species Trade Crimes, Cambridge, 2001.

[183] SEYCHELLES, Proposed Marine Conservation Act; and Young, 1992-3 cited in footnote 162; supplemented by Personal communication with Randolph Payet, Ministry of Fisheries.

[184] *See, e.g.* FAO Compliance Agreement, Circular State Letter (G/X/FI-30) August 2003, sent to all the States which had accepted the Agreement informing them of the entry into force, on 24 April 2003, of the Agreement and reminding them of their information sharing obligations. Article VI of the Agreement. Article VI of the Agreement requires Parties to exchange information on vessels they authorise to fish on the high seas, and obliges FAO to facilitate this information exchange.

[185] This constantly evolving database is intended to provide countries with a way to develop general knowledge of custom and practice of other countries, relating to, *e.g.* biodiversity conservation, integrated planning, and *in-situ* conservation.

4.1 Legal/legislative scope of the guidance

One initial issue to be addressed by the guidelines process with be the scope of the issues that will be covered by the Guidance – defining "marine protected area" for purposes of determining the scope of the Guidance (i.e. will the Guidance apply to areas which are formally created as "protected areas" or will it also discuss the use of other geo-located conservation measures, non-binding and/or voluntary measures?)[186] Another potentially valuable scoping and planning tool might be reconsideration of the IUCN Categories (Appendix I to this report), in terms of their use in the marine biome.

4.2 International legal mandate for MPAs

International law has two primary roles with regard to MPAs – addressing conservation beyond national control, and authorising national action.

Beyond national control – the high seas and the Area: Significant discussions are currently beginning in international forums regarding the creation of MPAs in these areas. Given that these areas are commonly held by all countries, formal designation of MPAs in these areas would be subject to international decision-making processes (international negotiations). Gaps in the international instruments and understanding suggest that the process by which such formal designations can occur will be developed through normal international negotiating processes, including possibly the current discussions on the development of an Implementing Agreement under UNCLOS.

Formal instruments, particularly at the regional level, create authority for designation of particular geo-located conservation measures, if adopted by consensus-based international processes. In addition, it is possible for countries to decide to act unilaterally (to formally announce their intention to protect an area of the high seas), however, they cannot formally bind other countries, unless those countries also formally take such action.

Within national control – territorial seas, EEZ and OCS: International law does not mandate the creation of national MPAs, but includes national commitments regarding conservation and sustainable use of marine biological resources and ecosystems (under various names). MPAs are thus a possible, but not a mandatory, means of achieving these broader aims.

For the Guidance, the most important legal elements regarding the international regime are:

- Listing, describing and suggesting the process relating to available options for States wishing to individually or collectively designate and implement MPAs in the various ocean zones.
- Specifying the legal rights and duties under the international oceans framework that limit the ability of any state or group of states to declare MPAs in the various ocean zones.
- Considering options and suggestions for international cooperation, participation and enforcement, and the tools and mechanisms for national legislative implementation.
- Analysing open issues relating to MPAs under the international oceans framework focused on whether and how they impact national and regional/cooperative actions and options.

It will be particularly important to specify the extent of the Guidance's interest in high-seas MPAs and MPAs in the Area. These issues have obscured other MPA issues in international discussions[187]

[186] This paper does not discuss legal/procedural issues related to the creation, adoption and promulgation of the Guidance.
[187] Note, for example, the number of primary research materials listed in the Specialised Bibliography which according to their titles focus on the High seas. The author attempted to find legal analysis of conservation issues under the ocean regime, and this sampling is more than representative – if anything it includes a lower percentage of high-seas papers than exists.

4.3 National legal and legislative issues and practices

The drafting of MPA laws and protections are, in some ways, very straightforward, once objectives and mandates from the national government are clarified, and the legislative framework's functions are designed. The design of the framework must be individualised, reflecting the national (or subnational) situation.

Given its situational requirements, national MPA legislation probably cannot be addressed through model laws or generic statements of what constitutes "good legislation." However, Guidance can provide a range of options and discuss particular factors that might suggest that one option is preferable over another, in a given country. While the outline of this guidance may be approached in several ways, the outline of Section 3.2 of this paper might provide a useful starting point:

- Institution(s): Selection and Authorisation
- Procedures and Civil Protections
- Specific Duties, Restrictions, Controls and Processes
- Additional Concerns in Deeper Water
- Penalties, Fees, Assessments and Other Requirements
- Financial, Logistical, Networking and Capacity Issues

The Guidance could also provide indicators of excellent legislation, including –

- Clear and direct legal authority/mandate;
- Status of current framework and potential of improvement or better utilisation of existing instruments as opposed to creating a new framework;
- Relationship between the mandate and the nature of the provisions selected (binding, non-binding, mandatory, voluntary, etc.);
- Direct connection between proposed legal approaches and priority/practical objectives;
- Strong commitment to scientific analysis and monitoring to validate that connection;
- Logistical ability to deliver the actions and outcomes necessary to make that connection (*i.e.* to enforce the law or support other kinds of mandates);
- Support and/or acceptance by relevant community and stakeholder groups; and
- Reasonable financial expectations with regard to those logistical matters.

One final essential element of legal guidance is a practical and legal examination of the value and utilisation of hard-law (legislation) vs. soft-law (including voluntary codes of conduct, non-mandatory provisions, incentive programmes, etc.). A wide range of such options are available, which may be used in any combination (making some elements of the overall regime voluntary and others mandatory). Given current limitations on the ability of states or regional/global bodies to enforce many MPA-related provisions, the practical value of voluntary approaches, particularly as initial measures, may be essentially equal to that of formally adopted mandatory measures.

Finally, it is important to remember that laws and legal systems are intended to facilitate human interactions with other humans and with their surroundings. As such, the law is an evolving construct, which has experienced dramatic, and constantly accelerating levels of change as population and technology have engendered exponential increases to the types of stresses which humans place on themselves (e.g. through the development and growth of urban areas and lifestyles) and on their environment.

ANNEX 1: SPECIALISED BIBLIOGRAPHY

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ANNEX 2: IUCN PROTECTED AREA MANAGEMENT CATEGORIES

Source: Guidelines for Protected Area Management Categories (1994)

CATEGORY la Strict Nature Reserve: protected area managed mainly for science

Definition

Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

Objectives of Management

- to preserve habitats, ecosystems and species in as undisturbed a state as possible
- to maintain genetic resources in a dynamic and evolutionary state
- to maintain established ecological processes
- to safeguard structural landscape features or rock exposures
- to secure examples of the natural environment for scientific studies, environmental monitoring and education, including baseline areas from which all avoidable access is excluded
- to minimise disturbance by careful planning and execution of research and other approved activities, and
- to limit public access.

Guidance for Selection

- The area should be large enough to ensure the integrity of its ecosystems and to accomplish the management objectives for which it is protected.
- The area should be significantly free of direct human intervention and capable of remaining so.
- The conservation of the area's biodiversity should be achievable through protection and not require substantial active management or habitat manipulation (c.f. Category IV).

Organizational Responsibility

Ownership and control should be by the national or other level of government, acting through a professionally qualified agency, or by a private foundation, university or institution which has an established research or conservation function, or by owners working in cooperation with any of the foregoing government or private institutions. Adequate safeguard and controls relating to long-term protection should be secured before designation. International agreements over areas subject to disputed national sovereignty can provide exceptions (e.g. Antarctica).

Equivalent Category in 1978 System

Scientific Reserve / Strict Nature Reserve

CATEGORY Ib Wilderness Area: protected area managed mainly for wilderness protection

Definition
Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

Objectives of Management
- to ensure that future generations have the opportunity to experience understanding and enjoyment of areas that have been largely undisturbed by human action over a long period of time;
- to maintain the essential natural attributes and qualities of the environment over the long term;
- to provide for public access at levels and of a type which will serve best the physical and spiritual well-being of visitors and maintain the wilderness qualities of the area for present and future generations; and
- to enable indigenous human communities living at low density and in balance with the available resources to maintain their life style.

Guidance for Selection
- The area should possess high natural quality, be governed primarily by the forces of nature, with human disturbance substantially absent and be likely to continue to display those attributes if managed as proposed.
- The area should contain significant ecological, geological, physiogeographic, or other features of scientific, educational, scenic or historic value.
- The area should offer outstanding opportunities for solitude, enjoyed once the area has been reached, by simple, quiet, non-polluting and non-intrusive means of travel (i.e. non-motorised).
- The area should be of sufficient size to make practical such preservation and use.

Organizational Responsibility
As for Sub-Category Ia.

Equivalent Category in 1978 System
This sub-category did not appear in the 1978 system, but has been introduced following the IUCN General Assembly Resolution (16/34) on Protection of Wilderness Resources and Values, adopted at the 1984 General Assembly in Madrid, Spain.

CATEGORY II National Park: protected area managed mainly for ecosystem protection and recreation

Definition
Natural area of land and/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for present and future generations, (b) exclude exploitation or occupation inimical to the purposes of designation of the area and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

Objectives of Management
- to protect natural and scenic areas of national and international significance for spiritual, scientific, educational, recreational or tourist purposes;
- to perpetual, in as natural a state as possible, representative examples of physiographic regions, biotic communities, genetic resources, and species, to provide ecological stability and diversity;
- to manage visitor use for inspirational, educational, cultural and recreational purposes at a level which will maintain the area in a natural or near natural state;
- to eliminate and thereafter prevent exploitation or occupation inimical to the purposes of designation;
- to maintain respect for the ecological, geomorphologic, sacred or aesthetic attributes which warranted designation; and
- to take into account the needs of indigenous people, including subsistence resource use, in so far as these will not adversely affect the other objectives of management.

Guidance for Selection
- The area should contain a representative sample of major natural regions, features or scenery, where plant and animal species, habitats and geomorphological sites are of special spiritual, scientific, educational, recreational and tourist significance.
- The area should be large enough to contain one or more entire ecosystems not materially altered by current human occupation or exploitation.

Organizational Responsibility
Ownership and management should normally be by the highest competent authority of the nation having jurisdiction over it. However, they may also be vested in another level of government, council of indigenous people, foundation or other legally established body which has dedicated the area to long-term conservation.

Equivalent Category in 1978 System
National Park

CATEGORY Ill Natural Monument: protected area managed mainly for conservation of specific natural features

Definition
Area containing one, or more, specific natural or natural/cultural feature which is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities or cultural significance.

Objectives of Management
- to protect or preserve in perpetuity specific outstanding natural features because of their natural significance, unique or representational quality, and/or spiritual connotations;
- to an extent consistent with the foregoing objective, to provide opportunities for research, education,
- interpretation and public appreciation;
- to eliminate and thereafter prevent exploitation or occupation inimical to the purpose of designation; and
- to deliver to any resident population such benefits as are consistent with the other objectives of management.

Guidance for Selection
- The area should contain one or more features of outstanding significance (appropriate natural features include spectacular waterfalls, caves, craters, fossil beds, sand dunes and marine features, along with unique or representative fauna and flora; associated cultural features might include cave dwellings, cliff-top forts, archaeological sites, or natural sites which have heritage significance to indigenous peoples).
- The area should be large enough to protect the integrity of the feature and its immediately related surroundings.

Organizational Responsibility
Ownership and management should be by the national government or, with appropriate safeguards and controls, by another level of .government, council of indigenous people, non-profit trust, corporation or, exceptionally, by a private body, provided the long-term protection of the inherent character of the area is assured before designation.

Equivalent Category in 1978 System
Natural Monument / Natural Landmark

CATEGORY IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention

Definition
Area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species.

Objectives of Management
- to secure and maintain the habitat conditions necessary to protect significant species, Levels of species, biotic communities or physical features of the environment where these require specific human manipulation for optimum management;
- to facilitate scientific research and environmental monitoring as primary activities associated with sustainable resource management;
- to develop limited areas for public education and appreciation of the characteristics of the habitats concerned and of the work of wildlife management;
- to eliminate and thereafter prevent exploitation or occupation inimical to the purposes of designation; and
- to deliver such benefits to people living within the designated area as are consistent with the other objectives of management.

Guidance for Selection
- The area should play an important role in the protection of nature and the survival of species, (incorporating, as appropriate, breeding areas, wetlands, coral reefs, estuaries, grasslands, forests or spawning areas, including marine feeding beds).
- The area should be one where the protection of the habitat is essential to the well-being of nationally or locally-important flora, or to resident or migratory fauna.
- Conservation of these habitats and species should depend upon active intervention by the management authority, if necessary through habitat manipulation (c.f. Category Ia).
- The size of the area should depend on the habitat requirements of the species to be protected and may range from relatively small to very extensive.

Organizational Responsibility
Ownership and management should be by the national government or, with appropriate safeguards and controls, by another level of government, non-profit trust, corporation, private Level or individual.

Equivalent Category in 1978 System
Nature Conservation Reserve / Managed Nature Reserve / Wildlife Sanctuary

CATEGORY V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation

Definition
Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

Objectives of Management
- to maintain the harmonious interaction of nature and culture through the protection of landscape and/or seascape and the continuation of traditional land uses, building practices and social and cultural manifestations;
- to support lifestyles and economic activities which are in harmony with nature and the preservation of the social and cultural fabric of the communities concerned;
- to maintain the diversity of landscape and habitat, and of associated species and ecosystems;
- to eliminate where necessary, and thereafter prevent, land uses and activities which are inappropriate in scale and/or character;
- to provide opportunities for public enjoyment through recreation and tourism appropriate in type and scale to the essential qualities of the areas;
- to encourage scientific and educational activities which will contribute to the long term well-being of resident populations and to the development of public support for the environmental protection of such areas; and
- to bring benefits to, and to contribute to the welfare of, the local community through the provision of natural products (such as forest and fisheries products) and services (such as clean water or income derived from sustainable forms of tourism).

Guidance for Selection
- The area should possess a landscape and/or coastal and island seascape of high scenic quality, with diverse associated habitats, flora and fauna along with manifestations of unique or traditional land-use patterns and social organisations as evidenced in human settlements and local customs, livelihoods, and beliefs.
- The area should provide opportunities for public enjoyment through recreation and tourism within its normal lifestyle and economic activities.

Organizational Responsibility
The area may be owned by a public authority, but is more likely to comprise a mosaic of private and public ownerships operating a variety of management regimes. These regimes should be subject to a degree of planning or other control and supported, where appropriate, by public funding and other incentives, to ensure that the quality of the landscape/seascape and the relevant local customs and beliefs arc maintained in the long term.

Equivalent Category in 1978 System
Protected Landscape

CATEGORY VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

Definition
Area containing predominantly unmodified natural systems, managed to ensure long term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs.

Objectives of Management
- to protect and maintain the biological diversity and other natural values of the area in the long term;
- to promote sound management practices for sustainable production purposes;
- to protect the natural resource base from being alienated for other land-use purposes that would be detrimental to the area's biological diversity; and
- to contribute to regional and national development.

Guidance for Selection
- The area should be at least two-thirds in a natural condition, although it may also contain limited areas of modified ecosystems; large commercial plantations would *not* be appropriate for inclusion,
- The area should be large enough to absorb sustainable resource uses without detriment to its overall long-term natural values.

Organizational Responsibility
Management should be undertaken by public bodies with an unambiguous remit for conservation, and carried out in partnership with the local community; or management may be provided through local custom supported and advised by governmental or non-governmental agencies. Ownership may be by the national or other level of government, the community, private individuals, or a combination of these.

Equivalent Category in 1978 System
This category does not correspond directly with any of those in the 1978 system, although it is likely to include some areas previously classified as “Resource Reserves”, “Natural Biotic Areas/Anthropological Reserves” and “Multiple Use Management Areas / Managed

ANNEX 3: NATIONAL MPA LEGISLATION SURVEYED

NOTE: The following list is not complete. In preparation of this report, other legislation was sampled and surveyed, and legislators and administrators in several countries were contacted.

This list provides a general sampling of much of the legislation copied and specifically surveyed, including both countries with many detailed laws and those without (as well as many countries for which the consultant only reviewed a few recommended laws.) Its purpose is to give the reader an idea of the breadth of different instrument types, sectoral areas and substantive approaches relevant to the current report. Had the report sought to get an accurate picture of national marine protected areas and relevant laws for any one country, the list of statutes reviewed might well be as long as the following, for that country alone.

Where laws listed below are not available in English in ECOLEX or in the ELC Library in Bonn, an official summary or discussion with national lawyers was used instead. Not all laws cited in the text are listed below.

COUNTRY OR TERRITORY	Enactment Name	Date*
ALGERIA	Legislative Decree of 28 May 1994	1994
ANGOLA	Executive Decree No. 3/83 prescribing protection measures for the "Dentex Angolensi" and "Dentex Macrophtalmus" species.	1982
ANTIGUA AND BARBUDA	Beach Control Act (Cap. 45).	
	Marine Areas (Preservation and Enhancement) Regulations, 1973 (No. 25 of 1973).	6/28/1973
	Marine Areas (Preservation and Enhancement) Act 1972 (Act No. 5).	8/5/1972
ARGENTINA	Ley Nº 55 - Regula la preservación, conservación, defensa y mejoramiento del medio ambiente.	1992
	Adelaide Dolphin Sanctuary Act 2005.	6/4/2005
	Antarctic Marine Living Resources Conservation Act 1981.	1981
	Antarctic Marine Living Resources Conservation Regulations.	
	Antarctic Marine Living Resources Conservation Regulations.	
	Environment Protection and Biodiversity Conservation Act 1999.	1999
	Environment Protection and Biodiversity Conservation Regulations 2000.	2000
	Environmental Reform (Consequential Provisions) Act 1999 (Act No. 92 of 1999).	7/16/1999
	Fisheries Act 1982.	1982
	Fisheries Management (Aquatic Reserves) Regulation 1995.	1995
	Fisheries Management (Aquatic Reserves) Regulation 2000.	2000
	Great Barrier Reef Marine Park (Aquaculture) Regulations 2000.	2000
	Great Barrier Reef Marine Park Act 1975.	1975
	Great Barrier Reef Marine Park Regulations 1983.	1983
	Marine Parks Act 1982.	1982
	Marine Parks Act 1997.	1997
	Marine Parks Act 2004.	10/12/2004
	Marine Parks Amendment Regulation (No. 1) 2006.	3/17/2006
	Marine Parks Regulation 1990.	1990
	Marine Parks Regulation 1999.	1999
BARBADOS	Coastal Zone Management Act (No. 39 of 1998).	12/18/1998
	Marine Areas (Preservation and Enhancement) Act.	
	Marine Areas (Preservation and Enhancement) (Barbados Marine Reserve) Regulations, 1981 (No. 28 of 1981).	2/16/1981

COUNTRY OR TERRITORY	Enactment Name	Date*
BELGIUM	Accord de coopération entre le Service fédéral et la Région flamande concernant la recherche sur l'influence des activités d'exploration et d'exploitation sur le Plateau continental de la Belgique sur les dépôts de sédiments et sur l'environnement marin.	12/21/2005
	Arrêté royal créant des zones de protection spéciale et des zones de conservation spéciales dans les espaces marins sous juridiction de la Belgique.	10/14/2005
	Arrêté royal créant une réserve marine dirigée dans les espaces marins sous juridiction de la Belgique et modifiant l'arrêté royal du 14 octobre 2005 créant des zones de protection spéciales et des zones de conservation spéciales dans les espaces marins sous juridiction de la Belgique.	3/5/2006
	Loi visant la protection du milieu marin dans les espaces marins sous juridiction de la Belgique.	1/20/1999
	Loi visant la protection du milieu marin dans les espaces marins sous jurisdiction de la Belgique.	
	Royal Decree on the protection of navigation, sea fishing , the environment and other essential interests in the exploration and exploitation of mineral and other non-living resources in the seabed and subsoil of the territorial sea and the continental shelf.	
BELIZE	Fisheries Act (Chapter 210).	
	Fisheries (Bacalar Chico Marine Reserve) Regulations, 2001 (S.I. No. 68 of 2001).	4/26/2001
	Fisheries (Gladden Spit and Silk Cayes Marine Reserve) Regulations (S.I. No. 95 of 2003).	7/5/2003
	Fisheries (Glovers Reef Marine Reserve) Regulations 1996 (S.I. No. 70 of 1996).	5/18/1996
	Fisheries (Hol Chan Marine Reserve)(Amendment) Regulations, 1999 (S.I. No. 101 of 1999).	9/18/1999
	Fisheries (Port Honduras Marine Reserve) Regulations (S.I. No. 18 of 2000).	8/19/2000
	Hol Chan Marine Reserve Regulations.	
BERMUDA (UK)	Fisheries Act 1972.	1972
	Marine Board (Dolphin Habitat) (Prohibited Area) Notice 1997.	1997
	Protected Waters (Castle Harbour) Act 1951.	1951
BRAZIL	Decree No. 1.204 creating the Coastal Zone Protection Committee within the State of Rio de Janeiro - CODEL.	10/7/1987
	Decree No. 5382 approving the VI Plan for Maritime resources Â– VI PSRM.	3/3/2005
	Order No. N-6 prohibiting fishing activity in protected area of 'Taim' in the State of Rio Grande do Sul.	2/2/1983
CANADA	Act respecting the Ministère de l'Environnement et de la Faune (chapter M-15.2.1).	6/17/1994
	Fish and Wildlife Act (Chapter F-14.1).	
	Natural Resources Act.	
	Oceans Act.	
	National Parks Fishing Regulations (C.R.C., C. 1120).	8/31/1999
	National Parks Fishing Regulations.	4/30/2000
	Wildlife Area Regulations.	4/30/2000
CAYMAN ISLANDS (UK)	Marine Conservation Law, 1978.	1978
	Marine Conservation (Amendment) Regulations, 1988.	5/31/1988
	Marine Conservation (Marine Parks) (Amendment) Regulations, 1986.	4/29/1986
	Marine Conservation (Marine Parks) Regulations, 1986.	2/18/1986

COUNTRY OR TERRITORY	Enactment Name	Date*
CHILE	Ley Nº 19.800 - Modifica la Ley General de Pesca y Acuicultura.	4/22/2002
	Decreto Nº 117 - Modifica el Reglamento sobre parques marinos y reservas marinas de la Ley General de Pesca y Acuicultura.	4/10/2006
	Decreto Nº 123 - Medidas de conservación adoptadas por la Comisión para la Conservación de los Recursos Vivos Marinos Antárticos en su XIX reunión de 2000.	2/1/2001
	Decreto Nº 19 - Medidas de conservación adoptadas por la Comisión para la Conservación de los Recursos Vivos Marinos Antárticos en su XVII reunión de 1998.	1/12/1999
	Decreto Nº 2.186 - Medidas de conservación adoptadas por la Comisión para la Conservación de los Recursos Vivos Marinos Antárticos en su XVIII reunión de 1999.	12/13/1999
	Decreto Nº 238 Â– Reglamento sobre parques marinos y reservas marinas de la Ley General de Pesca y Acuicultura.	9/16/2004
	Decreto Nº 287 - Medidas de conservación adoptadas por la Comisión para la Conservación de los Recursos Vivos Marinos Antárticos en su XVI reunión de 1997.	2/27/1998
COOK ISLANDS (New Zealand)	Environment Act 2003 (No. 23 of 2003).	11/19/2003
COSTA RICA	Ley Nº 7.317 - Conservación de la vida silvestre.	10/30/1992
CROATIA	Zone of Ecological Protection and Fisheries	12/3/2003
CUBA	Decreto Ley Nº 212 - Gestión de la zona costera.	8/8/2000
DENMARK	Environment Aims Act (Act No. 1150 of 2003).	12/17/2003
	Act on the Protection of the Marine Environment.	
	Environment Aims Act (Act No. 1150 of 2003).	12/17/2003
	Royal Decree of 21 December 1966 on delimitation of the territorial sea (No. 19).	
	Law No. 597 on the Fishing Territory of the Kingdom of Denmark.	12/17/1976
	Decree No. 129 amending decree regulating the inspection of fisheries in the waters around the Faeroe Islands.	3/18/1976
FAEROE ISLANDS (Denmark); DENMARK	Decree amending the Decree regulating the inspection of fisheries in the waters around the Faeroe Islands (No. 129 of 1976).	3/18/1976
	Decree governing delimitation of the territorial waters of the Faeroe Islands (Decree No. 128 of 1976).	3/18/1976
ECUADOR	Resolución Nº 33 - Protocolo de desinfección de barcos que ingresan a la provincia de Galápagos e Interislas.	11/1/2005
FRANCE	Loi nº 2003-346 relative à la création d'une zone de protection écologique au large des côtes du territoire de la République .	5/22/1985
	Loi nº 86-2 relative à l'aménagement, la protection et la mise en valeur du littoral.	1/3/1986
	Décret n° 2004-33 portant création d'une zone de protection écologique au large des côtes du territoire de la République en Méditerranée.	1/8/2004
	Décret n°86-1252 relatif au contenu et à l'élaboration des schémas de mise en valeur de la mer.	12/5/1986
FRANCE; FRENCH GUIANA (Fr.)	Loi nº 2006-436 relative aux parcs nationaux, aux parcs naturels marins et aux parcs naturels régionaux.	4/14/2006
FRANCE; GUADELOUPE; MARTINIQUE; RÉUNION; MAYOTTE; NEW CALEDONIA; FRENCH POLYNESIA; WALLIS-FUTUNA ISLANDS	Décret portant création du comité de l'initiative française pour les récifs coralliens.	7/7/2000
FRANCE; MARTINIQUE (France)	Arrêté relatif aux réserves de chasse maritime (extrait).	10/14/1976
GUADELOUPE (France); MARTINIQUE (France); RÉUNION (France); GUYANA	Loi nº 96-1241 relative à l'aménagement, la protection et la mise en valeur de la zone dite des cinquante pas géométriques dans les départements d'outre mer.	12/30/1996

COUNTRY OR TERRITORY	Enactment Name	Date*
GREECE	Ministerial Decision No. YPPO/ARX/A1/F43/21084/1003 establishing a marine area in the island of Trafos (Crete) as archaeological zone.	5/19/2000
	Ministerial Decision No. YPPO/ARX/A1/F43/21086/1004 establishing a marine area in the island of Crete as archaeological zone.	5/19/2000
	Ministerial Joint Decree No. 18670/777 establishing measures for the protection of the "Caretta-Caretta" turtle.	2/29/1988
	Presidential Order prohibiting fishing in the marine area of Fanari.	2/7/2000
HAITI	Décret du 4 avril 1944 déclarant "zone réservée" toute l'étendue nationale comprise dans les limites des Iles de la Gonâve et de la Tortue.	4/4/1944
INDONESIA	Ordinance on Territorial Waters and Maritime Zones, 1939.	8/18/1939
ITALY	Agreement between the National Government, the Regions and the Autonomous Provinces in matter of concessions relating to the maritime domaine and maritime areas falling within protected marine areas.	7/14/2005
JAMAICA	Beach Control Act.	
	Natural Resources (Marine Parks) Regulations, 1992 (S.R. No. 41B).	6/5/1992
	Wild life Protection Act.	
LEBANON	Resolution No. 129/1 creating a protected marine area within the territory of the Institute of Marine Sciences and Fishing in the region of Albatroun, and clarifying Resolution No. 242/1 of August 1975 regarding the cooperation between the Institute of Marine Sciences and Fishing and the General Department for Professional and Technical Education.	10/23/1991
LIBYAN ARAB JAMAHIRIYA	Declaration of a Libyan protected fishing area in the Mediterranean Sea.	2/24/2005
MALAYSIA	Fisheries Act 1985 (No. 317 of 1985).	1985
	Malaysian Maritime Enforcement Agency Act No. 633 of 2004.	6/25/2004
	Establishment of Marine Parks Malaysia (Amendment) Order 1998	1998
MAURITIUS	Maritime Zones Act 2005 (Act No. 2 of 2005).	2/28/2005
	Wildlife and National Parks Act 1993 (No. 13 of 1993).	3/1/1994
	Fisheries and Marine Resources (Marine Protected Areas) Regulations 2001.	2001
NEW ZEALAND	Antarctic Marine Living Resources Act 1981 (No. 53 of 1981).	1981
	Antarctica (Environmental Protection) Act 1994 (Act No. 119 of 1994).	12/6/1994
	Antarctica Act 1960.	1960
	Conservation Act.	
	Conservation Law Reform Act (No. 31 of 1990).	4/10/1990
	Foreshore and Seabed Endowment Revesting Act (No. 103 of 1991).	10/3/1991
	Harbour Boards Dry Land Endowment Revesting Act (No. 104 of 1991).	10/3/1991
	Hauraki Gulf Marine Park Act 2000.	2000
	Marine Mammals Protection Act 1978 (No. 80 of 1978).	1978
	Marine Reserves Act (No. 15 of 1971).	1971
NORWAY	Antarctic Environment Protection Decree (No. 408 of 1995).	5/5/1995
	Decree No. 299 of 1999 relative to protection of the coral reef.	1999
SVALBARD (Norway)	Act No. 79 of 2001 relative to environment protection on Svalbard.	6/15/2001
	Decree No. 3780 of 1973 relative to establishment of bird reserves and large nature conservation areas on Svalbard.	1973
PERU	Decreto Supremo Nº 023/01/PE - Reglamento de las concesiones para el desarrollo de la maricultura en la Reserva Nacional de Paracas.	6/1/2001
	Decreto Supremo Nº 028/01/PE - Prohíbe extracción de recursos mediante pesca de rodeo en el ecosistema del manglar.	7/3/2001
	Ley Nº 27.870 - Ley del Instituto Antártico Peruano (INANPE).	11/18/2002
	Resolución Nº 172/91/PE - Delimita una zona adyacente a la costa peruana de 0 a 5 millas marinas como zona de protección de la flora y fauna existentes.	5/14/1991

COUNTRY OR TERRITORY	Enactment Name	Date*
PHILIPPINES	Philippine Environment Code.	6/6/1988
SAINT LUCIA	Parks and Beaches Commission Act, 1983 (Act No. 4 of 1983).	3/16/1983
SAINT VINCENT GRENADINES	Marine Parks Act, 1997 (No. 9 of 1977).	11/19/1997
SAMOA	Lands, Surveys and Environment Act 1989.	1989
SENEGAL	Décret portant création d'aires marines protégées.	11/4/2004
	Arrêté nº 7164 portant règlement intérieur du parc national des Iles de la Madeleine.	1/16/1976
	Décret n° 76-033 portant création du parc national des Iles de la Madeleine.	1/16/1976
SEYCHELLES	Seychelles Maritime Zones Act, 1999 (Act No. 2 of 1999).	3/25/1999
	Environment Protection Act 1994 (Act No. 9 of 1994).	9/28/1994
	Seychelles Fishing Authority (Establishment) Act 1984 (No. 10 of 1984).	8/28/1984
	Conservation of Marine Shells Act, 1981	6/3/1905
	Marine Mammals Sanctuary Decree 1979	6/1/1905
	Licences Act 1986 (Act No. 3 of 1986).	8/27/1986
	Agricultural and Fisheries (Incentives) Act, 2005 (No. 3 of 2005).	
	National Parks and Nature Conservancy Ordinance	
	Fisheries (Spear-guns) Regulations, 1972	5/25/1905
	Green Turtles Protection Regulations, 1976 (S.I. No. 43 of 1967).	5/20/1905
	Green Turtles Protection (Amendment) Regulations, 1976 (S.I. No. 51 of 1977).	5/30/1905
	National Parks and Nature Conservancy (Procedure for Designation of Areas) Regulations (S.I. No. 110 of 1971).	5/24/1905
	St. Anne Marine National Park Regulations (S.I. No. 58 of 1973).	5/26/1905
	Port Launay Marine National Park Regulations 1981 (S.I. 9 of 1981).	1/27/1981
	St. Anne Marine National Park Regulations (S.I. No. 58 of 1973).	1973
SOUTH AFRICA	Environment Conservation Act (No. 73 of 1989).	1989
	Marine Living Resources Act.	1998
SPAIN	Royal Decree no. 1315/1997, modified by Royal Decree no. 431/2000	2000
SWAZILAND	National Trust Commission Act, 1972.	1972
TANZANIA, Un. Rep. of	Marine Parks and Reserves Act, 1994 (Act No. 29 of 1994).	1/17/1995
	Marine Parks and Reserves (Declaration) Regulations, 1999 (G.N. No. 85 of 1999).	3/2/1999
UNITED KINGDOM	Environment Act 1995 (Chapter 25).	7/19/1995
	Coast Protection Act, 1949 (Cap. 74).	11/24/1949
	Antarctic Regulations (S.I. No. 490 of 1995).	2/20/1995
	Designation of Nitrate Vulnerable Zones (Scotland) Regulations 2002 (S.S.I. No. 276 of 2002).	6/6/2002
	Habitat (Salt Marsh) (Amendment) Regulations 1996 (S.I. No. 1479 of 1996).	6/6/1996
	Shellfish (Specified Sea Area) (Prohibition of Fishing Methods) (Wales) Order 2003 (S.I. No. 607 (W. 81) of 2003).	3/6/2003
	Solent European Marine Site (Prohibition of Method of Dredging) Order 2004 (S.I. No. 2696 of 2004).	10/19/2004
ZAMBIA	International Game Park and Wildlife Act.	
	National Parks and Wildlife (Bird Sanctuaries) Regulations.	
	National Parks Regulations.	
ZIMBABWE	Parks and Wild Life Act [Chapter 20:14].	
	Parks and Wildlife (General) Regulations, 1981 (S.I. No. 900 of 1981).	1980

ANNEX 4: LIST AND CHART OF REGIONAL INSTRUMENTS RELATING TO MARINE AREAS

Source: Compiled in 2002 and revised and updated twice (including January 2006, for inclusion in this Review Report)[1]

Other Key Instruments	(Formal agreements (hard and soft) only -- action plans and other operational documents not listed)			
Instrument Title	**Reference Title / Acronym**	**Description**	**Scope/Mandate**	**Comment**
Global Instruments				
Agenda 21: Economic and Development Agenda	Agenda 21	A comprehensive action plan for the environment and development. Article 17 addresses marine issues, and is the only portion reproduced in the materials. It identifies a full range of issues that must be addressed in an integrated or interrelated way, in order to ensure the health, stability and sustainability of the ecosystems, species and the global environment.	Global	Soft law
Agreement Concerning Cooperation in Marine Fishing	Fishing Co-operation	The development of marine fishing, fishing techniques and fish processing technology and scientific research into the condition of live marine resources and cooperation in the development of fishing in the open sea, on practical matters relating to the organization of fishing, on the exchange the results of exploration for new fishing grounds and other research. [Preamble, Article 1]	Global	
Agreement relating to the Implementation of Part XI of UNCLOS	ISA Agreement	Includes basic structures for separate international governance of the ISA, under and in accordance with UNCLOS. Empowers rulemaking and other activities, through separate but consistent structural arrangements.	Global	
Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas	FAO Compliance Agreement	The Agreement establishes a broad obligation on flag states to adopt measures as may be necessary to ensure that their flag vessels do not engage in activities that undermines the effectiveness of international conservation and management measures	Global	

[1] Appendix 3 is intended to give some idea of the breadth of instruments (and thus of possibilities) at the regional and global levels. It has attempted to be comprehensive in its inclusion, however, it cannot include all of the other types of international instruments of relevance, such as the Vienna Conventions relating to the Law of Treaties and other principles of the application of international laws, the impact of conventions and processes for addressing commercial activities, and the broad range of instruments controlling or mandating various types of equipment and activities on, affecting or relating to oceans.

Convention on Biological Diversity	CBD	[See Legal Background Paper]	Global	
Convention on Fishing and Conservation of the Living Resources of the High Seas	HS Living Resources	Pre-UNCLOS instrument on HS biological resource conservation issues. Largely superceded but not repealed by UNCLOS.	Global	Still in force as to signatories who are not bound by UNCLOS
Convention on International Trade in Endangered Species of Fauna and Flora	CITES	[See Legal Background Paper]	Global	
Convention on Migratory Species	CMS	[See Legal Background Paper]	Global	
Convention on the Continental Shelf	Continental Shelf	Pre-UNCLOS instrument on rights in the continental shelf. Largely superceded but not repealed by UNCLOS.	Global	Still in force as to signatories who are not bound by UNCLOS
Convention on the Law of the Non-navigational Uses of International Watercourses	Watercourses	Regulating the uses of watercourses which cause impacts beyond national boundaries, including by particular attention to co-operation for the creation of regional watercourse agreements, using the principle of "equitable and reasonable utilisation. Most provisions limited to the watercourse itself, and to effects and concerns of "other watercourse states."	Global	Not in force
Convention on the Liability of Operators of Nuclear Ships	CLONS	IMO Convention, Would set uniform liability provisions for nuclear damage caused by ships operating on nuclear power.	Global	Not in force
Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter, (and 1996 Protocol.)	London Convention	A system to regulate ocean dumping, originally identifying three categories of waste (prohibited, special permit, and general permit). The 1996 Protocol will, when in force, prohibit all at-sea incineration of wastes, waste storage in the seabed, and all other waste dumping, except for a "reverse list" of substances that may be dumped at sea.	Global	1996 Protocol not in force
Convention on the Territorial Sea and the Contiguous Zone	Territorial Sea	Pre-UNCLOS instrument on national rights and duties with regard to Territorial Seas. Largely superceded but not repealed by UNCLOS.	Global	Still in force as to signatories who are not bound by UNCLOS

Declaration of Principles Governing the Sea Bed and the Ocean Floor and the Subsoil Thereof, Beyond the Limits of National Jurisdiction	Sea Bed Principles	UNGA Resolution on Sea Bed issues	Global	Soft law
Declaration of the United Nations Conference on the Human Environment	Stockholm Declaration	Enunciates basic principles relating to conservation and its relation to the quality of human life.	Global	Soft law
Declaration of the World Summit for Sustainable Development	WSSD Declaration	[See Legal Background Paper]	Global	Soft law
FAO Code of Conduct for Responsible Fisheries (FAO-CRF)	FAO-CCRF	Designed to *inter alia,* "establish principles, in accordance with relevant rules of international law, for responsible fishing and fisheries activities, taking into account all relevant biological, technological, economic, social, environmental and commercial aspects," as well as to serve as an instrument of reference "to help States establish or improve the legal and institutional framework required for the exercise of responsible fisheries and the formulation of appropriate measures" and to provide guidance in "the formulation... of international l agreements and other instruments both binding and voluntary."	Global	Soft law
Guidelines: Designation of Special Areas Under MARPOL 73/78 and Identification and Designation of Particularly Sensitive Sea Areas	PSSA Guidelines	These Guidelines implement MARPOL provisions for designation of areas of special care and/or limited passage in shipping/navigation, based on a variety of factors including *inter alia* consideration of ecological (species, habitat and ecosystem) and oceanographic factors, but giving due consideration of "vessel traffic characteristics."	Global	IMO Guidelines
International Convention for the Prevention of Marine Pollution from Ships, 1973 as modified by the Protocol of 1978 relating thereto	(MARPOL 73/78)	Direct international agreement on pollution from ships, with a primary focus on "operational" pollution (as opposed to accidental. Supported by numerous agreements and protocols.	Global	
International Convention for the Regulation of Whaling	IWC	Designed as a "fisheries management"-type convention, to oversee whaling activities worldwide. Has been under a moratorium on all whaling (apart from aboriginal subsistence whaling, that conducted for scientific purposes, and that undertaken within national jurisdiction) since 1982 when, because of uncertainties in the scientific analyses and inability to determine the precise status of the various whale stocks, the IWC decided that there should be a pause in commercial whaling on all whale stocks beginning in 1985/86. That moratorium still continues.	Global	

International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances By Sea	HNS Convention	IMO convention addressing compensation standards for incidents involving the discharge of hazardous or noxious substances.	Global	Not in force
International Convention on Oil Pollution Preparedness, Response and Co-operation	Oil Preparedness	An agreement, negotiated in response to the Exxon Valdez incident, regarding the kind of advance measures that should be required of ships, in order to be prepared for prompt response in the event of oil pollution incidents, as well as for prompt reporting of such incidents.	Global	
International Convention on Salvage	Salvage	IMO convention addressing the application of maritime and international law of salvage.	Global	
Kyoto Protocol to UNFCCC	Kyoto	Implements a key component of the a carbon accounting system by which the UNFCCC seeks to foster limiting/curtailing damage to the ozone layer, by a combination of (1) limiting the amount of chlorofluorocarbons and other ozone-damaging pollutants, and (2) preserve and maintain "carbon sinks" -- natural features that fix ozone damaging pollutants in soil or natural substances (coral reefs, forests, etc.)	Global	
Rio Declaration on the Environment and Development	Rio Declaration	General international non-binding statement enunciating the principles of sustainable development with regard to conservation and environmental issues.	Global	Soft law
UN Agreement for the… Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks	FSA	[See Legal Background Paper]	Global	
UNGA Assembly Resolution n° A/57/L.48		[See Legal Background Paper]	Global	
United Nations Convention on the Law of the Sea	UNCLOS	[See Legal Background Paper]	Global	
United Nations Framework Convention on Climate Change	UNFCCC	Creates a system for limiting/curtailing damage to the ozone layer, through national commitments to limit emission of ozone-damaging chemicals and remedy those already in the atmosphere, creating a system of accounting on a national basis for reductions of emissions of ozone damaging pollutants and other activities that reduce the amount of such pollutants in the atmosphere.	Global	

World Charter for Nature	World Charter	A declaration regarding the need for appropriate measures to protect and conserve nature, and to promote international co-operation in this field. States General Principles, identifies environmental functions and promotes a balanced programme for their sustainable use, identifies "implementation principles" for application of the general principles and functions. Adopted and proclaimed by the United Nations General Assembly on 28 October, 1982.	Global	Soft law
World Heritage Convention	WHC	[See Legal Background Paper]	Global	
Operational Guidelines for the Implementation of the World Heritage Convention (provisional revision WHC.02/2 July 2002; and last finally approved version, Mar. 1999)	WH Guidelines	Set out criteria and procedures for determining that properties have outstanding universal value (primary criteria for listing), determining size, ensuring legal protection status, adding them to the World Heritage list, and maintaining them according to the standards of the WHC	Global	Operationalizing the convention
Convention on Biological Diversity: Jakarta Ministerial Statement on the Implementation of the Convention on Biological Diversity (attaching CBD/COP Decision II/10)	Jakarta Mandate	Declaration of the High-level (Ministerial) segment of CBD COP-2, as supported by subsequent COP Decision II/10, forming the basis of an international programme for addressing biodiversity concerns as regards oceans and coastal areas.	Mandate is global, but all provisions are recommendatory, or are clarifications of CBD objectives.	
Convention on Biological Diversity: Programme of Work on Marine and Coastal Biological Diversity (CBD COP Decision IV/5, as further elaborated in Decisions V/3 and VI/3, and in the Report of the Ad-hoc Technical Expert Group on Marine and Coastal Biodiversity	CBD Marine Programme	A broad-based programme of work, focusing on 5 key programme elements (i) integration of marine and coastal areas management, (ii) marine and coastal living resources, (iii) marine and coastal protected areas (iv) mariculture and (v) alien species and genotypes. Particular activities focus on MPAs, and a sub-group has created a specific report on MPA issues.	Mandate is global, but all provisions are recommendatory, or are clarifications of CBD objectives.	
IUCN WCC Resolution 2.20, Conservation of Marine Biodiversity	IUCN Marine Res.	Supports the conservation of marine biodiversity in several respects, including most relevantly a the Union's support to the goal of "a representative network of Marine Protected areas at regional and global scales" and the related mandate to the Union to investigate the possible value of HSMPAs and other natural resource management tools in the high-seas	Mandate is global, but all provisions are recommendatory.	

Regional Instruments				
Antarctica				
Antarctic Treaty	Antarctic Treaty	[see legal background paper]	Antarctic	
Annex V to the Protocol on Environmental Protection to the Antarctic Treaty. Area Protection and Management	Madrid Protocol Annex V	(Antarctic Treaty) Annex V to the Madrid Protocol establishes a revised system of protected areas that distinguishes between protected areas (Antarctic Specially Protected Areas "ASPAs") and managed areas (Antarctic Specially Managed Areas "ASMAs")	Antarctic	
Convention for the Conservation of Antarctic Seals	CCAS	Specific focus on seal conservation and sustainable use issues	Antarctic	
Convention on the Conservation of Antarctic Marine Living Resources (1980)	CCAMLR	Conservation of Antarctic marine living resources operating through a Commission with advice from a Scientific Committee	Antarctic	
Convention on the Regulation of Antarctic Mineral Resource Activities	CRAMRA	Regulates activities involving Antarctic mineral resources activities to minimise significant effects on the Antarctic environment	Antarctic	Not in force
Protocol on Environmental Protection to the Antarctic Treaty	Madrid Protocol	Comprehensive protection of the environment and dependent and associated ecosystems, designates Antarctica as a natural reserve, devoted to peace and science (Article 2).	Antarctic	
Agreed Measures for the Conservation of Antarctic Fauna and Flora (1964)	1964 Agreed Measures	Specific measures for Antarctic conservation.	Antarctica	

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal	Basel	An agreement regarding the transportation of wastes between countries, and their disposal in a country other than the country in which they were generated. Ocean disposal generally is not addressed, as it is deal with in other international agreements, however, this Agreement does contain provisions related to Antarctica.	Global, but with special relevance to Antarctica	Convention is global, but relevant provision relates to Antarctica
Arctic				
Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas	ASCOBANS	The basic purpose of ASCOBANS is to promote close cooperation "in order to achieve and maintain a favourable conservation status for small cetaceans" in the Baltic and North Seas [Article 2(1)]. The principal measures by which this objective is to be achieved are outlined in the Conservation and management plan, which appears an Annex to the Agreement, and which requires parties, inter alia, to endeavour to establish the prohibition under international law of the intentional taking and killing of small cetaceans and the obligation to release immediately any animals caught alive and in good health; to reduce pollution harmful to small cetaceans; to modify fishing gear and practices in order to reduce bycatch and prevent gear from being abandoned or discarded at sea; to regulate activities which seriously affect the food sources of small cetaceans; to prevent significant disturbance (e.g. seismic testing, whale-watching) to small cetaceans; to carry out population surveys and research into the causes of their decline.	Baltic (Arctic, Northeast Atlantic)	
Agreement Concerning Measures for the Protection of the Stocks of Deep-Sea Prawns (*Pandalus borealis*), European Lobsters (*Homarus Vulgaris*, Norway Lobsters (*Nephrops norvegicus*) and Crabs (*Cancer pagurus*) (1952)	Shellfish Agreement	To protect the stocks of the four species of crustaceans in the seas lying between Denmark, Sweden and Norway by regulating size of mesh of nets and minimum size of crustaceans to be caught are regulated.	Northeast Atlantic, Arctic	
Convention on the Conservation and Management of Pollock Resources Central Bering Sea (1994)	Pollock	The Convention establishes an international regime (Annual Conference of the Parties, Scientific Committee) for conservation, management and optimum utilisation of Pollock resources	Pacific/Arctic	

Arabian Seas				
Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution	Kuwait Convention	To prevent, abate and combat pollution of the marine environment.	Arabian	
Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment (1982)	Gulf Conservation	A regional seas convention, whose goal is 'to ensure rational human use of living and non-living marine and coastal resources in a manner ensuring optimum benefit for the present generation, at the same time maintaining the potential of that environment to satisfy the needs and aspirations of future generations.' A draft Protocol Concerning the Conservation of Biological Diversity and the Establishment of Protected Areas and a draft Protocol on the Protection of the Marine Environment from Land-based Sources of Pollution in the Red Sea and Gulf of Aden have been sent to member states for review.	Arabian	
Indo-pacific Fisheries Commission Agreement (1996)	Indo-pacific Fisheries	The Agreement establishes an Asia-Pacific Fishery Commission to promote proper utilisation of the living aquatic resources of the region.	East Asian Seas, Central Indian Ocean, East Africa, Arabian Sea	
Australia/New Zealand				
Memorandum of Understanding on Port State Control in the Asia-Pacific Region. Maritime Authorities of Australia, New Zealand, Russian Federation, Thailand, Canada, Hong Kong, China, Republic of Korea (1993)	Port State Control	The Parties establish a Committee with the main task to coordinate inspection activity of foreign merchant ships in the region.	East Asian Seas, Australia/New Zealand, Northwest Pacific	Soft law
Convention for the Conservation of Southern Bluefin Tuna (1993)	Bluefin Tuna	RFMO created "to ensure the conservation and optimum utilisation of southern bluefin tuna, by establishing Commission responsible for gathering all relevant information and coordinating legal and policy measures of the Parties in order to preserve the bluefin tuna population in the area."	Australia/New Zealand	

Baltic				
Convention on Fishing and Conservation of the Living Resources in the Baltic Sea and Belts (1973)	IBSFC	RFMO created "to preserve and increase the living resources of the Baltic Sea and the Belts and to obtain the optimum yield, in particular, to expand and coordinate studies towards these ends and to put into effect organizational and technical projects on conservation and growth of the living resources on a just and equitable basis as well as take other steps towards rational and exploitation of the living resources."	Baltic	
Convention on the Protection of the Marine Environment of the Baltic Sea Area (1974)	Helsinki Convention (or HelCom)	Generally focused on pollution issues, this Instrument has become a 'partner convention' under the regional seas programme. Contracting parties are under a general duty to take all appropriate measures, either individually or jointly, to conserve natural habitats and biological diversity and to protect ecological processes and such measures shall also be taken in order to ensure the sustainable use of natural resources within the Baltic Sea Area. Since 1992, has focused on the creation and active implementation of a Baltic Sea Joint Comprehensive Environmental Action Programme (JCP) which gives primary attention to cleaning up pollution 'hot spots' within the Baltic region, and beginning to develop shipping routes and other geographic-based controls. Recent decisions have emphasised the need to utilise an 'ecosystem approach' including recognising important or sensitive environmental areas and habitats.	Baltic	
Convention on the Protection of the Marine Environment of the Baltic Sea Area (1992)		Updating and generally included in HELCOM	Baltic	
Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas	ASCOBANS	The basic purpose of ASCOBANS is to promote close cooperation "in order to achieve and maintain a favourable conservation status for small cetaceans" in the Baltic and North Seas [Article 2(1)]. The principal measures by which this objective is to be achieved are outlined in the Conservation and management plan, which appears an Annex to the Agreement, and which requires parties, inter alia, to endeavour to establish the prohibition under international law of the intentional taking and killing of small cetaceans and the obligation to release immediately any animals caught alive and in good health; to reduce pollution harmful to small cetaceans; to modify fishing gear and practices in order to reduce bycatch and prevent gear from being abandoned or discarded at sea; to regulate activities which seriously affect the food sources of small cetaceans; to prevent significant disturbance (e.g. seismic testing, whale-watching) to small cetaceans; to carry out population surveys and research into the causes of their decline.	Baltic (Arctic, Northeast Atlantic)	

Caspian Sea				
Framework Convention for the Protection of the Marine Environment of the Caspian Sea (2003)	Caspian Convention	Although apparently not adopted under the RSA, this is in content very similar to a regional seas agreement, focusing on both pollution and marine conservation. The Caspian as a fully enclosed sea (or perhaps 'lake') includes some aspects not found in other regional seas. Although not discussing protected areas per-se, the agreement calls on parties to take "all appropriate measures to protect, preserve and restore the environment of the Caspian Sea"	Caspian	Not yet in force
East Asian Seas				
Indo-pacific Fisheries Commission Agreement (1996)	Indo-pacific Fisheries	The Agreement establishes an Asia-Pacific Fishery Commission to promote proper utilisation of the living aquatic resources of the region.	East Asian Seas, Central Indian Ocean, East Africa, Arabian Sea	
Memorandum of Understanding on Port State Control in the Asia-Pacific Region. Maritime Authorities of Australia, New Zealand, Russian Federation, Thailand, Canada, Hong Kong, China, Republic of Korea (1993)	Port State Control	The Parties establish a Committee with the main task to coordinate inspection activity of foreign merchant ships in the region.	East Asian Seas, Australia/New Zealand, Northwest Pacific	Soft law
Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats in the Indian Ocean and South East Asia	IOSTA	This MoU closely the concepts of other CMS agreements, focusing on “achieving favourable conservation status,” and on development of a mutually agreed Conservation and Management Plan. Because of its ocean-oriented focus, it attempts to extend its coverage to the “high seas,” by asking its parties to apply its principles to “vessels operating under [the party’s] flag,” and suggesting that the Conservation and Management Plan should address “fisheries by-catch” issues.	South Asia, North Africa, West Africa, Southern Africa, and the island states of the Indian Ocean.	Soft law
East Africa				
Indo-pacific Fisheries Commission Agreement (1996)	Indo-pacific Fisheries	The Agreement establishes an Asia-Pacific Fishery Commission to promote proper utilisation of the living aquatic resources of the region.	East Asian seas, Central Indian Ocean, East Africa, Arabian Sea	

Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats in the Indian Ocean and South East Asia	IOSTA	This MoU closely the concepts of other CMS agreements, focusing on "achieving favourable conservation status," and on development of a mutually agreed Conservation and Management Plan. Because of its ocean-oriented focus, it attempts to extend its coverage to the "high seas," by asking its parties to apply its principles to "vessels operating under [the party's] flag," and suggesting that the Conservation and Management Plan should address "fisheries by-catch" issues.	South Asia, North Africa, West Africa, Southern Africa, and the island states of the Indian Ocean.	Soft law
Western Indian Ocean Tuna Organisation Convention	Western IO Tuna	The Organization's objectives are: (a) harmonization of policies with respect to fisheries; (b) relations with distant water fishing nations; (c) fisheries surveillance and enforcement; (d) fisheries development; and (e) reciprocal access to EEZs of other members. The Organization does not have regulatory powers.	Western Indian Ocean	
Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (1985)	Nairobi Convention	A regional seas convention focused on conservation and natural/living resource management. "Specially protected areas" are formally mandated in Article 10. Protocols include a Protocol on Protected Areas and Wild Fauna and Flora in the Eastern African Region, adopted in 1985, entered into force 1996	Eastern Africa (and western Indian Ocean)	
Eastern Pacific				
Convention for the Establishment of an Inter-American Tropical Tuna Commission (1949, rev. 2003)	Inter-Amer. Tuna	RFMO whose main objectives are to maintain the populations of yellowfin and skipjack tuna and other kind of fish taken by tuna vessels in the Eastern Pacific Ocean and to cooperate in the gathering and interpretation of factual information to facilitate maintaining the populations of these fish at a level which permits maximum sustainable catches year after year. [Preamble, Article II]	East Pacific	
Indian Ocean				
Agreement for the Establishment of the Indian Ocean Tuna Commission (1993)	IOTC	The Convention established the Indian Ocean Tuna Commission to promote cooperation in the conservation of tuna and tuna like species and to promote their optimum utilization, and the sustainable development of the fisheries. [Articles I and V]	Indian Ocean	
Indo-pacific Fisheries Commission Agreement (1996)	Indo-pacific Fisheries	The Agreement establishes an Asia-Pacific Fishery Commission to promote proper utilisation of the living aquatic resources of the region.	East Asian Seas, Central Indian Ocean, East Africa, Arabian Sea	

Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats in the Indian Ocean and South East Asia	IOSTA	This MoU closely the concepts of other CMS agreements, focusing on "achieving favourable conservation status," and on development of a mutually agreed Conservation and Management Plan. Because of its ocean-oriented focus, it attempts to extend its coverage to the "high seas," by asking its parties to apply its principles to "vessels operating under [the party's] flag," and suggesting that the Conservation and Management Plan should address "fisheries by-catch" issues.	South Asia, North Africa, West Africa, Southern Africa, and the island states of the Indian Ocean.	Soft law
Mediterranean and Black Seas				
Convention for the protection of the Mediterranean Sea against Pollution (1976)	Barcelona Convention	Provides for international cooperation for a coordinated and comprehensive approach to the protection and enhancement of the marine environment in the Mediterranean area through, amongst others, pollution management, monitoring and liability provisions.	Mediterranean and Black Seas	
Protocol concerning Mediterranean Specially Protected Areas (1982)	SPA Protocol	The Protocol calls for the establishment and management of a list of Specially Protected Areas to protect and improve the state of the natural resources and natural sites of the Mediterranean Sea.	Mediterranean and Black Seas	
Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean	SPAMI Protocol	The Protocol calls for the establishment of a list of Specially Protected Areas of Mediterranean Importance (SPAMI) in order to conserve biodiversity and to contain specific Mediterranean ecosystems. Related measures include, protection and conservation of species, regulation of the introduction of non-indigenous or genetically modified species, and the improvement of the scientific, technical, and management research relevant to Specially Protected Areas.	Mediterranean and Black Seas	
Protocol for the prevention of pollution of the Mediterranean Sea by dumping from ships and aircraft.	PPPMD	Creates a system of permits for the dumping of wastes (with a specific list) into the Mediterranean and sets out procedure for dealing with emergencies.	Mediterranean and Black Seas	
Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area	ACCOBAMS	Agreement among range-states, entered into pursuant to CMS, creating and committing to an action plan for the conservation of whales, dolphins and other cetaceans in and near the Mediterranean Sea. This agreement was one tool used in the creation of the Ligurian Sea Sanctuary (see legal background paper.)	Mediterranean and Black Seas	

Convention Concerning Fishing in the Black Sea	Black Sea Fishing	To promote the rational utilization of the fishery resources of the Black Sea and the development of marine fishing and to promote mutual assistance in improving fishing technique and in carrying out research in the field of ichthyology and hydrobiology for the purpose of maintaining and augmenting the stocks of fish in the Black Sea with a view to increasing the yield. [Preamble, Article 1]	Black Sea	
Agreement for the Establishment of a General Fisheries Commission for the Mediterranean (1997)	AEGFCM	Establishes a General Fisheries Commission and updates the previous agreement to reflect provisions in the U.N. Convention on the Law of the Sea relating to the conservation and management of the living marine resources. Purpose being to promote the development, conservation, rational management and best utilization of living marine resources, as well as the sustainable development of aquaculture in the Region.	Mediterranean and Black Seas	Not in force
Convention on the Protection of the Black Sea against Pollution	Black Sea	A Regional Seas convention, focused on pollution issues, but specifically including the planning of the area to protect important biological features. A protocol on Black Sea Biodiversity and Landscape Conservation was signed in 2003.	Black Sea	
Commission under the Agreement for the Establishment of the General Fishery Commission for the Mediterranean (1949, rev. 1997)	GFCM	RFMO for the Mediterranean region	Mediterranean and Black Seas	
North Africa				
Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution	Kuwait Convention	Regional Seas convention, with four protocols focused on direct threats and discharges. A draft Protocol Concerning the Conservation of Biological Diversity and the Establishment of Protected Areas was prepared in 2002, but has not been adopted.	North Africa	

Northeast Atlantic				
Agreement between the Government of Iceland, the Government of Norway and the Government of the Russia Federation Concerning certain aspects of Cooperation in the Area of Fisheries	St Petersburg Agreement	The basic purpose of the Agreement is a mutual exchange of quotas between the three Parties, combined with ceilings placed on the total catch that may be taken of particular species and a number of other undertakings, such as a duty to attempt to prevent the reflagging of vessels in order to avoid the measures contained in the Agreement. An important feature of the Agreement, however, is that Iceland will cease fishing in the high seas area of the Barents Sea (known as the "Loop Hole"), although the Agreement does not expressly state this.	Northeast Atlantic	
Convention for the Protection of the Marine Environment of the North-East Atlantic	OSPAR	OSPAR unites Northeast Atlantic states in an effort prevent and eliminate pollution in the area and to conserve marine ecosystems, specifically including areas in the high seas. Categories of sources of pollution covered include: land-based sources, dumping or incineration, offshore sources. Includes a detailed monitoring program involving cooperation between the parties and generally applying the precautionary principle. Aims for the application of an integrated ecosystem approach in the protection of ecosystems in the maritime area and provides for protective measures relating to specific areas.	Northeast Atlantic	
Convention on Future Multilateral Cooperation in Northeast Atlantic Fisheries (1980)	NEAFC	The Convention established the North-East Atlantic Fisheries Commission, which is charged with performing its functions "in the interests of the conservation and optimum utilization of the fishery resources of the Convention area." [Articles 3 and 4]	Northeast Atlantic	
Agreed Record of Conclusions of Fisheries Consultations on the Management of the Norwegian Spring Spawning Herring (Atlanto-Scandian Herring) Stock in the Northeast Atlantic for 1997.	NOR. HERRING	To promote conservation, rational utilization and management of Norwegian spring spawning herring and to provide for long-term sustainable exploitation of the stock. To this end, the parties agreed to establish, taking into account the best scientific advice available, such measures as will ensure that the spawning stock will be maintained above safe biological limits, where sufficient recruitment is ensured to allow for long-term sustainable exploitation.	Northeast Atlantic (Norwegian Sea)	

Agreement Concerning Measures for the Protection of the Stocks of Deep-Sea Prawns (*Pandalus borealis*), European Lobsters (*Homarus Vulgaris*), Norway Lobsters (*Nephrops norvegicus*) and Crabs (*Cancer pagurus*) (1952)	Shellfish Agreement	To protect the stocks of the four species of crustaceans in the seas lying between Denmark, Sweden and Norway by regulating size of mesh of nets and minimum size of crustaceans to be caught are regulated.	Northeast Atlantic, Arctic	
Convention for the Conservation of Salmon in the North Atlantic Ocean (1982)	NASCO	RFMO Creation whose main purposes are: (a) to promote the acquisition, analysis, and dissemination of scientific information pertaining to salmon stocks in the North Atlantic Ocean; and (b) to promote the conservation, restoration, enhancement, and rational management of salmon stocks in the North Atlantic Ocean through international cooperation.	Northeast Atlantic, Northwest Atlantic	
International Convention for the Conservation of Atlantic Tunas (1996)	ICCAT	RFMO whose objective is "to co-operate in maintaining the population of tunas and tuna-like species found in the Atlantic Ocean and the adjacent seas at levels that will permit the maximum sustainable catch for food and other purposes."	Northeast Atlantic, Northwest Atlantic, South Atlantic	
North-East Pacific				
Convention for Cooperation in the Protection and Sustainable Development of the Marine and Coastal Environment of the North-East Pacific (2002)	The Antigua Convention	A Regional Seas convention, broadly focused on a range of ocean environmental problems (pollution, sustainable development, and conservation.) Although not yet in force the parties have adopted an Action Plan under this document	Central American coastline of the North-east Pacific	Not yet in force
Treaty Between the Government of Canada and the Government of the United States of America concerning Pacific Salmon (1999)	Pacific Salmon	Promotes enhancement, conservation and rational management of Pacific salmon stocks between Canada and the US.	North-east Pacific	
Convention on the Conservation and Management of Pollock Resources Central Bering Sea.(1994)	Pollock	The Convention establishes an international regime (Annual Conference of the Parties, Scientific Committee) for conservation, management and optimum utilisation of Pollock resources	Bering Sea	

Agreement for the International Dolphin Conservation Programme (1998)	IDCPA	Controls on fisheries utilising equipment that harms dolphin populations (in support of governmental and other tuna labelling schemes.	Eastern Pacific	In force since 1999, but with limited membership (United States, Ecuador, Mexico and Panama)
North Pacific Anadromous Fish Commission under the Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean (1992)	NPAFC	RFM Agreement whose purposes is that all abutting states agree to fish for anadromous stocks only within EEZ areas. Somewhat unusual, in that the geographic area covered by the instrument is entirely/solely areas outside of national jurisdiction (*i.e.,* beyond 200 miles from national baselines in the region.)	North West Pacific; North-east Pacific (and any other North Pacific area)	
North-west Atlantic				
Convention for the Conservation of Salmon in the North Atlantic Ocean	North Atlantic Salmon	The main purposes of the Convention are: (a) to promote the acquisition, analysis, and dissemination of scientific information pertaining to salmon stocks in the North Atlantic Ocean; and (b) to promote the conservation, restoration, enhancement, and rational management of salmon stocks in the North Atlantic Ocean through international cooperation.	Northeast Atlantic, Northwest Atlantic	
International Convention for the Conservation of Atlantic Tunas (1996)	ICCAT	RFMO whose objective is "to co-operate in maintaining the population of tunas and tuna-like species found in the Atlantic Ocean and the adjacent seas at levels that will permit the maximum sustainable catch for food and other purposes."	Northeast Atlantic, Northwest Atlantic, South Atlantic	
Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries (Ottawa, 1978)	NAFO	The establishment and maintenance of an international organization whose object is to contribute through consultation and cooperation to the optimum utilization, rational management and conservation of the fishery resources of the Convention Area. [Article 2(1)]	Northwest Atlantic	
Convention for the Protection of the Marine Environment of the North-East Atlantic (1992)	OSPAR Convention	Integrating and updating the Oslo Convention (1972) and Paris Convention (1974) this instrument focuses on pollution, but increasingly addresses conservation issues. Its Annex on the Protection and Conservation of Ecosystems and Biological Diversity of the Maritime Area (1998) specifically entitles the OSPAR Commission to protect the marine environment of the North East Atlantic from all kinds of human activities, including through the designation of protected areas.	Northeast Atlantic	

North-west Pacific				
Agreement between the Government of Japan and the Government of Australia for the Protection of Migratory Birds and Birds in Danger of Extinction and their Environment	Birds, Japan Australia.	The Parties agree to protect the migratory birds and birds in danger of extinction and their environment, mainly by limiting their hunting and prohibiting their sale, purchase or exchange.	North-west Pacific /South Pacific	National juris. of signatories
Memorandum of Understanding on Port State Control in the Asia-Pacific Region. Maritime Authorities of Australia, New Zealand, Russian Federation, Thailand, Canada, Hong Kong, China, Republic of Korea (1993)	Port State Control	The Parties establish a Committee with the main task to coordinate inspection activity of foreign merchant ships in the region.	East Asian Seas, Australia/New Zealand, Northwest Pacific	Soft law
Convention on the Conservation and Management of Pollock Resources Central Bering Sea.(1994)	Pollock	The Convention establishes an international regime (Annual Conference of the Parties, Scientific Committee) for conservation, management and optimum utilisation of Pollock resources	Bering Sea	
Agreement between the Government of Japan and the Government of Australia for the Protection of Migratory Birds and Birds in Danger of Extinction and their Environment	Birds, Japan Australia.	The Parties agree to protect the migratory birds and birds in danger of extinction and their environment, mainly by limiting their hunting and prohibiting their sale, purchase or exchange.	North-west Pacific /South Pacific	National juris. of signatories
Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean (1992)	NPAFC	RFM Agreement whose purposes is that all abutting states agree to fish for anadromous stocks only within EEZ areas. Somewhat unusual, in that the geographic area covered by the instrument is entirely/solely areas outside of national jurisdiction (*i.e.,* beyond 200 miles from national baselines in the region.)	North West Pacific; North-east Pacific (and any other North Pacific area)	
South Asia				
Colombo Declaration on the South Asia Co-operative Environment Programme (1981)	SACEP	Regional sea arrangement based on, essentially an MOU to address operational responsibility, but operating otherwise through action plans and similar documents	South Asia	

South Atlantic				
Agreement instituting the Latin American Organization for Fisheries Development	OLDEPESCA	The main objective of the Agreement is to provide adequately for the food needs of Latin America and the Caribbean, using the potential of fishery resources for the benefit of the people in the region. The Organization is actively involved in areas of research in fisheries resources, exploitation of fisheries resources, aquaculture, fisheries technology, etc.	Wider Caribbean, South Atlantic, South Pacific, Southeast Pacific	
International Convention for the Conservation of Atlantic Tunas (1996)	ICCAT	RFMO whose objective is "to co-operate in maintaining the population of tunas and tuna-like species found in the Atlantic Ocean and the adjacent seas at levels that will permit the maximum sustainable catch for food and other purposes."	Northeast Atlantic, Northwest Atlantic, South Atlantic	
South-east Atlantic				
Convention on the Conservation and Management of Fishery Resources in the South East Atlantic Ocean (2001)	SEAFO	RFMO Creation agreement, including general principles agreed by all parties with regard to conservation of biodiversity and the marine environment. (Although in force, its current membership is limited (Namibia, the EU and Norway)	Southeast Atlantic	
South-east Pacific				
Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific (1981)	Lima Convention	A regional seas convention focused broadly on a range of environmental issues. A protocol on Conservation and Management of Protected Marine and Coastal Areas of the South East Pacific (1989) entered into force 1984	South-East Pacific	
Framework Agreement for the Conservation of Living Marine Resources on the High Seas of the South Pacific (Santiago, 2000)	Galapagos Agreement	The objective of the Galapagos Agreement is the conservation of the marine living resources in the high seas of the Southeast Pacific, particularly the straddling and higly migratory fish populations.	South-east Pacific	Not yet in force
Agreement instituting the Latin American Organization for Fisheries Development	OLDEPESCA	The main objective of the Agreement is to provide adequately for the food needs of Latin America and the Caribbean, using the potential of fishery resources for the benefit of the people in the region. The Organization is actively involved in areas of research in fisheries resources, exploitation of fisheries resources, aquaculture, fisheries technology, etc.	Wider Caribbean, South Atlantic, South Pacific, Southeast Pacific	

Agreement for the International Dolphin Conservation Programme (1998)	IDCPA	Controls on fisheries utilising equipment that harms dolphin populations (in support of governmental and other tuna labelling schemes.	Eastern Pacific	In force since 1999, but with limited membership (United States, Ecuador, Mexico and Panama)
South Pacific				
Agreement between the Government of Japan and the Government of Australia for the Protection of Migratory Birds and Birds in Danger of Extinction and their Environment	Birds, Japan Australia.	The Parties agree to protect the migratory birds and birds in danger of extinction and their environment, mainly by limiting their hunting and prohibiting their sale, purchase or exchange.	North-west Pacific /South Pacific	National juris. of signatories
Convention for the Prohibition of Fishing with Long Drift Nets in the South Pacific	Long Drift Nets Treaty	The convention restricts and prohibits the use of drift nets in the South Pacific region in order to conserve marine living resources.	South Pacific	
Convention to ban the Importation Into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region	Waigani Convention		South Pacific	
South Pacific Forum Fisheries Agency Convention (1979)	SPFFA	The convention establishes a Forum Fisheries Agency in order to facilitate the co-operation and provide assistance to in the development of fisheries, policies and negotiations and to collect and disseminate to Parties relevant information concerning legislation and management procedure within and beyond the region.	South Pacific	
Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America (1987)	Pacific-USA Fisheries	Regulates fishing by US vessels in Pacific Island waters.	South Pacific	
Niue Treaty on Co-operation in Fisheries Surveillance and Law Enforcement in the South Pacific Region (1992)	Niue Treaty	This Treaty provides for a co-operation of the Parties in fisheries surveillance and law enforcement, mainly by harmonising the relevant legislation of the Parties, allowing for them to extend their inspecting activities in the territories of other Parties, and exchange of relevant information	South Pacific	

Agreement instituting the Latin American Organization for Fisheries Development	OLDEPESCA	The main objective of the Agreement is to provide adequately for the food needs of Latin America and the Caribbean, using the potential of fishery resources for the benefit of the people in the region. The Organization is actively involved in areas of research in fisheries resources, exploitation of fisheries resources, aquaculture, fisheries technology, etc.	Wider Caribbean, South Atlantic, South Pacific, Southeast Pacific	
Agreement establishing the South Pacific Regional Environment Programme (1993)	SPREP (or "Noumea Convention)	Originally a South Pacific Regional Seas instrument, SPREP has blossomed into a tool for marine management and cooperation for the entire pacific non-rim area. This instrument (its primary binding document) focuses on administration enabling SPREP to extend to broader areas of cooperation. The SPREP Secretariat is the Secretariat for the Apia convention, the Waigani Convention and other instruments. There are presently two Protocols under this Convention, both dealing with pollution and discharge/disposal issues.	South Pacific (and other Pacific Islands)	
Convention on Conservation of Nature in the South Pacific (1976)	Apia Convention	Formally requires the development of protected areas and their maintenance. Does not distinguish or mention marine areas.	South Pacific	
Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean	Western & Central Pacific FSA	Delineation and implementation of the FSA in the Pacific Islands and Western Pacific	South Pacific (and other Pacific Islands); Western Pacific	
Western Pacific				
Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (2000)	WCPFC	Delineation and implementation of the FSA in the Pacific Islands and Western Pacific	South Pacific (and other Pacific Islands); Western Pacific	
West Africa				
Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats in the Indian Ocean and South East Asia	IOSEA MoU	This MoU closely the concepts of other CMS agreements, focusing on “achieving favourable conservation status,” and on development of a mutually agreed Conservation and Management Plan. Because of its ocean-oriented focus, it attempts to extend its coverage to the “high seas,” by asking its parties to apply its principles to “vessels operating under [the party’s] flag,” and suggesting that the Conservation and Management Plan should address “fisheries by-catch” issues.	South Asia, North Africa, West Africa, Southern Africa, and the island states of the Indian Ocean.	Soft law

Understanding Concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa,	Atlantic Africa Turtles MoU	A relatively straightforward framework for mutual cooperation in the conservation of turtles and their habitats. Its parties agreed to make all reasonable efforts to protect turtles at all stages of their life cycle, both legislatively and through conservation management, achieved in mutual cooperation. Integral to the MoU is the Conservation and Management Plan, which is specifically included by reference in the MoU, and will be the subject of regular meetings of the parties.	South-east Atlantic	Not in force
Convention on the Conservation and Management of Fishery Resources in the South-East Atlantic Ocean	The SEAFO Convention	The purpose is to ensure long term conservation and sustainable use of all living marine resources in the South-East Atlantic Ocean, including the high seas, and to safeguarding the environment and marine ecosystems in which the resources occur. Parties shall in particular: (a) adopt appropriate measures to ensure the long-term conservation as well as the sustainable use of fishery resources; (b) take into due account the impact of fishing activities on ecologically related species (such as seabirds, cetaceans, seals and marine turtles); (c) adopt, if necessary, conservation and management measures for species which belong to the same ecosystem as the harvested fishery resources; (d) protect biodiversity in the marine environment.	South-east Atlantic	
International Convention for the Conservation of Atlantic Tunas	ICCAT	To co-operate in maintaining the population of tunas and tuna-like species found in the Atlantic Ocean and the adjacent seas at levels that will permit the maximum sustainable catch for food and other purposes.	Northeast Atlantic, Northwest Atlantic, South Atlantic	
Convention on Fisheries Cooperation among African States Bordering the Atlantic Ocean	Dakar Convention	Promote cooperation in fisheries conservation, management and development in the region, including the monitoring, surveillance and control of fishing vessels; to "take up the challenge" of food self-sufficiency through the rational utilization of fishery resources; to stimulate the national economic sectors through the direct and secondary effects resulting from fishery resources exploitation, bearing in mind the importance of the fisheries sector in the economic, social and nutritional development process of the people of the region; to enhance, coordinate and harmonize efforts and capabilities for the purpose of conserving, exploiting, upgrading and marketing fishery resources; and to reinforce solidarity with African land-locked States and geographically disadvantaged States of the region.	West Africa	

International Convention for the Conservation of Atlantic Tunas	ICCAT	To co-operate in maintaining the population of tunas and tuna-like species found in the Atlantic Ocean and the adjacent seas at levels that will permit the maximum sustainable catch for food and other purposes.	Northeast Atlantic, Northwest Atlantic, South Atlantic	
Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region	Abidjan Convention	A regional seas convention focused on protecting the marine environment, coastal zones and related internal waters falling within the jurisdiction of the States of the West and Central African region. Many activities are undertaken in coordination with the Nairobi Convention.	West Africa, South Atlantic	
Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region	CARTHAGENA	Generally promotes pollution prevention from a variety of pollution sources. Allows for the creation of Protected Areas within the Convention Area.	Wider Caribbean	
Wider Caribbean				
Agreement instituting the Latin American Organization for Fisheries Development	OLDEPESCA	The main objective of the Agreement is to provide adequately for the food needs of Latin America and the Caribbean, using the potential of fishery resources for the benefit of the people in the region. The Organization is actively involved in areas of research in fisheries resources, exploitation of fisheries resources, aquaculture, fisheries technology, etc.	Wider Caribbean, South Atlantic, South Pacific, Southeast Pacific	
Protocol Concerning Specially Protected Areas and Wildlife	SPAW Protocol	The objectives of the SPAW Protocol are to protect and preserve and manage in a sustainable way: areas and ecosystems that require protection to safeguard their special value; threatened or endangered species of flora and fauna and their habitats; and species with the objective of preventing them from becoming endangered or threatened.	Wider Caribbean	

APPENDIX 5: STATUS CHART FOR SELECTED TREATIES

This appendix has been omitted due to its unusually large size. If interested in this appendix, Please contact the author of the paper (tomme.young@googlemail.com)