PROSPECTS OF EVOLUTION OF THE LAW OF THE SEA, ENVIRONMENTAL LAW AND THE PRACTICE OF ITLOS

New Challenges and Emerging Regimes

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PROSPECTS OF EVOLUTION OF THE LAW OF THE SEA, ENVIRONMENTAL LAW AND THE PRACTICE OF ITLOS

New Challenges and Emerging Regimes

Essays in Honour Of
JUDGE VICENTE MAROTTA RANGEL

Editors

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International Tribunal for the Law of the Sea

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FOREWORD

It is a singular honor to introduce this work. Professor Vicente Marotta Rangel, deservedly praised by professors Tafsir Malick Ndiaye, Rodrigo Fernandes More, and other authors, was among the most eminent students of the Law of the Sea in Brazil and in the world.

Throughout a fruitful life journey, the illustrious Professor Rangel was a chaired professor of International Public Law at the School of Law of the University of São Paulo, an institution he directed from 1982 to 1986.

He also distinguished himself as a legal advisor to the Ministry of Foreign Relations between 1990 and 1992, and as head of the legal office of the Brazilian Space Agency from 1994 to 1995.

The complex and challenging field of the Law of the Sea, however, was where he marked his greatest contribution as a notable jurist and humanist as a consultant, between 973 and 1982, to the Brazilian delegations to the III

Conference of the Law of the Sea, from which emerged the United Nations Convention on the Law of the Sea, the "Sea Constitution".

Given that Brazil has a strong tradition in the area of the Law of the Sea, Professor Rangel hailed and recalled with pride and respect the difficult and successful work carried out during the III Conference, alongside ambassadors and active negotiators José Sette Câmara, Carlos Calero Rodrigues, and Ramiro Saraiva Guerreiro, the latter being the formulator of Brazilian foreign policy for the sea, and Minister of Foreign Relations between 1979 and 1985, the final period of the above-mentioned Convention.

The inclusion of orientations of Brazilian diplomacy in this important document clearly testifies to the extreme importance of the seas and oceans for Brazil.

Being distinguished by his peers in Brazil and at the United Nations, Professor Rangel was deservedly elected in 1996 to be among the original members of the International Tribunal for the Law of the Sea. On that occasion, he stood out as the judge who received the most votes among the 21 elected.

He remained a member of the Tribunal for 19 years, leaving it in 2015 at the age of 91, having honored and enriched the Brazilian judicial tradition in international courts, and having contributed a legacy for the Law of the Sea and for future generations throughout the world, especially for those in Brazil.

Professor Rangel left us in 2015. From him we inherit an extensive and invaluable list of books and academic articles; but, especially, the inspiration behind the articles in this work that honors him.

Sailors thank beloved Professor Rangel for his teachings and for his innumerable examples of correctness and perseverance. We stand in line and at attention, wishing him eternal fair winds and following seas!

Brasília, 30 September, 2018.

Ilques Barbosa Junior
Fleet Admiral
Brazilian Navy Chief of Staff

MEMORIES

Eu tinha 13 anos quando meu pai, Vicente Marotta Rangel, foi eleito para o Tribunal Internacional do Direito do Mar. Foram quase vinte anos acompanhando suas partidas e chegadas, todas sempre um grande evento que minha memória faz questão de vivificar como se tivessem acabado de acontecer!

Começava assim: duas semanas antes do embarque, ele tratava de escolher a maior mala da casa. Revistava uma, descartava. Investigava outra, torcia o nariz. Quando encontrava a mais adequada – cujo espaço pudesse comportar com folga pouco mais da metade em livros –, soltava um suspiro compassado. A respiração ia pouco a pouco mudando, e a tensão fazia sala até o alívio chegar.

Reservava em torno de cinco a sete dias para ordenar os textos que levaria na viagem, entre papéis e livros. Tinha o hábito de anotar seus pensamentos onde mais lhe aprouvesse (contracapa de revistas e versos de embalagens eram mais úteis que muita brochura) e deixava-os lá, "decantando" por algumas

horas, para depois passar tudo a limpo em folhas de sulfite. Perdi a conta de quantas margens de folhas de jornal e envelopes vazios de correspondência ele preencheu com as siglas ITLOS/TIDM. No fim das contas – minha mãe se divertia quando ele próprio chegava a esta constatação –, era uma grande disputa entre papéis e vestuário. Se necessário fosse, sacrificaria pulôveres e casacos em nome de obras sobre o Atlântico. Por que não?

Esses episódios todos me remetem ao modo como meu pai e eu construíamos nosso afeto: usávamos as palavras.

Vicente Marotta Rangel se vestia com elas. Semeava significados por onde ia. Em ambientes formais, discursava sempre muito pausadamente. Entrelaçava os dedos, olhava para cima, ouvia o interlocutor respeitosamente, puxando o queixo levemente para frente com o indicador e o polegar, e dava grandes pausas entre um raciocínio e outro. Pensava cirurgicamente antes de intervir, de opinar, de ponderar. Era como o agricultor que vai ao campo colher frutas e por lá fica porque se esquece de voltar, porque se encantou ao sentir o aroma da natureza desabrochando, ganhando vida.

Com Vicente Marotta Rangel, vi nascendo a língua portuguesa. Depois, a francesa. As primeiras palavras de ambas me pareciam filhotes de pássaros frágeis, penacho curto, molhado, olhos arregalados e bico bem aberto. Eram-me estranhas, difíceis, desajeitadas até.

O desconforto, com o tempo, mudou. Os lábios do meu pai me ensinaram a apreciá-las. Cada fonema, cada som, ficava muito mais bonito quando era modulado pela sua voz. Ele me ensinou a pegar a palavra, aquecê-la nas palmas das mãos por alguns minutos como quem fricciona o graveto contra a pedra até ver surgir a primeira faísca, abrir as mãos e libertá-las como quem solta araras coloridas em céu de brigadeiro. Aos poucos, várias voaram. Ultrapassaram copas de mangueiras e de eucaliptos.

Com Vicente Marotta Rangel, entendi que palavras libertam. Quem está por trás delas é que aprisiona.

Com Vicente Marotta Rangel, aprendi a enfeitar os ouvidos de quem a gente ama com palavras vindas do coração. E foi nesse meu jardinzinho, que todo mundo tem do lado esquerdo do peito, onde ele plantou as mais bonitas: "obrigado", "me desculpe, não quis magoar você", "poderia me dar licença, por favor", "eu te amo muito", "é a Cinderella do papai!".

Este livro versa sobre essas sementinhas que Vicente Marotta Rangel plantou nos oceanos e que floresceram em salas de aula e bibliotecas do Brasil, em palestras em Nova Iorque, em conferências em Haia, em corações. Apresenta o seu legado sob a perspectiva dos amigos e admiradores de sua erudição, elegância, competência e sensibilidade.

É um livro com muitas palavras. Todas doces.

Porque são sobre Vicente Marotta Rangel.

Meu eterno e amado pai.

Chantal Scalfi Rangel

Original in Portuguese

Translation at the end of this Book

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PAULO BORBA CASELLA, Full Professor for Public International Law and Head of the International and Comparative Law Institute at the University of São Paulo Law School, has been invited as visiting professor and lecturer in universities, including the Brazilian Society for the Progress of the Sciences (SBPC) (2015), the Ministry of Foreign Affairs, in Brasilia and the Alexandre de Gusmão Foundation in Rio de Janeiro, the Dutch Ministry for Foreign Affairs, at the Hague (2013), the Russian Academy of Sciences – Institute for Latin American Studies, in Moscow (2014), given "the Gilberto Amado Memorial Lecture" to the International Law Commission, in Geneva (2013), lectured at the XXXVI and XLII Courses of International Law of the Organization of American States (in 2009 and 2015), at the Permanent

Court for Revision of the MERCOSUR, in Asunción (2015), at the Institut de Sciences Politiques, in Paris, as well as at the Universities of Amsterdam, Asunción, Berlin-Humboldt (2012 and 2016), Bielefeld, Buenos Aires, Coimbra, Córdoba, Düsseldorf, Florence (2014), Hamburg, Heidelberg, Helsinki, Hiroshima (2016), Leiden (2013), Lisbon, Lodz, Luxemburg (2016), Lyon III (2000, 2015, 2016), Maastricht, Macau (2007 to 2012), Milan-Bocconi, Montreal, New Delhi (2009), Nice, Ottawa, Paris I-Sorbonne (2007, 2010), Paris-Panthéon-Assas (2005-2006), Rennes, Rome I – La Sapienza (2009, 2014), Rome II – Tor Vergata (2013), Saarbrücken, Saint Petersburg (2011 and 2014), Salamanca (2011), Strasbourg (2005, where he also co-directed a doctor degree, completed in 2014), Meiji University in Tokyo (2016), Tübingen etc. Publications include several books written or edited, as well as articles and chapters, published in some twenty countries.

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before the International Court of Justice: *Frontier Dispute (Burkina Faso/Republic of Mali), Territorial Dispute (Libyan Arab Jamahiriya/Chad), Kasikili/Sedudu Islands (Botswana/Namibia), Armed activities on the territory of the Congo (Democratic Republic of the Congo v. Burundi), Land and Maritime Boundary between Cameroon and Nigeria (Cameroon v. Nigeria), Sovereignty over Pulau Litigan and Pulau Sipadan (Indonesia/Malaysia)*; Member of an arbitral tribunal of the International Chamber of Commerce; Counsel and advocate, arbitral tribunal, France/UNESCO; President of an arbitral tribunal established within the framework of the European Development Fund; member of an arbitral tribunal in the Bay of Bengal Maritime Boundary Arbitration between Bangladesh and India; member of an arbitral tribunal in the case The Republic of the Philippines v. The People's Republic of China; Judge *ad hoc*, International Court of Justice, *Maritime Delimitation in the Black Sea (Romania v. Ukraine), Aerial Herbicide Spraying (Ecuador v. Colombia), Territorial and Maritime Dispute (Nicaragua v. Colombia), Temple of Preah Vihear, Interpretation (Cambodia v. Thailand)* and *Questions relating to the Seizure and Detention of Certain Documents and Data (Timor-Leste v. Australia)*.

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DEFIS ET PERSPECTIVES DU NOUVEAU DROIT DE LA MER

Tafsir Malick Ndiaye

Je voudrais exprimer toute ma gratitude à notre si cher collègue et ami Vicente MAROTTA RANGEL de m'avoir fait l'honneur de la direction des mélanges à lui offerts. Et c'est avec un plaisir tout particulier que je rends hommage à cet homme que j'ai appris à connaitre après vingt années passées au Tribunal international du droit de la mer: Professeur hors pair, diplomate incomparable et travailleur infatigable à la courtoisie exquise.

Introduction

La troisième Conférence des Nations Unies sur le droit de la mer a été le siège d'une négociation sans précédent, rassemblant tous les Etats du monde, et dont l'objet était de répartir les espaces maritimes entre les diverses catégories de pays[1]. La Convention des Nations Unies sur le droit de la mer

1 Voir, R.J. Dupuy, L'océan partagé, analyse d'une négociation (troisième Conférence des Nations Unies sur le Droit de la mer), Paris, Pédone 1979, p.1

(CNUDM) fut ouverte à la signature le 10 décembre 1982[2] à Montego Bay, en Jamaïque. Elle était accompagnée de l'Acte final de la Troisième Conférence des Nations Unies sur le droit de la mer qui se présente comme une explication officielle – approuvée et signée par les participants – des négociations ayant abouti à l'adoption de la Convention (1973 - 1982) et de quatre résolutions adoptées par la Conférence.

Ceci marque quatorze années de travail ayant vu la participation de plus de cent cinquante Etats représentants toutes les régions du monde, tous les systèmes juridiques et politiques, riches et pauvres, Etats côtiers, Etats archipélagiques, les Iles, les Etats enclavés et ceux décrits comme géographiquement désavantagés au regard de l'espace océanique. Ces pays étaient réunis dans le but d'élaborer et établir un régime juridique complet qui embrasse tous les aspects du droit de la mer en ayant en vue que les problèmes des espaces marins sont étroitement liés entre eux et doivent être envisagés dans leur ensemble[3]. Ce processus a commencé en 1967, lorsque le concept de Patrimoine commun de l'humanité a été discuté à l'Assemblée générale des Nations Unies à propos de la préservation des fonds marins et de leur utilisation pacifique[4].

Comme l'explique René Jean Dupuy, s'il n'est pas toujours aisé de poser des règles générales dans un milieu social où s'affrontent des intérêts contradictoires, les difficultés sont plus nombreuses et plus complexes encore lorsqu'il s'agit de se partager l'Héritage. Le débat porte sur des espaces plus que sur des principes. Lors même que ceux-ci y apparaissent, c'est pour camoufler des intérêts, justifier des appropriations. La liberté des mers, comme un cétacé blessé, est condamnée à errer aux grands larges[5].

Les Etats parties à la Convention ont constaté que les faits nouveaux intervenus depuis les Conférences de Nations Unies sur le droit de la mer qui se sont tenues à Genève en 1958 et en 1960 ont renforcé la nécessité

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2 Voir convention des Nations Unies in the Law of the Sea, Official text of the UNCLOS with Annexes and Index; Final Act of the Third United Nations Conference on the Law of the Sea; Introductory Material on the Convention and the Conference, United Nations, New York 1983, Sales N° E.83 V.5.

3 Ibid. préambule à la CNUDM.

4 Ibid. Voir, B. Zuleta "Introduction", pp. XX-XXIV.

5 R.J. Dupuy, l'Océan partagé, op. cit. (note 1), p.1

d'une Convention nouvelle sur le droit de la mer généralement acceptable[6]. C'est qu'avec l'accession ou plutôt le retour à l'indépendance des Etats, le vent de la révolte a aussi soufflé sur les mers.

La Convention qui traite de tous les aspects du droit de la mer se présente comme une "Constitution des océans"[7]. Elle est en vigueur depuis vingt-deux ans[8] et compte 167 Etats-Parties à ce jour, et les rares Etats comme les Etats-Unis d'Amérique, qui n'ont pas encore adhéré à la Convention, la considère néanmoins comme le siège du droit applicable.

Comme l'indique l'Ambassadeur Tommy Koh, Président de la troisième Conférence des Nations Unies sur le droit de la mer,:

> "my dream that the Convention will become the 'Constitution' of the world's oceans has come to pass. It is the constitution of the oceans because it treats the oceans in a holistic manner. It seeks to govern all aspects of the resources and uses of the oceans. In its 320 articles, and 9 annexes, as supplemented by the 1994 General Assembly Resolution 48/362 relating to Part XI of the Convention and the 1995 Agreement relating to the conservation and management of straddling fish stocks and highly migratory fish stocks, the Convention is both comprehensive and authoritative"[9].

En effet, la CNUDM est au cœur du dispositif normatif relatif à la mer avec ses caractères originaux. L'on note une institutionnalisation très prononcée suivant laquelle la coopération entre Etats-Parties est une obligation. Les institutions apparaissent très diverses et leur rôle très affirmé. Il suffit de penser – par exemple – aux ORGP/RFMO. La Convention a aussi mis le

6 Voir préambule CNUDM.

7 Suivant la formule de l'Ambassadeur Tommy Koh, (Singapour), Président de la Troisième Conférence des Nations Unies sur le droit de la mer qui indique dans son discours à la session de clôture de la Conférence de Montego Bay le 11 Décembre 1982 que: "the question is whether we achieved our fundamental objective of producing a comprehensive constitution for the oceans which stand the test of time. My answer is in the affirmative", in the Law of the Sea, op. cit., (note 2), "A constitution for the Oceans", Remarks by T. Koh, pp. XXXIII-XXXVII.

8 La CNUDM est entrée en vigueur le 16 novembre 1994.

9 Tommy Koh " UNCLOS at 30: Some Reflections", chapter 8, of L. del Castillo (ed.), Law of the Sea, From Grotius to the International Tribunal for the Law of the Sea, Liber Amicorum Judge Hugo Caminos, Brill/Nijhoff, 2015, p. 107.

droit de la mer sous la juridiction des organes juridictionnels internationaux en instituant un système, sans précédent, de règlement des différends. Il suffit de penser à la délimitation des espaces maritimes entre Etats[10].

Le droit conventionnel, qui s'est développé progressivement à travers les conférences de codification et les accords bilatéraux de délimitation, apparaît a priori comme une source importante du droit de la délimitation. Les travaux de la Commission du droit international des Nations Unies ont donné naissance aux dispositions des Conventions de Genève de 1958 relatives à la délimitation de la mer territoriale et du plateau continental. La troisième conférence des Nations Unies sur le droit de la mer a donné naissance à la CNDM.

Celle-ci contient des dispositions relatives à la délimitation de la mer territoriale, du plateau continental et de la zone économique exclusive[11]. Toutefois, l'examen du contentieux de délimitation montre que ces dispositions n'occupent guère la place centrale attendue d'elles[12].

Qui plus est, les accords bilatéraux de délimitation ont généré une pratique assez indigente pour pouvoir s'imposer par la voie coutumière. De fait, il apparaît que le rôle fondamental dans la formulation des règles et principes juridiques devant réagir le droit de la délimitation maritime revient aux juridictions internationales[13].

10 Voir, Tafsir Malick Ndiaye "The Judge, Maritime Delimitation and the Grey Areas" Indian Journal of International Law, Springer 2016, DOI 10.1007/s40901-016-0027-2, pp. 1-41, spec. p.2.

11 Ibid.

12 L'on se souvient que dans les affaires du plateau continental de la mer du Nord, la Cour internationale de justice s'était refusée à voir dans l'article 6 de la Convention de Genève de 1958 sur le plateau continental une règle de caractère coutumier. Elle a dû s'employer alors à définir les principes juridiques devant régir la délimitation du plateau continental entre deux Etats ; Voir affaire du plateau continental de la mer du Nord, (République Fédérale d'Allemagne c. Danemark) et (République fédérale d'Allemagne c. Pays-Bas), arrêt du 20 février 1969, Rec. CIJ 1969, p.3 ; La cour aura d'ailleurs une attitude plus tranchée dans l'affaire de la Délimitation maritime dans la région située entre le Groënland et Jan Mayen: "Ainsi pour la délimitation du plateau continental [...] même s'il convenait d'appliquer, non l'article 6 de la Convention de 1958, mais le droit coutumier du plateau continental tel qu'il s'est développé dans la jurisprudence [..]", Affaire de la délimitation maritime dans la région située entre le Groënland et Jan Mayen (Danemark c. Norvège), arrêt du 14 juin 1993, Rec. CIJ 1993, 38, paragraphe 51 ; On a l'impression que le droit conventionnel était ainsi mis à la porte du droit de la délimitation maritime.

13 De fait, la délimitation a engendré plus d'affaires que tout autre sujet de droit

L'océan est à la fois un espace de travail humain de première importance et un réservoir de ressources biologiques et non biologiques. C'est pourquoi la CNUDM fait une place aux acteurs individuels qui ne sont pas formellement des sujets de droit international[14], comme dans les procédures de prompte mainlevée ou les activités dans la zone internationale des fonds marins. Si la Convention est au cœur du dispositif normatif, il ne faut perdre de vue que l'appareil instrumentaire est impressionnant dans le domaine du droit de la mer puisque les textes se comptent par dizaines[15].

C'est dire que les sources du droit de la mer sont prolifiques[16]. D'abord nous avons les traités internationaux au sens de la Convention de Vienne de 1969. Depuis la conclusion des quatre conventions de Genève, le droit de la mer est marqué par les traités multilatéraux au premier rang desquels se trouve la CNUDM laquelle recèle à la fois des aspects de codification et de développement progressif[17]. La Convention est complétée par des séries de

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international, que ce soit à la Cour de la Haye, devant les Tribunaux arbitraux ou les tribunaux de l'Annexe VII de la CNUDM.

14 Le Tribunal international du droit de la mer a connu de neuf affaires de prompte mainlevée conformément à l'article 292 de la CNUDM. il s'agit des affaires: affaire N°2 "Saiga" (N°2) ; Affaire N°5 "Camouco" ; affaire N) 6 " Monteconfurco" ; Affaire N°8 "Grand Prince" ; Affaire N°11 "Volga" ; Affaire N°13 "Juno Trader" ; Affaire N°14 "Hoshinmaru" ; Affaire 15 "Tomimaru" et affaire n°19 "Virginia G" ; Voir le site web du Tribunal www.itlos.org. De même la chambre de règlement des différends relatifs aux fonds marins a connu d'une demande d'avis consultatif, affaire N° 17 "Responsabilités et obligations des Etats qui patronnent des personnes et des entités dans le cadre d'activités menées dans la Zone".

15 Voir A.V. Lowe and S.A.G. Talmon, Basic documents on the Law of the Sea, The Legal Order of the oceans, Hart publishing, Oxford and Portland, 2009, 1012 p., les auteurs expliquent que: "One of the most striking characteristics of the Law of the Sea is the richness of its documentary sources. Its framework treaty, the monumental 1982 UN Convention on the Law of the Sea, is truly a framework (and one with many significant gaps) which holds together and extensive network of treaties, standards and other measures adopted by international and regional organizations, rooted in fertile mulch of state practice and case-law. By no means all of this material is readily available …" Editor's Preface, p. XIII.

16 Sur les aspects historiques, voir L. del Castillo (ed.), op. cit. [Note 9], pp. 9-106; B. Zuleta op. cit. [note 4), p. XX; Donald R. Rotherwell and Tim Stephens, the International Law of the Sea, Hart publishing, Oxford and Prtland, 2010, pp. 1-29. G. Gidel, Le droit international public de la mer, Chateauroux, Mellottée, 1932, Tome 1.

17 Dans son discours de clôture de la Troisième Conférence des Nations Unies sur le droit de la mer, son président, l'Ambassadeur Tommy Koh explique:

traités multilatéraux qui – parfois – comblent ses lacunes et la mettent en œuvre dans des domaines spécifiques, spécialisés ou encore régionaux. Nous avons ainsi ce que l'on nomme "les accords aux fins d'application" dont les seuls intitulés suffisent à rendre compte de leur objet.

Il s'agit d'une part, de l' "Accord relatif à l'application de la partie XI de la Convention des Nations Unies sur le droit de la mer du 10 décembre 1982, adopté le 28 juillet 1994" et de l' "Accord aux fins de l'application des dispositions de la Convention des Nations Unies du 10 décembre 1982 relatif à la conservation et à la gestion des stocks de poissons dont les déplacements s'effectuent tant à l'intérieur qu'au-delà des zones économiques exclusives (stocks chevauchants) et des stocks de poissons grands migrateurs, adopté le 4 août 1995", de l'autre. L'accord de 1994 amende la CNUDM dont il devient partie intégrante et dispose que:

> "les dispositions du présent Accord et de la partie XI doivent être interprétées et appliquées ensemble comme un seul et même instrument. En cas d'incompatibilité entre le présent Accord et la partie XI, les dispositions du présent Accord l'emportent".[18]

En ce qui concerne l'Accord sur les stocks chevauchants, le mandat des plénipotentiaires était de compléter la CNUDM en vue d'assurer la conservation et la gestion desdits stocks dans de meilleures conditions et d'éviter leur surexploitation ; objectif reflété dans l'Accord[19].

"The third theme I heard was that this Convention is not a codification Convention. The argument that, except for Part XI, the Convention codifies customary law or reflects existing international practice is factually incorrect and legal insupportable. The regime of transit passage through straits used for international navigation and the regime of archipelagic sea lanes passage are two examples of the many new concepts in the Convention. Even in the case of article 76 on the continental shelf, the article contains new law in that it has expanded the concept of the continental shelf to include the continental slope and the continental rise. (…)", T. Koh, op.cit. (note 2), p.xxxvv.; il n'en resta pas moins que la CNUDM est une Convention de codification sur les questions classiques du droit de la mer où elle reprend les Conventions de Genève. En effet, la CNUDM " n'efface pas nombre de règles coutumières classiques dont elle précise les modalités d'application, et qui subsistent parallèlement", L. Savadogo, "Les navires battant pavillon d'une organisation internationale" AFDI, 2007, p. 646.

18 Accord relatif à l'application de la partie XI de la CNUDM du 10 décembre 1982, article 2 paragraphe 1.

19 Voir l'article 2 de l'accord sur les stocks chevauchants du 4 août 1995.

Les dispositions de la CNUDM relatives aux stocks se sont révélées lacunaires et n'ont pu leur assurer une utilisation durable. Elles se présentent plutôt comme un cadre général[20]. Elles mettent à la charge des Etats "l'obligation … de prendre, à l'égard de leurs ressortissants, des mesures de conservation des ressources biologiques de la haute mer"[21] et l'obligation de coopérer à la conservation et à la gestion desdites ressources[22]. Ces obligations apparaissent plutôt molles et rappellent des obligations de comportement[23]. C'est pourquoi, lorsque l'on doit s'employer à évaluer le statut de la CNUDM et son impact dans le droit contemporain de la mer, il est bon de tenir compte de ces accords ainsi que de la pratique des Etats dans la mise en œuvre de la Convention[24].

A côté de ces instruments, il y a d'autres conventions multilatérales spécialisées traitant de diverses activités en mer dans le cadre de l'Organisation Maritime Internationale (OMI), de la pêche (FAO) ou de ressources subaquatiques (UNESCO)[25].

A côté de ces conventions, d'autres accords traitent des questions les plus diverses du droit de la mer. L'on peut mentionner: la convention des Nations

20 Voir document de DOALOS des Nations-Unies A.Conf.164/INF5.

21 Article 117 de la CNUDM.

22 Article 118 de la CNUDM.

23 Voir, R. Casado Raigon, "l'application des dispositions relatives à la pêche en haute mer de la conservation des Nations Unies sur le droit de la mer", Espaces et Ressources maritimes (ERM), 1994, N°8, P.214. ; M. Savini, "la réglementation de la pêche en haute mer par l'Assemblée générale des Nations-Unies. A propos de la Résolution 44/225 sur les grands filets maillants dérivants", AFDI 1990, p.777.

24 En particulier les législations nationales donnant effet aux dispositions de la CNUDM de même que les actes édictés par les organisations internationales et régionales.

25 l'on peut relever parmi les conventions importantes adoptées dans le cadre de l'OMI: la Convention ''SOLAS" et ses protocoles d'amendement ; la Convention MARPOL (1973/1978) ; la Convention Inmarsat (1976) et la Convention SAR de 1979. Voir, G. Librando, "The IMO and the Law of the Sea", in D.J. Attard (General Editor), the IMLI Manual on International Maritime Law, Vol. I: The Law of the Sea, Oxford University Press, 2014, pp.577-605. Pour l'UNESCO, notons la Convention sur le patrimoine culturel subaquatique de 2001, voir T. Scovazzi, "Protection of underwater cultural heritage: the UNCLOS and 2001 UNESCO Convention" IMLI Manual op.cit. pp.443-461. ; quant à la FAO, rappelons l'accord sur la conformité de 1993 et celui sur les mesures du ressort de l'Etat du Port de 2009. Voir Basic Documents op.cit. [Note 15] N°54 et 65.

Unies sur les conditions d'immatriculation des navires du 7 février 1986[26]; la convention pour la répression des actes illicites contre la navigation maritime du 10 mars 1988; la convention des Nations Unies sur la saisie conservatoire des navires du 12 mares 1999 ; la convention d'Abidjan en matière de protection de l'Environnement du 23 mars 1981, la convention d'Oslo relative aux opérations d'immersion du 15 février 1992 et celle de Barcelone sur la protection du milieu marin en Méditerranée du 10 juin 1995[27].

À côté de ces conventions multilatérales, nous avons de multiples conventions bilatérales donnant effet aux dispositions de la Convention, en particulier dans le domaine de la délimitation maritime. Il se trouve que de nombreuses frontières maritimes dans le monde ne sont pas délimitées. Le nombre total de frontières maritimes potentielles est de 420[28] et il existe environ 200 accords de délimitation à ce jour. C'est dire que le droit de la délimitation maritime a de beaux jours devant lui[29].

Ensuite, la seconde importante source est la coutume internationale. En "affirmant que les questions qui ne sont pas réglementées par la Convention continueront d'être régies par les règles et principes du droit international général»[30], la convention reconnaît la place importante qu'occupe la coutume internationale. En effet, le droit de la mer a d'abord et avant tout été un droit coutumier, né dans l'usage et sa pratique. Il devait permettre de sécuriser la navigation internationale et a engendré des notions importantes qui meublent aujourd'hui ce système juridique: eaux intérieures ; mer territoriale ; haute mer ; liberté des mers ; exclusivité de juridiction de l'Etat du pavillon ; baie historique, compétence universelle en matière de lutte contre la piraterie. Ce droit coutumier est parvenu en l'état jusqu'au milieu du XX^{e} siècle, période où fut entreprise l'œuvre de codification du droit de la mer qui se révélera aussi

26 Cette convention n'est pas encore en vigueur.

27 Voir Basic Documents précité [Note 15] pour ces différentes conventions.

28 Voir, US Dept. Of State, Bureau of Oceans and International Environment and Scientific Affairs, Limits in the Seas, N°108, 1st revision, Maritime Boundaries of the World, 1990, 2.

29 Voir les cinq volumes de J.L Charney et L.M. Alexander, International Maritime Boundaries, The American Society of International Law, Nijhoff Publishers, 1993, 1998, 2002, 2007 et les trois volumes édités par DOALOS relatifs aux "Accords de délimitation maritime", ainsi que le volume 5 de Maritime Boundaries: World Boundaries, édité par Gerald H. Blake, Rouledge, 2002.

30 Préambule de la CNUDM du 10 décembre 1982.

œuvre de création[31]. Son importance se renouvelle: "especially with respect to those areas of conventional law which are not clearly articulated in the existing treaties or in areas where state practice may have extended the application of some of the treaty provisions"[32]. La CIJ a reconnu ce phénomène dans nombre de ces décisions[33] et en particulier celles relatives à la délimitation maritime[34].

L'importance de la coutume internationale et ses rapports avec la CNUDM sont rappelés dans les instruments juridiques les plus divers[35] et cette relation synchrone des deux sources dans un droit en mutation rapide comme le droit de la mer est de la première importance.

Après, nous avons la jurisprudence, et la doctrine comme d'autres sources importantes du droit de la mer[36]. Comme le fait observer E. Jouannet:

> "Comment ne pas souligner…l'apport de la CIJ dans la consolidation des règles coutumières sur le droit de la mer, de même qu'inversement dans le rejet de certains principes du domaine de la coutume? L'ensemble de ses arrêts consacrés à ces questions en est une parfaite illustration"[37].

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31 Voir, D.R. Rothwell and T. Stephens, The International Law of the Sea, op. cit. [note 16], p.22.

32 Ibid.

33 Voir, par exemple, affaire de la délimitation de la frontière maritime dans la région du Golfe du Maine (Canada/Etats-Unis), Rec. CIJ 1984, p. 246, §§ 79-96 ; Affaire du plateau continental Libye/Malte, Rec. CIJ. 1985, p.13, §§ 26-34.

34 Voir Tafsir Malick Ndiaye, "The Judge, maritime délimitation and the Grey areas" op. cit. [note 9].; Voir aussi, Affaires du plateau continental en mer du Nord, (RFA/Danmark) et (RFA/Pays-Bas), Rec. CIJ 1969, p.3 ; Voir en outre, Différend relatif à la délimitation de la frontière maritime entre le Bangladesh et le Myanmar dans le golfe du Bengale (Bengladesh/Myanmar) devant le Tribunal international du droit de la mer, arrêt du 14 mars 2012, paragraphe 183.

35 Voir, par exemple, la Convention de l'UNESCO sur le patrimoine culturel subaquatique de 2001 (article 3) ; Accord de 1993 de la FAO dit accord sur la conformité (Préambule) ; le code de conduite de la FAO pour une pêche responsable de 1995, (article 3.1), le plan d'Action international cotre la pêche INN de 2001 (article 10) ou en core l'Accord de 2009 de la FAO sur les mesures du ressort de l'Etat du port contre la pêche INN (Préambule).

36 Voir Tafsir Malick Ndiaye, "The Judge, maritime delimitation…" op. cit. [note 9], p. 2.

37 E. Jouannet, " Droit non écrit", Denis Alland (dir.) Droit International public, Paris, PUF, 2000, Coll. Droit fondamental, p. 289.

Il apparait que le rôle fondamental dans la formulation des règles et principes juridiques devant régir le droit de la délimitation maritime revient aux juridictions internationales - qui les énoncent et les précisent -, plus qu'à la pratique des Etats. En ce qui concerne la doctrine, son rôle – bien que parfois discuté – ne s'est jamais démenti dans le domaine du droit de la mer.

> "There have been few other bodies of international law so substantially influenced by the views of publicists as the law of the sea and the ongoing influence of Grotius is evidence of this phenomena"[38].

Enfin, le droit international contemporain et en particulier le droit de la mer est influencé par des instruments juridiques à caractère non obligatoire qui relèvent de l'exhortatoire ou du recommandatoire et qui se révèlent de la plus grande importance.

Les résolutions des assemblées plénières des organisations internationales jouent un rôle de premier plan en ce sens qu'elles annoncent le droit à venir[39]. Il suffit de penser à certaines d'entre elles qui ont l'allure d'actes fondateurs: droit des peuples à disposer d'eux-mêmes (résolution 1514(XV)) ; l'utilisation pacifique des fonds marins et de leur sous-sol (résolution 2574 D (XXIV))[40]. Déclaration des principes régissant les fonds marins et leur sous-sol au-delà des limites de la juridiction nationale (résolution 2749 (XXV) qui annonce le patrimoine commun de l'humanité symbolisé par la partie XI de la CNUDM[41], ou encore à l'Agenda 21 adopté en 1992 avec son chapitre 17 relatif à la protection des océans[42].

A la FAO, deux instruments de caractère non contraignant retiennent l'attention. Il s'agit, d'une part, du code de conduite par une pêche

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38 V. R. Rothwell et al. op. cit. [note31] p. 24.

39 Voir, J.P. Pancracio, Droit de la mer, Précis Dalloz 2010, 1ère édition, où l'auteur explique, p.54 " On observera que dans les domaines où les principes juridiques appelés à constituer l'armature d'un droit futur sont encore peu fixés, peu stables, discutés, ce sont les formes ou instruments les moins contraignants qui seront choisis. Ainsi, les résolutions de l'Assemblée générale des Nations Unies, qui n'ont pas de force juridique obligatoire pour les Etats, interviennent-elles plus volontiers dans les secteurs où la communauté internationale en est à définir les concepts essentiels de la matière traitée ainsi que ses règles de base".

40 Basic Documents N° 16.

41 Basic Documents N° 17.

42 Basic Documents N° 48.

responsable[43] et du plan d'action international destiné à prévenir, combattre et éliminer la pêche INN de l'autre[44]. Relevons pour l'OMI, le code de conduite relatif à la répression de la piraterie[45].

L'on peut retenir de ce qui précède que le dispositif normatif du droit de la mer est très riche et varié dans un environnement en mutation rapide. C'est pourquoi ce système juridique doit faire face à des défis multiples inhérents à l'approche retenue par la CNUDM elle-même, et qui consiste à partager l'océan entre les Etats du monde. Le défi principal ici est le parachèvement du partage (I). Et puisqu' "il n'y a de constant que le changement"[46], de nouveaux problèmes sont apparus qui étaient inconnus au moment de la rédaction de la Convention ou qui ne se sauraient être traités sur la seule base de celle-ci. Cette situation engendre de nouveau défis (II) qui peuvent ouvrir de nouvelles perspectives pour le droit de la mer.

I. Le parachevement du partage

La convention a partagé les océans en rassemblant tous les Etats du monde et en répartissant les espaces maritimes entre les diverses catégories de pays. Cependant, sa mise en œuvre révèle que les aspérités sont tenaces. Ainsi, la tâche fondamentale que les Etats doivent entreprendre sur la base de la Convention est de compléter, d'achever, le processus de délimitation des espaces maritimes de façon à rendre fonctionnelle la méthode de répartition retenue de la Convention – l'approche dite zonale – et de permettre une bonne gouvernance des mers et des océans.

Ce processus a trait à la délimitation des espaces maritimes entre Etats dont les côtes sont adjacentes ou se font face et à la détermination de la limite extérieure du plateau continental au-delà des 200 milles marins. Ceci engendre quatre formes de délimitation: la délimitation unilatérale(A), la délimitation conventionnelle(B), la délimitation juridictionnelle(C) et la détermination de la limite extérieure du plateau continental au-delà des 200 milles marins(D).

43 Basic Documents N° 58.

44 Basic Documents N° 67.

45 Basic Documents N° 90.

46 On prête à Bouddha cette maxime.

1. La delimitation unilaterale

La délimitation unilatérale concerne la séparation du territoire national d'avec un espace international. Elle s'applique aux espaces relevant de la juridiction de l'Etat côtier: eaux intérieures, mer territoriale, plateau continental et zone économique exclusive. La délimitation de tels espaces relève de la compétence exclusive de l'Etat riverain. Cependant, elle a toujours un aspect international[47]. La question des eaux intérieures, laquelle est absente du droit conventionnel, mérite d'être clarifiée. Il en va de même des critères relatifs à la ligne divisoire unique[48]. Dans la délimitation maritime, la côte, les lignes de base, les îles, les hauts-fonds-découvrants et autres facteurs géographiques ou géodésiques jouent un rôle important[49]. Ces différentes

47 Comme l'indique la CIJ "s'il est vrai que l'acte de délimitation est nécessairement un acte unilatéral parce que l'Etat riverain a seul qualité pour y procéder, en revanche, la validité de la délimitation à l'égard des Etats tiers relève du droit international", Affaires des pêcheries anglo-norvégiennes, arrêt du 18 décembre 1951, Rec.1951, p.132. Ceci rappelle le régime applicable à la nationalité. En effet, "il ne dépend ni de la loi ni des décisions [d'un Etat] de déterminer si cet Etat, a le droit d'exercer sa protection dans le cas considéré", CIJ, affaire Nottebohm deuxième phase, Rec. 1955, p.20, "parce que le droit international laisse à chaque Etat le soin de régler l'attribution de sa propre nationalité". Ibid. p.23. En revanche, la validité interne de la nationalité est la première condition de sa validité internationale. En effet, pour autant que le droit international reconnait aux Etats la compétence exclusive dans la détermination de la nationalité, il subordonne à ses propres exigences son efficacité dans l'ordre international. C'est pourquoi la contestation par un Etat d'un acte de nationalité ne l'invalide pas mais le rend inopposable. Comme le remarque Brownlie, "Nationality is a problem, interalia, of attribution, and regarded in this way resembles the law relating to territorial sovereignty. National law prescribes the extent of the territory of a state, but this prescription doesn't preclude a forum which is applying international law from deciding questions of title in its own way, using criteria of international law", I. Brownlie, "the Relations of Nationality in Public International Law, BYBIL, 1963, p. 290-291.

48 Comme le Remarque Y. Tanaka parlant des Conventions de 1958 et de 1982 sur le droit de la mer, "These treaties contain no provision with regard to the delimitation of internal waters, although that problem may arise, for instance, in the case of a bay with several riparians. In addition to this, the single maritime boundary, which would delimit the continental shelf and the EEZ/fishery zone (FZ) by one line, is at issue. Considering that the factors to be taken into account may be different for the seabed and superjacent waters, it seems possible that the delimitation line of a continental and an EEZ/FZ would differ as well". Y Tanaka, the International Law of the Sea, Second Edition, Cambridge University Press, 2015, p.198.

49 V.T.M. Ndiaye, "Le juge et la delimitation maritime: mode d'emploi", Governing Ocean Resources, New Challenges and Emerging Regimes, a tribute to judge Choon-Ho park,

données factuelles permettent, en effet, à l'Etat de déterminer l'assiette spatiale d'exercice de sa juridiction sur les espaces maritimes[50]. C'est-à-dire que:

> "(…) le lien juridique entre la souveraineté territoriale de l'Etat et de ses droits sur certains espaces maritimes adjacents s'établit à travers ses côtes. La notion d'adjacence en fonction de la distance repose entièrement sur celle du littoral et non sur celle de la masse terrestre"[51].

Il apparait que la détermination de la côte pertinente et sa configuration (longueur, forme, présence d'îles, de hauts-fonds-découvrants et d'autres facteurs géographiques) constituent une circonstance d'une importance particulière dans la délimitation maritime. Elles fondent le titre d'un Etat sur les espaces à délimiter. Comme l'indique la CIJ, le titre d'un Etat sur le plateau continental et sur la zone économique exclusive est fondé sur le principe selon lequel la terre domine la mer du fait de la projection des côtes ou des façades côtières[52].

La terre est la source juridique du pouvoir qu'un Etat peut exercer dans les prolongements maritimes[53]. Qui plus est, c'est la côte, du territoire de l'Etat qui est déterminante pour créer le titre sur les étendues sous-marines bordant cette côte[54].

Martinus Nijhoff Publishers, 2013, p. 139-161; spec. p.145-147.

50 La CIJ indique dans l'affaire du Plateau Continental en mer du Nord, paragraphe 96: "[…] on applique le principe que la terre domine la mer; il est donc nécessaire de regarder de près la configuration géographique des côtes des pays dont on doit délimiter le Plateau Continental".

51 V. CIJ, affaire Libye/Malte, arrêt du 3 juin 1985, le tribunal indique au paragraphe 119: "Les droits qu'un Etat peut prétendre avoir sur la mer sont en rapport non pas avec l'étendue de son territoire derrière ses côtes, mais avec ces côtes et avec la manière dont elles bordent ce territoire. Un Etat dont la superficie est peu étendue peut prétendre à des territoires maritimes bien plus importants qu'un Etat d'une grande superficie. Tout dépend de leurs façades maritimes respectives et de la façon dont elles se présentent".

52 Voir, affaire de la délimitation maritime en mer noire, (Roumanie c. Ukraine), arrêt du 3 février 2009, Rec. CIJ, 2009 paragraphe 77.

53 CIJ, affaire du Plateau Continental en mer du nord, rec. 1969, arrêt du 20 Février 1969, paragraphe 51.

54 CIJ, affaire du plateau continental (Tunisie C. Libye) arrêt du 24 février 1982, paragraphe 73.

Le rôle des côtes pertinentes peut revêtir deux aspects juridiques distincts, quoique étroitement liés, dans le cadre de la délimitation du plateau continental et de la zone économique exclusive. En premier lieu, il est nécessaire d'identifier les côtes pertinentes aux fins de déterminer quelles sont, dans le contexte spécifique d'une affaire, les revendications qui se chevauchent dans ces zones étant donné que l'objet de chaque délimitation est de résoudre le problème du chevauchement des prétentions en traçant une ligne divisoire, de séparation entre les espaces maritimes concernés.

En second lieu, il convient d'identifier les côtes pertinentes aux fins de vérification d'une quelconque disproportion entre le rapport des longueurs de côtes de chaque Etat et celui des espaces maritimes situés de part et d'autre de la ligne de délimitation[55]. La proportionnalité se présente comme le critère de vérification de l'équité d'une délimitation. Elle regarde la longueur de la côte pertinente ou les éléments constitutifs de la superficie des zones maritimes devant revenir à chaque Etats.[56]

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55 Voir l'affaire de la délimitation en mer noire, op.cit. [note 50], paragraphe 78, aussi T.M. NDIAYE op.cit. [note 49], p 149.

56 La Cour Internationale de Justice a parfois eu de la difficulté à déterminer les côtes pertinentes. Dans l'affaire Libye c. Malte, elle dit "(…) de l'avis de la cour, aucune raison de principe n'empêche d'employer le test de proportionnalité, à peu près de la même manière dont on l'a fait en l'affaire Tunisie/Libye, et qui consiste à déterminer les "côtes pertinentes", à calculer les rapports arithmétiques entre les longueurs de côtes et les surfaces attribuées et finalement à comparer ces rapports afin de s'assurer de l'équité d'une délimitation entre côtes se faisant face tout autant qu'entre côtes adjacentes. Mais, dans ce cas, certaines difficultés pratiques peuvent fort bien rendre le test inapproprié sous cette forme. Ces difficultés sont particulièrement manifestes en la présente espèce où, pour commencer le contexte géographique rend la marge de détermination des côtes pertinentes et des zones pertinentes si large que pratiquement n'importe qu'elle variante pourrait être retenue, ce qui donnerait des résultats extrêmement divers ; ensuite la zone à laquelle l'arrêt s'appliquera en fait est limitée par l'existence des revendications d'Etats tiers. Il serait illusoire de n'appliquer la proportionnalité qu'aux surfaces comprises dans ces limites; (…)". Aff. du Plateau Continental Libye/Malte, op.cit. (note 5 supra), paragraphe 74. En revanche, la primauté de la géographie côtière en matière de délimitation est une jurisprudence constante: "il est… nécessaire de regarder de près la configuration géographique des côtes des pays dont on doit délimiter le plateau continental", Affi. du Plateau Continental en mer du nord, op.cit. paragraphe 96 ; " La méthode de délimitation à adopter doit être en rapport avec les côtes des parties qui bordent effectivement le plateau continental", Affaire de la délimitation du plateau continental (Royaume Uni C. France) 1977, RSA, Vol. XVIII, 130, 240 ; "une ligne de délimiation à tracer dans une aire déterminée est fonction de la configuration des côtes" , affaire de la délimitation de la frontière maritime dans la région du Golfe du

En ce qui concerne les lignes de base, elles sont établies dans la convention et permettent de mesurer la largeur des espaces relevant de la juridiction nationale: mer territoriale, zone contigüe, zone économique exclusive et plateau continental. Leur tracé obéit à deux méthodes ; la méthode dite "normale" et celle "des lignes de base droites".

Aux termes de l'article 5 de la Convention:

> "sauf disposition contraire de la convention la ligne de base normale à partir de laquelle est mesurée la largeur de la mer territoriale est la laisse de basse mer le long de la côte, telle qu'elle est indiquée sur les cartes marines à grande échelle reconnues officiellement par l'Etat côtier"[57]

Pour ce qui est des lignes de base droites[58], leur emploi suppose l'existence d'une côte profondément échancrée et découpée ou la présence d'un chapelet d'iles le long de la côte, ou à proximité immédiate de celle-ci. Le tracé des lignes ne doit pas s'écarter sensiblement de la direction générale de la côte et les étendues de mer situées en deçà des lignes droites doivent être suffisamment liées au domaine terrestre pour être soumises au régime des eaux intérieures.

Ces lignes de base droites ne peuvent être tracées vers ou depuis des hauts-fonds-découvrants à moins que des phares ou des installations similaires n'y aient été construits ou que le tracé de telles lignes de base droites n'ait fait l'objet d'une reconnaissance internationale générale.

Qui plus est, ces lignes ne peuvent être tracées de manière telle que la mer territoriale d'un autre Etat se trouve coupée de la haute mer ou d'une zone économique exclusive. Relevons, qu'aux termes de l'article 14 de la

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Maine (Canada C. Etats Unis d'Amérique), arrêt du 12 octobre 1984, Rec. CIJ 1984, p.246, paragraphe 205.

57 Les articles 5,7, 9-11, 13-14 et 16 établissent les règles relatives au tracé des lignes de base qui permettent de mesurer la largeur de la mer territoriale. Il n'en demeure pas moins que les lignes spécifiées dans ces dispositions permettent aussi de mesurer la largeur des autres espaces sous la juridiction de l'Etat côtier. La disposition contraire dont parle l'article 5 concerne: les récifs, les lignes de base droites, l'embouchure des fleuves, les baies, les ports et les hauts-fonds découvrants. ; voir, Robin Churchill, "Coastal Waters", The IMLI Manual on International Maritime Law, Vol. I: The Law of the Sea, General Editor David J. Attard, Oxford university Press, 2014, pp. 1-25.

58 Article 7 de la Convention.

Convention, l'Etat côtier peut, en fonction des différentes situations, établir les lignes de base selon une ou plusieurs des méthodes prévues dans les articles précédents. Il faut aussi noter la nécessité d'asseoir des mesures de publicité en particulier pour les lignes de base droites, leur statut et régime juridique. *Le défi auquel les Etats doivent faire face est l'impact de l'élévation du niveau de la mer sur le tracé des lignes de base* lorsque l'on sait qu'entre 2000 et 2009, ce niveau s'est élevé plus que les 5000 années précédentes[59].

2. La delimitation conventionnelle

La délimitation des espaces maritimes entre voisins est d'une grande importance en ce qu'elle confère stabilité et permanence dans leurs relations mutuelles. Il se trouve que de nombreuses frontières maritimes dans notre monde ne sont pas délimitées. Le nombre total de frontières maritimes

59 Voir J Attenhoffer, "Baselines and Base Points: How the Case Law withstands Rising Sea Levels and Melting Ice" (2010) I Law of the Sea reports, "http://www.asil.org/losreports" (2014); D. Freestone and J. Pethick, "Sea Level Rise and Maritime boundaries " in G.H. blake (ed.), Maritime Boundaries, Rouledge (1994), 73; Dans l'Affaire, "The Bay of Bengal Maritime Boundary Arbitration between the People's Republic of Bangladesh and the Republic of India, award of 7 July 2014", le Tribunal dit, paragraphe 399: " The Tribunal will first address the instability of the coast of the Raimangal and Haribhanga estuary. It notes that the relevant coast of Bangladesh is unstable. In coming to this conclusion, the Tribunal is guided by the documented changes in the size and shape of some formations in the Raimangal estuary. South Talpatty/New Moore Island is one example. The Tribunal does not consider it necessary, however, to go into any detail on this issue, since it does not consider this instability to be a relevant circumstance that would justify adjustment of the provisional equidistance line in the delimitation of the exclusive economic zone and continental shelf. This decision of the Tribunal is not at variance with the judgment of the International Court of Justice in the Territorial and Maritime Dispute between Nicaragua and Honduras in the Caribbean Sea ((Nicaragua v. Honduras), Judgment, I.C.J. Reports 2007, p. 659 at p. 745, paragraph 281). That judgment considered the instability of a coast solely with respect to 116 whether the establishment of base points was feasible. Moreover, as this Tribunal has emphasized in respect of the territorial sea (see paragraphs 214-219, 248 above), only the present geophysical conditions are of relevance. Natural evolution, uncertainty and lack of predictability as to the impact of climate change on the marine environment, particularly the coastal front of States, make all predictions concerning the amount of coastal erosion or accretion unpredictable. Future changes of the coast, including those resulting from climate change, cannot be taken into account in adjusting a provisional equidistance line".

potentielles est de 420[60] et il n'existe qu'environ 200 accords de délimitation à ce jour dont la plupart est entrée en vigueur[61]. C'est dire aussi que le processus n'est pas terminé, d'autant plus que les accords de délimitation existants ne couvrent guère tous les espaces maritimes. Ils ont trait pour la plupart aux plateaux continentaux et laissent indéterminés les autres espaces ; d'où la tendance récente à vouloir asseoir des lignes divisoires uniques qui embrassent toutes les zones sous juridiction nationale. *Il s'agit là d'un défi de taille dans les années à venir.*

La délimitation conventionnelle procède d'une prescription de la convention laquelle prévoit que toute délimitation de la zone économique exclusive et du plateau continental doit être effectuée par voie d'accord. Les articles 15, 74 et 83 de CNUDM ont respectivement trait à la délimitation de la mer territoriale, de zone économique exclusive et à celle du plateau continental. L'article 15 de la CNUDM dispose:

> "Lorsque les cotes de deux Etats sont adjacentes ou se font face, ni l'un ni l'autre de ces Etats n'est en droit, sauf accord contraire entre eux, d'étendre sa mer territoriale au-delà de la ligne médiane dont tous les ponts sont équidistants des points les plus proches des lignes de base à partir desquelles est mesurée la largeur la mer territoriale de chacun des deux Etats".

Cette disposition ne s'applique cependant pas dans le cas où, en raison de l'existence de titres historiques ou d'autres circonstances spéciales, il est nécessaire de délimiter autrement la mer territoriale des deux Etats.

Les articles 74 et 83 de la CNUDM ont un libellé identique et disposent:

> "1. La délimitation de la zone économique [du plateau continental] entre Etats dont les côtes sont adjacentes ou se font face est effectuée par voie d'accord conformément au droit international tel qu'il est visé à l'article 38 du statut de la Cour Internationale de Justice, afin d'aboutir à une solution équitable.

60 Voir, US Dept. Of State, Bureau of oceans and International Environment and Scientific Affairs, Limits in the seas, N° 108; 1st revision, Maritime Boundaries of the World, 1990, 2.

61 Les cinq volumes de J.L. Charney et L.M. Alexander, International Maritime Boundaries, The American Society of International Law, Nijhoff Publishers, 1993, 1998, 2002, 2007 ; et les quatre volumes édités par DOALOS relatifs aux "Accords de Délimitation Maritime", ainsi que le volume 5 de Maritime Boundaries: World Boundaries, édité par Gerald H. Blake, Rouledge, 2002. Ces ouvrages permettent d'avoir une idée sur l'état de la pratique interétatique en la matière.

2. S'ils ne parviennent pas à un accord dans un délai raisonnable, les Etats concernés ont recours aux procédures prévues à la partie XV.

3. En attendant la conclusion de l'accord visé au paragraphe 1, les Etats concernés dans un esprit de compréhension et de coopération, font leur possible pour conclure des arrangements provisoires de caractère pratique et pour ne pas compromettre ou entraver pendant cette période de transition la conclusion de l'accord définitif. Les arrangements provisoires sont sans préjudice de la délimitation finale.

4. Lorsqu'un accord est en vigueur entre les Etats concernés, les questions relatives à la délimitation de la zone économique exclusive [du plateau continental] sont réglées conformément à cet accord."[62].

La pratique conventionnelle relative à la délimitation de la ZEE et du plateau continental est disparate. Les accords de délimitation renseignent très peu sur les principes et méthodes retenus par les Etats dans leurs négociations pour fonder la ligne de délimitation retenue[63].

Et cette pratique n'a pu s'imposer par la voie coutumière. De fait, l'examen du contentieux des délimitations maritimes montrent que les prescriptions conventionnelles n'occupent guère la place centrale que l'on était en droit d'attendre d'elles. Comme le remarque un auteur:

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62 En ce qui concerne la délimitation de la zone économique exclusive comparée à celle du plateau continental, voir: Cour Internationale de justice: affaire du plateau continental (Tunisie/Libye), arrêt du 24 février 1982 ; affaire de la délimitation maritime dans la région située entre le Groenland et Jan Mayen (Danemark c. Norvege), Arrêt du 14 juin 1993 ; Affaire de la délimitation et des questions territoriales entre Qatar et Bahrein (Qatar c. Bahrein) arrêt du 16 Mars 2001 ; affaire de la frontière terrestre et maritime entre le Cameroun et le Nigeria (Cameroun c. Nigeria) arrêt du 10 Octobre 2002 ; Différend relatif à la délimitation de la frontière maritime entre le Bangladesh et le Myanmar dans le golfe du Bengale (Bangladesh/Myanmar), Tribunal International du Droit de la Mer, Affaire N°16, arrêt du 14 mars 2012.

63 Voir V. Leanza et M.C. Caracciolo, "The Exclusive Economic Zone" in the IMLI Manual op. cit [note 11] pp. 177-216 ; "Many of the international bilateral agreements do not deal specifically with the delimitation of this area, but they do delimit the seabed and subsoil marine and the water column. These agreements can be divided into three groups depending on their approach to the issue of delimitation: the first group, certainly the most numerous, uses the delimitation's method of the median or equidistance; [...] the second group merely provides that the delimitation should be made in accordance with international law [...] another group establishes directly the geographical coordinates, without indicating which method was used in the delimitation, or resorts to methods other than that of the median or equidistance" p. 205.

> "In the drafting of these provisions, there was disagreement between the supporters of "equidistance" and the supporters of "equitable principles. The confrontation between the two groups was also linked to another difficult issue concerning peaceful settlement of disputes. Whilst the supporters of "equidistance" were, as part of the package, in favour of establishing a compulsory, third-party system for the settlement of delimitation disputes, the supporters of "equitable principles" generally rejected the idea of compulsory judicial procedures"[64].

C'est sur ces bases que les articles 74 et 83 ont été conçus comme issue de secours ne pouvant guère prétendre à une complétude. Ces dispositions ne font pas référence à une méthode de délimitation, mais énonce seulement que la délimitation doit aboutir à un résultat équitable[65], et l'évocation du statut de la CIJ n'est pas une source de clarté.

Il n'en reste pas moins vrai que les accords de délimitation présentent un caractère objectif, c'est-à-dire qu'ils sont opposables ***erga omnes*** et en cas de succession d'Etats, ils s'imposent au successeur au moment du transfert territorial. C'est ainsi que le principe de ***l'uti possidetis juris*** a été prudemment adopté par les Etats latino-américains dès la proclamation de leur indépendance au 19éme siècle. Ce principe a été reçu en Afrique sous le nom d' "intangibilité des frontières[66]".

Il apparait cependant que le rôle fondamental dans la formulation des règles et principes juridiques devant régir le droit de la délimitation maritime revient à la cour Internationale et aux tribunaux arbitraux. Ces derniers appliquent les règles indiquées par la Cour, tout en y apportant, parfois quelques innovations qui sont reprises par la Cour et ce, dans un jeu d'enrichissement mutuel. Les juridictions internationales ont ainsi permis de développer le droit de la délimitation maritime.

64 V. Tanaka op. cit. [Note 48], p. 200-201; voir aussi, le Virginia Commentaries, Vol II, Dordrecht, Nijhoff. 1993, pp. 796 – 819. Voir aussi, M.D. Evans "Maritime Boundary Delimitation" Oxford Handbook of the Law of the Sea, Oxford University Press, 2015, pp. 254-279.

65 Selon la Cour Internationale de Justice "[…] délimiter avec le souci d'aboutir à un résultat équitable, comme le requiert le droit international en vigueur, n'équivaut pas à délimiter en équité [laquelle] ne constitue pas une méthode de délimitation mais uniquement un objectif qu'il convient de garder à l'esprit en effectuant celle-ci". Affaire de frontière terrestre et maritime entre le Cameroun et le Nigeria (Cameroun c. Nigeria) arrêt du 10 Octobre 2002, paragraphe 294.

66 Voir la Déclaration du Caire du 21 Juillet 1964, voir aussi CIJ, affaire du différend frontalier entre le Burkina Faso et le Mali, Rec. CIJ 1986, p. 566, paragraphe 23.

3. La delimitation juridictionnelle

La CNUDM prévoit que s'ils ne parviennent pas à un accord dans un délai raisonnable les Etats concernés ont recours aux procédures prévues à la partie XV[67]. La délimitation juridictionnelle procède le plus souvent de l'échec de négociations dans la détermination de la frontière maritime entre deux Etats.

De plus, l'existence des zones économiques exclusives et le développement des technologies relatives à l'exploration et à l'exploitation des ressources minérales ont fait de la délimitation des espaces maritimes un problème majeur des temps modernes. En particulier:

> "The increasing recourse to ICJ in matters of maritime delimitation is an element of the general requirement for authoritative settlement of maritime boundaries, whether by agreement, arbitration or judicial award; and this is in turn is a function of the increased possibilities of extraction of the mineral resources of the seabed[68]".

L'on doit noter la tendance des Etats à préférer l'approche bilatérale des questions de délimitation même s'ils se trouvent dans une situation géographique en prise avec plusieurs Etats. La plupart des accords de délimitation sont des accords bilatéraux et les actes introductifs d'instance procèdent le plus souvent de compromis bilatéraux, même dans les circonstances où le juge ou l'arbitre devra tenir dûment compte du droit des tiers, même en cas de non-intervention[69].

La délimitation suppose la connaissance des titres des deux Parties dans la zone concernée. Ainsi, la première question sur laquelle le juge doit se pencher consiste à déterminer si les parties ont des titres concurrents sur l'espace à délimiter[70].

67 CNUDM, arts. 74 (2) et 83 (2).

68 H. Thirlway "recent trends and challenges of the ICJ Jurisprudence", Japanese Yearbook of International Law vol. 55, 2012, pp. 4-30, spec. p. 8.

69 Ibid. p.9 dans les cas d'intervention en la matière, on a plutôt observé une opposition de l'une des parties ou des deux. Ce qui confirme l'approche bilatérale choisie par les Etats.

70 Dans l'affaire du différend territorial et maritime [Nicaragua c. Colombie], arrêt du 19 novembre 2012, Rec. CIJ, 2012, p.624, paragraphe 141, la cour dit: "La Cour commencera donc par définir les côtes pertinentes des parties, à savoir celles dont les projections se chevauchent, la délimitation consistant à résoudre la question du chevauchement des revendications en traçant une ligne de séparation entre les

Le problème de la ligne divisoire dans les zones maritimes de chevauchement a été l'objet d'un contentieux volumineux en ce qui concerne la ZEE. Qui plus est, le plateau continental au-delà de 200 milles marins a pris de l'ampleur et a accru l'intérêt des Etats avec les soumissions faites à la Commission sur les limites du plateau continental et le glissement jurisprudentiel observé depuis quelques décennies.

La délimitation maritime a, en effet, engendré plus d'affaires que tout autre sujet de droit international, que ce soit à la Cour de La Haye, devant les Tribunaux arbitraux et aujourd'hui, devant le Tribunal International du Droit de la Mer et les Tribunaux annexe VII de la CNUDM. De la sorte, il apparait que le rôle fondamental dans la formulation des règles et principes devant régir le droit de la délimitation maritime revient aux juridictions internationales plus qu'à la pratique interétatique[71].

Après avoir déterminé les titres concurrents des Etats concernés, le juge doit se pencher sur la relation qui unit le Plateau Continental et la zone économique exclusive sur les ressources des fonds marins et du sous-sol. Les droits sur le plateau continental sont inhérents par le jeu du régime juridique tandis que la ZEE doit être revendiquée et sa création proclamée par l'Etat[72]. Comme le remarque Y. Tanaka:

> "Considering that the factors to be taken into account may be different for the seabed and superjacent waters, it seems possible that the delimitation line of a continental shelf and an EEZ/FZ would differ as well. A divergence of factors relevant to the seabed and superjacent waters may entail the risk of creating two competing lines dividing coincident areas and create a situation in which part of the EEZ belonging to one state may overlap part of another state's continental shelf. Such a situation would give rise to complex problems relating to jurisdiction[73]."

espaces maritimes". Elle fera observer dans l'affaire du Plateau Continental Tunisie/Libye, Rec.1982, p.61, paragraphe 73 que: "C'est la côte du territoire de l'Etat qui est déterminante pour créer le titre sur les étendus sous-marines bordant cette côte".

71 T.M. Ndiaye op. cit. [Note 49], p. 140.

72 Voir D. Attard, the Exclusive Economic Zone in International Law, Oxford University Press, Oxford 1987; F. Orrego Vincuna, The Exclusive Economic Zone, Cambridge University press, Cambridge, 1989.

73 Y. Tanaka op. cit. [Note 48] p.198. L'auteur explique: "The institution of the EEZ comprises seabed where the EEZ is established [LOSC, art.56 (1)]. Accordingly seabed is no longer the continental shelf, but the seabed of the EEZ. Thus, theorically, such a

Un autre problème difficile a trait au titre sur le plateau continental qui comprend, au terme de la CNUDM, les fonds marins et leur sous-sol au-delà de sa mer territoriale, sur toute l'étendue du prolongement naturel du territoire terrestre de cet Etat jusqu'au rebord externe de la marge continentale, ou jusqu'à 200 milles marins des lignes de base à partir desquelles est mesurée la largeur de la mer territoriale, lorsque le rebord externe de la marge continentale se trouve à une distance inférieure. Autrement dit, le titre au plateau continental se fonde à la fois sur le critère de la distance et sur celui du prolongement naturel. Ce, d'autant que la CNUDM permet à l'Etat côtier de fixer la limite extérieure de son plateau continental, quand celui-ci s'étend au-delà de 200 milles marins[74].

Sur la base des considérations qui précédent, le juge détermine la méthode de délimitation et construit la ligne d'équidistance provisoire. Il examine – s'il y a lieu – les circonstances pertinentes avant de vérifier l'absence de disproportion suivant le paradigme des trois étapes qui se présente aujourd'hui comme la solution au contentieux de la délimitation maritime. De fait, depuis l'affaire du plateau continental en mer du Nord, une vingtaine d'affaires de délimitation ont été soumises aux juridictions internationales et pour la plupart des arrêts ou des sentences ont été rendus.

Au début, la jurisprudence portait sur des délimitations de plateaux continentaux. De nos jours, les juridictions sont appelées à déterminer les frontières maritimes avec une ligne unique traitant de tous les espaces maritimes. En effet, la question juridique très ardue qui se pose est celle de savoir si la ligne du plateau continental doit être ou non exaucée à la colonne d'eau. *Voilà le défi que doivent relever les juridictions internationales*. Dans l'affaire de la délimitation maritime en mer noire, la CIJ indique que:

> "les paragraphes 4 des articles 74 et 83 de la CNUDM sont pertinents pour apprécier la position de la Roumanie selon laquelle les instruments de 1949 ont établi autour de l'Ile des serpents une frontière délimitant les zones économiques exclusives et le plateau continental au-delà du point I. (…) il ressort de la pratique des Etats qu'un nouvel accord est nécessaire pour qu'une ligne retenue soit

single maritime boundary becomes simply the boundary of the EEZ. Strictly speaking, the expression of "a single maritime boundary between the continental shelf and the EEZ might be questioned". Ibid. note de bas de page n° 04.

74 CNUDM, art. 76 paras. 2-7, voir l'affaire Nicaragua c. Colombie op. cit. [Note 24] para. 121.

utilisée pour en délimiter une autre. C'est généralement ce qui se produit lorsque des Etats conviennent d'utiliser la ligne délimitant leur plateau continental pour marquer les limites de leur zone économique exclusive respective[75]".

Il faut noter, par ailleurs, que des instances de délimitation maritime ont été introduites sur le fondement de la juridiction obligatoire c'est à dire sur la base des procédures obligatoires aboutissant à des décisions obligatoires, conformément à la partie XV de la CNUDM. C'est ainsi que quatre affaires ont été soumises aux tribunaux arbitraux de l'annexe VII: Barbade c. Trinité et Tobago; Guyane c. Suriname; Bangladesh c. Inde, et Philippines c. Chine.

3. La determination de la limite exterieure du plateau continental au dela de 200 milles marins

L'on a en vue ici la détermination de la limite extérieure de plateaux continentaux qui s'étendent au-delà des 200 milles marins[76], aussi appelée délinéation. Aux termes de la CNUDM[77], le plateau continental d'un Etat côtier comprend les fonds marins et leur sous-sol au-delà de sa mer territoriale, sur toute l'étendue du prolongement naturel du territoire terrestre de cet Etat jusqu'au rebord externe de la marge continentale, ou jusqu'à 200 milles marins des lignes de base à partir desquelles est mesurée la largeur de la mer territoriale, lorsque le rebord externe de la marge continentale se trouve à une distance inférieure.

Ces dispositions recèlent trois éléments importants. D'abord, la distance de 200 milles marins des lignes de base à partir desquelles est mesurée la largeur de la mer territoriale. Ensuite, la notion du prolongement naturel du territoire de l'Etat côtier, et enfin le rebord externe de la marge continentale. Lorsque le rebord externe de la marge continentale s'étend

75 Affaire de la délimitation maritime en mer Noire (Roumanie c. Ukraine) arrêt, CIJ, Recueil 2009, p.61 paragraphe 69.

76 Voir V. Marotta Rangel, le Plateau Continental dans la Convention de 1982 sur le droit de la mer, RCADI, 1985 – V, tome 194, pp. 342-364 ; L. Lucchini, "L'article 76 de la Convention des Nations Unies du 10 Décembre 1982 sur le droit de la mer" in Le Plateau continental étendu aux termes de la Convention des Nations Unies sur le droit de la mer du 10 décembre 1982. Optimisation de la demande, INDEMER, Paris, Pédone, 2004, pp.9-29; R. Churchill and V. Lowe, the law of the Sea, 3rd ed. Manchester University Press, 1999; D.R. Rothwell and T. Stephens, The International Law of the Sea, Hart Publishing, Oxford and Portland, 2010, pp. 98-119.

77 Article 76 paragraphe 1.

au-delà de 200 milles marins, la limite extérieure du plateau continental est déterminée sur la base du paragraphe 4 de l'article 76, lequel a recours au critère géomorphologique. Se fondant sur des données géologiques et les formes et le contour de la topographie du relief sous-marin, le critère géomorphologique surgit logiquement de la notion de prolongement naturel du territoire de l'Etat côtier[78]. Le critère géomorphologique a donné naissance à l'amendement dit irlandais qui combine deux méthodes qui permettent à l'Etat côtier d'avoir des critères pour fixer le rebord externe de sa marge continentale: il s'agit d'une part de la formule Gardiner et celle d'Hedberg de l'autre. De la sorte, l'article 76 de la CNUDM utilise des concepts géomorphologiques – formules Gardiner et Hedberg – pour déterminer le rebord externe du plateau continental au-delà de 200 milles marins.

La formule Gardiner a trait à l'épaisseur des roches sédimentaires. Elle est énoncée à l'article 76, paragraphe 4(a) (i) qui dispose:

> "(…) l'Etat côtier définit le rebord externe de la marge continentale, lorsque celle-ci s'étend au-delà de 200 milles marins des lignes de base à partir desquelles est mesurée la largeur de la mer territoriale, par:
>
> i) Une ligne tracée conformément au paragraphe 7 par référence aux points fixes extrêmes où l'épaisseur des roches sédimentaires est égale au centième au moins de la distance entre le point considéré et le pied du talus continental».

Cette formule entretient un lien intime avec le critère en usage pour l'évaluation de la présence ou non de ressources en hydrocarbure[79].

La formule Hedberg a trait au 60 milles marins au pied du talus continental. Aux fins de la Convention,

> "L'Etat définit le rebord externe de la marge continentale, lorsque celle-ci s'étend au-delà de 200 milles marins des lignes de base à partir desquelles est mesurée la largeur de la mer territoriale, par ii) Une ligne tracée conformément au paragraphe 7 par référence à des points fixes situés à 60 milles marins au plus du pied du talus continental" [80].

78 Voir V. Marotta Rangel op. cit. [Note 76] p.348; H. Hedberg, "Relation of Political Boundaries on the Ocean Floor", Virginia Journal of International Law, 1976, pp. 57-75.

79 Voir Tanaka, op. cit. [Note 48] p.135.

80 Article 76, paragraphe 4 (a) (ii) de la CNUDM.

Et sauf preuve contraire, le pied du talus continental coïncide avec la rupture de pente la plus marquée à la base de talus[81].

Qui plus est, l'Etat côtier fixe la limite extérieure de son plateau continental en reliant par des droites une longueur n'excédant pas 60 milles marins des points fixes définis par des coordonnées en longitude et en latitude[82].

Il peut choisir entre les formules irlandaises et Hedberg celle qui lui apparait la plus favorable. En revanche,

> "les points fixes qui définissent la ligne marquant sur les fonds marins, la limite extérieure du plateau continental, tracée conformément au paragraphe 4, lettre a), i) et ii), sont situés soit à une distance n'excédant pas 350 milles marins des lignes de base à partir desquelles est mesurée la largeur de la mer territoriale, soit à une distance n'excédant 100 milles marins de l'isobathe de 2 500 mètres qui est la ligne reliant les points de 2500 mètres de profondeur"[83].

Sur une dorsale sous-marine, le paragraphe 6 de l'article 76 prévoit que la limite extérieure du plateau continental ne dépasse pas une ligne tracée à 350 milles marins des lignes de base à partir desquelles est mesurée la largeur de la mer territoriale. Ce paragraphe ne s'applique pas aux hauts-fonds qui constituent des éléments naturels de la marge continentale, tels que les plateaux, seuils, crêtes, bancs ou éperons qu'elle comporte.

La CNUDM a institué la Commission des limites du plateau continental, organe scientifique et technique prévu par le paragraphe 8 de l'article 76 et par l'annexe II de la Convention[84]. Sa tâche consiste à formuler des recommandations sur les demandes présentées par les Etats au titre du plateau continental au-delà de 200 milles marins. L'Etat côtier a seul compétence

81 Article 76, paragraphe 4 (b) de la CNUDM.

82 Article 76, paragraphe 7 de la CNUDM.

83 Article 76, paragraphe 5 de la CNUDM.

84 A. de Marfly-Mantuano, "Les Travaux de la Commission des Limites du Plateau Continental" in Le Plateau Continental étendu, op.cit. [Note 76] pp.31-44 ; D. Roughton and C. Trehearne, "The Continental Shelf" in the IMLI Manual on International Maritime Law, Vol I, the Law of the Sea op.cit.pp.137-175, spéc.pp.154-174. Le paragraphe 8 *in fine* de l'article 76 stipule "La Commission adresse aux Etats côtiers des recommandations sur les questions concernant la fixation des limites extérieures de leur plateau continental. Les limites fixées par un Etat côtier sur la base de ces recommandations sont définitives et de caractère obligatoire".

pour fixer les limites extérieures de son plateau continental au-delà de 200 milles marins. Cependant, il doit le faire sur la base des recommandations édictées par la Commission. La Commission comprend 21 membres, expert en matière de géologie, de géophysique ou d'hydrographie, élus par les Etats-parties à la convention parmi leurs ressortissants[85]. Les membres de la Commission sont élus pour un mandat de cinq ans.

Ils sont rééligibles[86]. Ils ne doivent recevoir d'instructions d'aucun gouvernement ou d'aucune autorité extérieure à la Commission et doivent s'abstenir de tout acte susceptible d'affecter négativement leur image de membre de la Commission[87].

La Commission a deux fonctions essentielles. D'une part, examiner les données et autres renseignements présentés par les Etats côtiers en ce qui concerne la limite extérieure du plateau continental lorsque ce plateau s'étend au-delà de 200 milles marins et soumettre des recommandations conformément à l'article 76, et au mémorandum d'accord adopté le 29 Août 1980 par la troisième conférence des Nations Unies sur le droit de la mer. De l'autre, émettre à la demande de l'Etat côtier concerné, des avis scientifiques et techniques en vue de l'établissement desdites données[88].

La Commission fonctionne par l'intermédiaire de sous-commissions composées de sept membres désignés d'une manière équilibrée compte tenu des éléments spécifiques de chaque demande soumise par l'Etat côtier. Les membres de la Commission qui sont ressortissants de l'Etat côtier qui a soumis une demande, ne peuvent faire partie de la sous-commission chargée d'examiner la demande[89]. La sous-commission soumet ses recommandations à la commission, laquelle les approuve à la majorité des deux tiers des membres présents et votants. Ces recommandations de la Commission sont soumises à l'Etat côtier qui a présenté la demande ainsi qu'au Secrétaire Général de l'ONU[90].

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85 CNUDM, annexe II, article 2, paragraphe 1.

86 CNUDM, annexe II, article 2, paragraphe 4.

87 Règles de procédure de la Commission en date du 17 avril 2008, CLS/40/Rév.1, Rule 11 (CLCS Rules of Procedure).

88 CNUDM, Annexe II, article 3 paragraphe 1.

89 CNUDM, Annexe II, article 5. Il en va de même du membre de la Commission qui a aidé l'Etat côtier en lui fournissant des avis scientifiques et techniques au sujet du tracé. Ibid.

90 CNUDM, annexe II, Article 6.

En raison de la complexité technique de la détermination du rebord externe de la marge continentale et de la limite du plateau continental, la Commission a adopté ses directives scientifiques et techniques le 13 Mai 1999 lesquelles se présentent comme une exégèse autorisée de l'article 76 de la CNUDM[91].

A la date du 26 d'avril 2016, soixante-dix-sept demandes ont été soumises à la Commission. Elle a eu à faire vingt-quatre recommandations aux Etats côtiers concernés. Il faut noter que lorsqu'elle examine les demandes à elle soumises, la Commission se prononce sur le bien-fondé de la limite extérieure du plateau continental au-delà de 200 milles marins ; et elle le fait sur le plan scientifique et technique. Elle s'abstient d'interférer sur les différends de délimitation maritime pendants. Dans ce cas:

> "La Commission n'examine pas la demande présentée par l'Etat partie à ce différend et ne se prononce pas sur cette demande, (sauf)…avec l'accord préalable de tous les Etats parties à ce différend…"[92]

Dès lors, le problème qui se pose est celui de savoir si les juridictions internationales sont outillées pour connaître d'une délimitation d'un plateau continental au-delà de 200 milles marins.

Bien que la détermination de la limite extérieure du plateau continental et la délimitation de la frontière maritime soit deux concepts différents,

91 Voir document CLCS/11 (CLCS Scientific and Technical Guidelines) adopté par la commission le 13 Mai 1999 à sa cinquième session. Le délai de soumission de la demande est de 10 ans à compter de l'entrée en vigueur de la Convention pour l'Etat concerné. Ce délai a été allongé le 29 Mai 2001 [voir SPLOS/72] et la possibilité de soumettre des informations préliminaires sur la limite extérieure du plateau continental au-delà de 200 milles marins, a été offerte aux Etats côtiers [SPLOS/183] le 20 Juin 2008. En ce qui concerne l'interprétation et l'application de la CNUDM dans l'examen des demandes – la Commission étant dépourvue de juristes – il a été envisagé la possibilité d'asseoir un mécanisme de demande d'avis consultatif sur des questions d'interprétation de dispositions autres que l'article 76 et l'annexe II de la Convention. Cependant, la proposition a été retirée et la Commission a décidé d'arrêter l'examen de cette question. Voir le document CLCS/74 du 30 avril 2012 relatif à l'état d'avancement des travaux de la Commission [Discours de son Président]. Voir aussi A.G. Oude Elferink "The Establishment of Outer Limits of the Continental Shelf beyond 200 Nautical Miles by the Coastal State: The possibilities of other States to have an impact on the Process", 2009, 24IJMCL, p.535.

92 Voir CLCS/L/3, annexe 1.

elles entretiennent un lien intime et la plupart des demandes soumises à la Commission ont un lien avec une frontière maritime[93].

Comme le remarque la CIJ, la procédure devant la Commission vise la délimitation de la limite extérieure du plateau continental, et, par conséquent, la détermination de l'étendue des fonds marins qui relèvent des juridictions nationales.

Elle est distincte de la délimitation du Plateau Continental, régie par l'article 83 de CNUDM, qui est effectuée par voie d'accord entre les Etats concernés ou par le recours aux procédures de règlement des différends[94]. La Convention établit une claire distinction entre la délimitation du Plateau continental et le tracé de sa limite extérieure au-delà de 200 milles marins.

En effet, le fait que la limite extérieure du Plateau Continental au-delà de 200 milles marins n'a pas été établie, n'a pas empêché le Tribunal de déterminer l'existence de titre au Plateau Continental entre les Etats concernés. Le Tribunal n'a toutefois pas déterminé la limite extérieure du plateau Continental au-delà de 200 milles marins. Il a plutôt prolongé la ligne divisoire d'en deçà. En ce sens, le Tribunal International du Droit de la Mer a établi un précédent en se reconnaissant compétent pour délimiter – et non tracer la limite extérieure – le Plateau Continental entre deux Etats au-delà de 200 milles marins, dans l'affaire Bangladesh / Myanmar dans le golfe du Bengale.

Il dit:

> "décide qu'au-delà de cette limite de 200 milles marins, la frontière maritime se poursuit le long de la ligne géodésique, visée au paragraphe 5, qui commence au point 11 en suivant un azimut de

93 B. Kwiattkowska, "Submission to the UN Commission on the Limits of the Continental Shelf: The practice of developing states in cases of disputed and unresolved maritime boundary delimitation or other land or maritime dispute, part one" (2013) 28 IJMCL 219, 230; voir aussi B.M. Magnussson " Is there a temporal Relationship between the Delineation and the Delimitation of the continental shelf beyond 200 Nautical Miles" (2013) 28 IJMCL, 465; Bjorn Kunoy " the Delimitation of an Indicative area of Overlapping Entitlement to the outer continental Shelf", BYBIL, 2012, OUP, pp. 61-81.

94 Question de la délimitation du plateau continental entre le Nicaragua et la Colombie au-delà de 200 milles marins de la côte nicaraguayenne, (Nicaragua c. Colombie), Exceptions Préliminaires, arrêt du 17 Mars 2016, p.37, paragraphe 112.

215° ; jusqu'à ce qu'elle atteigne la zone où les droits des Etats tiers peuvent être affectés[95]".

La limite extérieure du plateau continental au-delà de 200 milles marins bénéficie d'un intérêt croissant lié au progrès de la technologie dans l'exploration et l'exploitation des ressources minérales.

Il faut noter que la distinction entre la délimitation du plateau continental et sa délinéation c'est-à-dire le tracé de sa limite extérieure au-delà de 200 milles marins peut ouvrir la voie à la création de ce qu'il est convenu de nommer la "Zone Grise", l' "Alta mar" ou encore l'"Outer triangle"[96].

Dans ladite zone un Etat peut avoir des droits souverains sur le plateau continental tandis qu'un autre Etat a des droits souverains sur les eaux surjacentes de la ZEE. Autrement dit, l'un bénéficie du pétrole tandis que l'autre a pour lui les poissons ; ce qui rend nécessaire la coopération entre les Etats pour les soustraire aux difficultés liées à l'exercice de leurs droits souverains.

La Zone Grise[97] est:

95 Délimitation de la frontière maritime dans le Golfe du Bengale (Bangladesh/Myanmar), arrêt, TIDM Recueil 2012, p.4, paragraphe 6 du dispositif ; voir aussi A.G. Oude Elferink, "ITLOS's approach to the delimitation of the continental shelf beyond 200 Nautical Miles in the Bangladesh/Myanmar Case: Theoritical and Practical Difficulties", in contemporary Developments in International Law, Essays in Honour of Budislav VUKAS, Bril Nijhoff 2015, pp. 230-249; L'auteur explique p.240 "The Tribunal's starting point to the delimitation of the continental shelf beyond 200 nautical miles – that article 83 of UNCLOS does not make a distinction between areas within and beyond that distance – might at first sight seem to be beyond reproach. The wording of the article indeed seems neutral in this respect. However, article 83 is silent on the content of the substantive rules to be applied, but only refers to the result may require applying different principles and rules within and beyond 200 nautical miles. Article 83 in itself thus does not provide support for applying the same delimitation methodology within and beyond 200 nautical miles"; Voir, en outre, B. KUNOY, "the admissibility of a plea to an International adjudicative forum to delimit the Outer Continental shelf prior to the adoption of final recommendations by the by the Commission on the Limits of the continental shelf" (2010) 25 IJMCL, 237; R.R. Churchill, "The Bangladesh/Myanmar Case: Continuity and Novelty in the Law of Maritime Boundary Delimitation", (2012) 1 CJICL, 137; B.M. Magnusson op. cit. [Note 93] P.465.

96 Voir Tafsir Malick Ndiaye "The Judge, Maritime delimitation and the Grey areas" Indian Journal of International Law, 2016, Vol.56, [DOI: 10-1007/s40901-016-0027-2].

97 Dans la duplique des Etats-Unis d'Amérique en l'Affaire du Golfe du Maine, Mr. Colson explique "The final preliminary issue of geographical significance which we call

"An area lying within 200 miles from the coast of one state, but beyond a maritime boundary with another state. One state is excluded from exercising jurisdiction in this area because is lies beyond the maritime boundary, and the other state is excluded from exercising 200-miles-zone jurisdiction because the grey area on its side of the boundary lies beyond 200 miles from its coast. The possibility of creating a grey area stems from the fact that there is a discrepancy between entitlement to the EEZ and the principle applicable to its delimitation. Entitlement to this zone is solely based on distance from the coast, but its delimitation between states can be affected on the basis of principles other than distance from the coast. This results in a line which reaches the outer limit of the EEZ at a point which is non-equidistant from the coast of the states concerned. If such a line

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deal – and then set aside – is the matter of the so-called grey area.

(…) let us turn now to the four reasons we would give to suggest that the grey area is not a matter that should concern the chamber in the case.

First, the grey area issue has been known for some time and to our knowledge it has never deterred States from applying a method or methods other than equidistance method when it was equitable to do so. Second, the three United Nations Law of the Sea Conferences have paid no heed to the grey area issue. Third, State practice has not been concerned with this issue. And, fourthly, the parties have provided a means for dealing with the issue in the Special Agreement.

(…) Figure 109 of our presentation shows two charts – one of the Chile-Peru maritime boundary and the other of the Peru-Ecuador maritime boundary. (…) in the case of the boundary between Chile and Peru, the grey area created by the boundary measure approximately 7.800 square nautical miles. In the case of the boundary between Peru and Ecuador it is smaller, measuring about 400 square nautical miles (…).

We would also point out that areas of various sizes exist wordwide, including such negotiated delimitations as those between Kenya-Tanzania, Colombia-Ecuador, the Gambia-Senegal, Guinea-Bissau-Senegal, the northern boundary between Portugal and Spain, and Brazil-Uruguay.

Accordingly, the fact that a grey area would exist where the United States line or others through the northeast Channel to prevail, is not and unusual circumstance. […] The grey area in this case, which would be created by the United State line, is approximately 5,700 square nautical miles" in CIJ, Plaidoiries, Affaire du Golfe du Maine (Canada/ Etats Unis d'Amérique), vol.VII, pp. 217-220. L'arrêt a été rendu le 12 octobre 1984 par la chambre constituée par ordonnance de la Cour du 20 janvier 1982. (Délimitation de la frontière maritime dans la région du Golfe du Maine, arrêt, CIJ, Recueil 1 1984, p. 246).

is applied to limit the maritime zones of both states involved, a grey area is created" [98].

L'expression de zone grise révèle les incertitudes que recèle son statut juridique. La zone grise renvoie à une région géographique faisant l'objet de prétentions ou réclamations qui se chevauchent et qui portent sur la zone économique exclusive, le plateau continental ou le plateau continental étendu de deux ou plusieurs Etats côtiers[99].

En conséquence, la Zone Grise pose de nombreux problèmes juridiques relatifs aux principes applicables à la délimitation à l'intérieur et au-delà des 200 milles marins ; à la relation entre les droits et titres de la Zone Economique Exclusive et ceux du plateau continental, et en particulier la possibilité ou non de créer une telle zone dans la détermination ***ab initio*** de la frontière ou des limites de la ZEE ou de la mer territoriale[100].

La création d'une zone grise dans la détermination de la frontière relative à la Zone Economique Exclusive ou à la mer territoriale dépend de la relation qui existe entre le titre et la délimitation des espaces maritimes. Le Titre sur

98 A.G. Oude Elferink, "Does Undisputed Title to a Maritime zone Always Exclude its Delimitation: "the Grey Area Issue", the International journal of Marine and Coastal Law, vol. 13, n°2, 1998, pp. 143-192, spec. p. 143.

99 Voir Shaun Lin and Clive Schofield, "Lessons from the Bay of Bengal ITLOS case: stepping offshore for a deeper" maritime political geography", GJ, the Geographical Journal, vol. 180, N° 3, September 2014, pp. 260-264; spec. 260, où les auteurs expliquent que "the ITLOS delimited a maritime boundary with respect to multiple distinct maritime jurisdictional zones (territorial sea, exclusive economic zone and continental shelf) between Bangladesh and Myanmar (Bay of Bengal Case). ITLOS did not however, wholly resolve the issues of marine governance that the two states face in the Bay of Bengal, leaving a number of complex and potentially problematic issues outstanding, including the unique creation of what was termed a "grey area", the governance arrangements for which are open to debate.

100 Dans l'Affaire du Golfe du Maine précitée [Note 97] , le Canada suggére dans son Contre-mémoire (p.239) que la Zone grise pourrait être éliminée en l'attribuant à l'Etat détenteur d'un titre incontesté sur ladite zone, avec pour conséquence trois cas de figure possibles: "1) a boundary which intersects the 200 nautical miles limits in the vicinity of the equidistance line, eliminating or diminishing the grey area ; 2) If the single maritime boundary principle is maintained, one party will have continental shelf jurisdiction in the grey area and neither will have fishery zone or EEZ jurisdiction; and 3) If overlapping jurisdictions are accepted, one party will have continental shelf jurisdiction and the other jurisdiction over the water column". Ce dernier cas de figure est celui retenu dans la jurisprudence de la Baie du Bengal.

ces espaces est tributaire du critère de distance mesurée à partir de la côte à la notable exception des titres historiques.

En revanche, la délimitation de la zone Economique Exclusive ou du plateau continental entre Etats dont les côtes sont adjacentes ou se font face peut s'effectuer sur la base de principes ou de critères autres que celui de la distance mesurée à partir de la côte.

Dans l'affaire de la délimitation de la frontière maritime dans le Golfe de Bengale[101], le tribunal International du Droit de la Mer a appliqué le paradigme des trois étapes[102]. Il a déterminé la méthode de délimitation, construit la ligne d'équidistance provisoire avant de vérifier l'absence de disproportion. Il a décidé que la méthode en l'espèce pour délimiter la Zone économique exclusive et le plateau continental entre le Bangladesh et le Myanmar est la méthode équidistance/circonstances pertinentes[103].

Comme l'a rappelé le tribunal[104], la délimitation suppose l'existence d'une zone faisant l'objet de titres qui se chevauchent. Titre et délimitation sont deux notions distinctes mais complémentaires. Les Parties reconnaissent également la relation étroite entre le titre et la délimitation. Le Bangladesh déclare que: "Le Tribunal doit répondre avant de délimiter à la question suivante: l'une ou l'autre des Parties a-t-elle un titre sur le plateau continental au-delà de 200 milles?". De la même façon, le Myanmar fait observer que " la détermination des droits des deux Etats sur un plateau continental au-delà de 200 milles marins et leur étendue respective est un préalable à toute délimitation".

En l'espèce, les parties ont émis des revendications concurrentes sur le plateau continental au-delà de 200 milles marins. Une partie de cette zone de chevauchement est également revendiquée par l'Inde. Chacune des parties récuse le titre de l'autre sur le plateau continental au-delà de 200 milles

101 Différend relatif à la délimitation de la frontière maritime entre le Bangladesh et le Myanmar dans le golfe du Bengale, Tribunal International du Droit de la Mer, Affaire n° 16, Arrêt du 14 mars 2012, paragraphes 177-340. Bay of Bengal Maritime Boundary Arbitration (Bangladesh/India), Sentence arbitrale du 7 juillet 2014 ; Différend maritime entre le Pérou et le chili, arrêt C.I.J. du 27 janvier 2014 disponible à: www.icj-cij.org/docket/files/137/17930.pdf; différend territorial et maritime entre le Nicaragua et la Colombie, arrêt C.I.J. du 19 novembre 2012, Rec. 2012, p. 624

102 Voir supra, les paragraphes 35 à 60.

103 Arret, op. cit. [Note 101], paragraphe 23.

104 Ibid. paragraphes 397-398.

marins. En outre, le Myanmar affirme que le tribunal ne saurait connaitre de la question du titre du Bangladesh ou du Myanmar sur le plateau continental au-delà de 200 milles marins, car cette question relève de la compétence exclusive de la Commission des limites du plateau continental et non du Tribunal.

La délimitation du plateau continental au-delà de 200 milles marins a engendré une zone grise située au-delà de 200 milles marins de la côte du Bangladesh mais en deçà de 200 milles marins de la côte du Myanmar, qui se trouve néanmoins du côté de la ligne de délimitation relevant du Bangladesh. Les parties se sont opposées quant au statut de la Zone grise et quant à la manière dont il convient de la traiter.

Quoiqu'il en soit *la détermination de la limite extérieure des plateaux continentaux au-delà de 200 milles marins constitue un des plus grands défis des générations* à venir dans la perspective du parachèvement du partage de l'océan initié par l'approche retenue dans la CNUDM.

II. Nouveaux Defis

Les nouveaux défis et perspectives concernent nombre de problèmes apparus après la signature de la CNUDM, et donc qui n'ont pu être couverts par celle-ci même si son préambule énonce que les Etats-Parties à la Convention, sont

> "animés du désir de régler, dans un esprit de compréhension et de coopération mutuelles, tous les problèmes concernant le droit de la mer (…) et conscients que les problèmes des espaces marins sont étroitement liés entre eux et doivent être envisagés dans leur ensemble".

Ces problèmes ne sont pas prévus par la Convention, et qui, pour être traités, suppose non seulement une coopération multilatérale très soutenue mais en outre une imagination assez fertile aboutissant à des interprétations ayant la faveur du plus grand nombre. La tendance actuelle et l'objet des discussions en cours dans le monde en ce qui concerne le droit de la mer montrent qu'aujourd'hui tout tourne autour de ce que l'on appelle la gouvernance des mers et des océans[105] qui prend de l'ampleur. Comme on l'a fait observer:

105 Voir J.M. Van Dyke, D. Zaelke and Hewison (eds.), Freedom for the Seas in the 21st century; Ocean Governance and Environmental Harmony (Washington DC, Island Press, 1993; M. Haward and J. Vince, Oceans Governance in the Twenty first Century: Managing the Blue Planet, Cheltenham, Edward Elgar, 2008.

> "Many contemporary oceans threats including overfishing, climate change and other pollution problems, and security concerns such as the trafficking in weapons of mass destruction and other illicit cargos, pose profound challenges to an issue-by-issue and zone-by-zone approach to oceans management[106]".

Pour le moment, le débat a trait aux activités menées en haute mer et qui regardent la bonne gouvernance. C'est que, pour l'essentiel, les Etats côtiers sont rebelles à des discussions qui pourraient remettre en cause leurs droits souverains acquis de haute lutte, avec la consécration de la notion de zone économique exclusive.

En revanche, les nouveaux défis auxquels le monde doit faire face débordent la ZEE et interpellent la communauté des Etats dans son ensemble. Il suffit de songer à la gestion et la conservation des ressources biologiques de la haute mer (A), les conséquences du changement climatique et le droit de l'environnement (B), les ressources génétiques des fonds marins (C), la piraterie (D), la mise en œuvre de l'article 82 de la Convention (E) et la fonction consultative du Tribunal (F) que nous allons examiner dans cet ordre.

1. La gestion et la conservation des ressources biologiques de la haute mer

La consécration de la notion de ZEE par la CNUDM, censée mettre un terme au conflit d'intérêts entre Etats côtiers et ceux disposant de flottilles à grand rayon d'action ne fit que l'exaspérer. La jouissance par l'Etat côtier de droits souverains aux fins d'exploration et d'exploitation, de conservation et de gestion des ressources naturelles, biologiques ou non biologiques, des eaux surjacentes aux fonds marins dans sa zone économique exclusive a eu pour effet de déplacer la flottille de ce qui était considérée comme la haute mer vers les secteurs adjacents aux zones économiques exclusives où la proportion des captures s'est amplifiée[107].

106 Voir, D.R. Rothwell and T. Stephans, The International Law of the Sea, Hart Publishing, Oxford, 2010, p. 461; D.R. Rothwell ans D.L. Vander Zwaag (eds.), Towards Principled Oceans Governance: Australian and Canadian Approaches and Challenges, London, Rouledge, 2006, p. 3.

107 Voir, FAO, state of the World Fisheries and Aquaculture, à www.fao.org/DOCREP/003/X8002E/8002e 04.htm#Po. O, 1 Octobre 2004; D. Montaz " L'accord relatif à la conservation et à la gestion des stocks de poissons chevauchants et de grands migrateurs", AFDI, [vol. 41, 1995, pp. 676-699] ; Le Directeur Général de la FAO a

Cette situation résulte de la politique de subventions étatiques laquelle a facilité la mise en service de nombre de bateaux de pêche de sorte que la jauge brute officielle de la flottille mondiale a augmenté de manière exponentielle, mettant en danger la durabilité de la ressource.

C'est que la capacité de prélèvement des bateaux de pêche s'est accrue de manière significative en raison des techniques de pêche mises en œuvre, ce d'autant que la technologie est très au point. Les innovations sont de plus en plus étonnantes, en particulier dans le domaine du repérage du poisson: utilisation des aéronefs et du sonar dans la pêche à la senne coulissante et dans le chalutage guidé. L'Utilisation nouvelle des chaluts flottants, les nouvelles manœuvres de filet, les pompes à poisson, la génération de l'emploi des fibres synthétiques, les nouvelles techniques de congélation et de traitement du poisson, les bateaux-gigognes, navires-usines accompagnés de nombre de bateaux de tonnage moindre chargés de pêcher le poisson et reposant sur un réseau étendu de ports de complaisance ou d'abris naturels où se font les déchargements les réparations et autres rotations des équipages.[108]

Cet arsenal engendre des captures indiscriminées et fortuites en même temps qu'il détruit l'habitat marin et empêche la reproduction des poissons[109]. La conséquence qui s'y attache est la surpêche, la surexploitation des stocks et surtout la présence très inquiétante de la pêche illicite non déclarée et non réglementée[110], désastreuse et destructrice à la fois pour l'économie maritime et l'écosystème mondial. La pêche illicite est très organisée. Les bateaux pirates développent impunément leurs activités, étant persuadés de toujours échapper au contrôle étant donné que les Etats n'ont pas toujours les moyens d'asseoir une véritable police des pêches et que les eaux sous leur juridiction ne bénéficient pas toujours de la surveillance nécessaire. Comme

indiqué que "Consequently today there are too many vessels chasing too few fish" in www.fao.org/WAICENT/OIS/PRESSNE/Press Release 1 Octobre 2001.

108 Voir FAO, Collaboration entre institution internationale dans le domaine des pêches, document COFI/71/g (b), Annexe III, p. 15 ; Tafsir Malick Ndiaye "La pêche illicite, non déclarée et non réglementée en Afrique de l'Ouest", in Liber Amicorum Raymond Ranjeva, Paris, Pédone 2013, pp. 233-264, spéc. 235; Baird Rachel, "Illegal, Unreported and Unregulated Fishing: An Analysis of the legal, Economic and historical Factors Relevant to its Development and Persistence" (2004), Melbourne journal of International Law 13; 5 (2), pp. 299-335.

109 Voir M. Savini "La réglementation de la pêche en haute mer par l'Assemblée Générale des Nations Unies. A propos de la Résolution 44/225 sur les grands filets maillants dérivants" AFDI 1990, p. 777.

110 T. M Ndiaye op. cit.[Note 108] p. 235 – 236; R. Baird op. cit. [Note 108] p.300.

le fait observer Rachel Baird:

> "Tactics such as sharing intelligence, reflagging to non-members of RFMO's challenging the vessel name and call sign, and creating elaborate corporate webs to conceal ownership are indicative of an emerging corporate element in IUU fishing. Furthermore, IUU fishers have exploited limitations in the international law of the sea which were not apparent when the UNCLOS was negotiated"[111].

Pour assurer la durabilité des stocks chevauchants et grands migrateurs ainsi que les autres ressources biologiques adjacentes à leurs zones économiques exclusives, les Etats côtiers ont initié des actions diplomatiques qui aboutiront à l'accord relatif à la conservation et à la gestion des stocks chevauchants et de grands migrateurs.[112]

Cet accord se préoccupe essentiellement de la gestion et la conservation des ressources biologiques de la haute mer. Il établit les principes devant régir la conservation et la gestion des pêcheries, il dresse les obligations et pouvoirs de police de l'Etat du pavillon.

Les Etats côtiers et les Etats qui se livrent à la pêche en haute mer doivent coopérer pour assurer la durabilité des stocks concernés ; mettre à profit les données scientifiques les plus fiables ; appliquer l'approche de précaution; réduire au minimum la pollution, les déchets, les rejets, les captures par des engins perdus ou abandonnés, les captures d'espèces de poissons et autres non visés, et l'impact sur les espèces associées ou dépendants et en particulier les espèces menacées d'extinction ; protéger la diversité biologique dans le milieu marin; prévenir et éliminer la surexploitation et la surcapacité et veiller à l'exploitation durable des ressources halieutiques;

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111 Ibid.

112 "Accord aux fins de l'application des dispositions de la CNUDM du 10 décembre 1982 relatives à la conservation et à la gestion des stocks de poissons dont les déplacements s'effectuent tant à l'intérieur qu'au-delà des zones économiques exclusives (stocks chevauchants) et des stocks de poissons grands migrateurs", Doc A/conf. 164/33, adopté par consensus le 4 août 1995, et entré en vigueur en Décembre 2001. Voir M.W. Lodge and S.N. Nandan, "Some suggestions towards Better Implementation of the United Nations Agreement on Straddling Fish Stocks and highly Migratory Fish Stocks of 1995" (2005) 20 IJMCL 345; R. Chruchill "Fisheries and their Impact on the Marine Environment: UNCLOS and Beyond" in M.C.RIBEIRO (ed.), 30 years after the signature of UNCLOS: The Protection of the Environment and the Future of the Law of the Sea, in Proceedings of the International Conference, Faculty of Law, University of Porto, 15-17 November 2012, pp. 23-53, spec. pp. 35-36.

prendre en compte les intérêts de la pêche artisanale et de subsistance; recueillir et mettre en commun des données complètes ; encourager et pratiquer la recherche scientifique pour améliorer la conservation et la gestion des pêcheries ; et appliquer et veiller à faire respecter des mesures de conservation et de gestion grâce à des systèmes efficaces d'observation, de contrôle et de surveillance.[113]

L'accord institue un mécanisme de coopération internationale relatif aux stocks. Les Etats côtiers et les Etats qui se livrent à la pêche en haute mer doivent coopérer soit directement soit par l'intermédiaire des organisations ou arrangements de gestion des pêcheries sous-régionaux ou régionaux compétents pour asseoir des mesures de gestion et de conservation des pêcheries. Seuls les Etats qui sont membres de ces organisations ou qui acceptent d'appliquer les mesures de conservation ont accès aux ressources halieutiques auxquelles s'appliquent ces mesures.[114]

La CNUDM prévoit que l'Etat du pavillon[115] doit exercer effectivement sa juridiction et son contrôle sans les domaines administratif, technique et social sur les navires battant son pavillon. Ces dispositions de caractère général sont complétées par l'accord sur les stocks chevauchants lequel institue un système de contrôle des navires de pêche en haute mer par l'Etat du pavillon en soumettant leurs activités à des licences ou autorisations à délivrer par l'Etat du pavillon.[116] L'Etat du pavillon doit ouvrir une "une enquête

113 Article 5 de l'Accord sur les stocks chevauchants op. cit. [Note 112].

114 Ibid. article 8 paragraphe 1. La contribution essentielle de l'accord sur les stocks chevauchants à cet égard "is to define the desirable institutional characteristics of an effective RFMO by listing, in a legally binding form, the matters upon which states are expected to agree in order to bring about the *sustainable management* of fisheries. These include agreement on conservation and management measures to ensure long term sustainability, agreement on participatory rights such as allocations of allowable catch or levels of fishing effort, agreement on decision-making procedures that facilitate the adoption of conservation and management measures in a timely and effective manner, and agreement on mechanisms for obtaining, scientific advice and ensuring compliance with and enforcement of conservation and management measures" in Recommended Best Practices for RFMO's, Report of a panel to develop a model for improved governance by RFMO, M. Lodge (dir.), Chatham house, April 2007, pp. 4-5.

115 Article 94 relatif aux Obligations de l'Etat du pavillon.

116 Voir l'article 18 de l'accord dont le paragraphe 3 prévoit "un registre national des navires de pêche autorisés à pêcher en haute mer". Cet article 18 rappelle singulièrement l'accord adopté le 23 novembre 1993 par la Conférence de la FAO ("Compliance Agreement").

approfondie" et doit engager sans retard les poursuites judiciaires s'il dispose de preuves suffisantes en cas d'allégations de contravention; les autres Etats devant coopérer à cette fin.[117] L'accord confère des pouvoirs de police aux Etats autres que l'Etat du pavillon. Il met en place une réglementation détaillée en matière d'inspection, d'arraisonnement et d'enquête susceptible de faire face – le cas échéant – aux défaillances de l'Etat du pavillon[118].

Des instruments à caractère obligatoire et non obligatoire concernant les pêcheries ont été élaborés sous les auspices de la FAO. Deux traités ont ainsi vu le jour: l'accord sur la conformité de 1993 et l'accord sur les mesures du ressort de l'Etat du port. L'intention initiale qui a motivé la rédaction du projet et les négociations concernant l'accord sur la conformité était de traiter la pratique du changement de pavillon pour échapper aux contrôles, pratique appelée repavillonnement d'un navire ("reflagging")[119].

Faute de consensus sur cette question, les délégués se sont concentrés sur la notion de responsabilité de l'Etat du pavillon et la "libre circulation de l'information sur les opérations de pêche en haute mer"[120].

En ce qui concerne la responsabilité de l'Etat du pavillon, chaque partie est tenue de prendre les mesures qui peuvent être nécessaires pour s'assurer que les navires de pêche autorisés à battre son pavillon n'exercent aucune activité susceptible de compromettre l'efficacité des mesures internationales de conservation et de gestion[121].

Lorsqu'elle accorde l'autorisation de pêcher, la partie doit s'assurer qu'elle est en mesure d'exercer efficacement des responsabilités que lui confère l'accord envers ce navire. De plus, l'accord exige de l'Etat du pavillon qu'il prenne des mesures coercitives. Qui plus est, l'Etat du pavillon est tenu de s'assurer que les navires sont marqués et de fournir les informations

117 Articles 19 et 20 de l'accord.

118 Article 21 très détaillé de l'accord ; Voir en outre, Tafsir M. Ndiaye "La pêche illicite…" op. cit. [note 108]. pp. 241-243.

119 Voir G. Moore, "The FAO Compliance Agreement" in M. Nordquist and J. More (eds.), Current Fisheries Issues and the FAO of the United Nations, Martinus Nijhoff Publishers, The Hague, 2000, p.78.

120 Ibid. Le libellé official de l'accord est "Accord visant à favoriser le respect par les navires de pêche en haute mer des mesures internationales de conservation et de gestion", adopté le 23 novembre 1993. Il est entré en vigueur le 24 avril 2003.

121 Article 3, paragraphe 2.

nécessaires concernant les opérations de pêche, leurs captures et leurs débarquements[122].

En ce qui concerne l'Accord sur les mesures du ressort de l'Etat du port, il faut rappeler qu'à la lumière du plan d'action international contre la pêche illicite, non déclarée et non réglementée et du dispositif type FAO de 2005 relatif aux mesures du ressort de l'Etat du port, la FAO a organisé à Rome une consultation technique chargée de rédiger un instrument juridiquement contraignant relatif aux mesures du ressort de l'Etat du port. Trois sessions de la consultation technique ont été tenues[123]. Cette consultation a donné le Projet d'Accord sur les mesures du ressort de l'Etat du port visant à prévenir, contrecarrer et éliminer la pêche illicite, non déclarée et non réglementée en date du 18 mai 2009[124]. L'Accord vient d'être ratifié par six Etats, le 16 mai 2016[125] portant à 30 le nombre de ratifications c'est-à-dire plus que les 25 ratifications requises pour son entrée en vigueur. Il est entré en vigueur le 5 juin 2016.

Des instruments à caractère non obligatoire concernant les pêcheries ont aussi été élaborés sous les auspices de la FAO. Il s'agit du Code de conduite pour une pêche responsable et de quatre instruments de caractère volontaire élaborés dans le cadre de ce code et relatifs à des questions spécifiques.

Le Code, qui est exhortatoire ou recommandatoire, doit être interprété et appliqué conformément aux règles pertinentes du droit international telles que reflétées dans la CNUDM[126] et conformément à l'Accord sur les stocks chevauchants ainsi qu'à d'autres règles applicables y compris celles énoncées au chapitre 17 d'action 21.

Le code détaille les principaux éléments constitutifs d'une pêche responsable: principe généraux, gestion des pêcheries, opérations de pêche, aquaculture, intégration des pêcheries et la gestion des zones côtières, pratiques après les captures et commerce, recherche sur les pêcheries.

122 Voir R. Rayfuse, "To our Children's Children's children: From Promoting to Achieving Compliance in High seas Fisheries", International journal of Maritime and coastal Law, vol. 20, n°3 et 4, 2005, p.514; voir en outre l'article 3 pragraphes 6, 7 et 8 de l'Accord.

123 Du 23 au 27 juin 2008; du 26 au 30 janvier 2009 et du 4 au 8 mai 2009.

124 Voir ftp://ftp.fao.org/FI/DOCUMENT/tc-psm/2009/PSM Agreement f. pdf.

125 Il s'agit de: Dominica, Guinée-Bissau, Soudan, Thaïlande, Tonga et Vanuatu. Adopté comme Accord FAO en 2009, après plusieurs années d'efforts diplomatiques, cet Accord est le premier traité international contraignant qui porte expressément sur la pêche illégale.

126 Code de conduite pour une pêche responsable, article 3, paragraphe 1.

En ce qui concerne les autres instruments portant sur des questions spécifiques, ils sont conçus sous forme de plans d'action et en particulier, le Plan d'action international visant à prévenir, à contrecarrer et à éliminer la pêche illicite, non déclarée et non réglementée. Ce plan a été adopté par consensus à la vingt-quatrième session du comité des pêches et par le Conseil de la FAO à sa cent-vingtième session, le 23 juin 2001. Ce plan d'action est un instrument de référence pour les Etats qui sont en train d'élaborer leur plan d'action national contre la pêche INN[127].

Si l'Etat côtier jouit de larges pouvoirs reconnus par l'article 56 et de nombre de droits listés à l'article 62 de la CNUDM, il n'en demeure pas moins que plusieurs problèmes importants se présentant comme des activités connexes à la pêche, et qui sont des niches possibles de pêche INN, ne sont pas envisagés par la Convention. Il suffit de penser aux activités des bateaux d'appui qui se livrent à l'avitaillement ("Bunkering"), au transbordement ; au transport du poisson congelé par les navires de transport frigorifique ("Reefers") ou encore aux activités de transformation sur les chalutiers telles que le filetage.

Lorsque ces différentes activités sont menées dans la ZEE, il est possible que la CNUDM reste en-deçà de la pratique des Etats laquelle permet, avec la jurisprudence[128], de trouver des éléments de réponse à des problèmes non réglés par la Convention.

Le défi fondamental a relevé ici regarde la nature des obligations relatives à la conservation et à la gestion des ressources biologiques de la haute mer.

Ces obligations sont proprement molles et rappellent moins le caractère obligatoire que l'exhortatoire ou le recommandatoire[129]. Elles tournent –

127 Les Etats suivants ont adopté leur plan d'action national contre la pêche INN sur la base du Plan d'action de la FAO: Cambodge, Canada, Espagne, Etats-Unis, Koweït, Lettonie, Mexique, Norvège, Nouvelle Zélande et Vénézuela. Voir aussi le document A/63/128 ; l'Union 1005/2008 portant création d'un système communautaire visant à prévenir, contrecarrer et éliminer la pêche INN, le 29 septembre 2008.

128 Voir par exemple, la demande d'avis consultatif de la CSRP au Tribunal International du Droit de la Mer, Affaire n°21, avis du 2 avril 2015.

129 Voir, R. Baird op. cit.[note 62] p.308; UNDOALOS, the Law of the Sea: The regime for High-Seas Fisheries, Status and Prospects, 1992, 26, paragraphe 78; R. Churchill op. cit.[Note 108] p.48; Y. Tanaka, "The Changing Approaches to conservation of Marine Living Resources in International Law", Zao RV 71 (2011), pp.291-330, spec.297-301.; G.L. Kesteven, "MSY Revisited: A Realistic Approach to Fisheries Management and Administration", Mar. Pol'y 21 (1997), 73; S.A. Murawski, "Ten Myths Concerning Ecosystem Approaches to Marine Resource Management" Mar. Pol'y 31 (2007), pp. 681 et ss.

pour l'essentiel – autour de l'obligation de coopération des Etats lesquels doivent négocier en vue de prendre à l'égard de leurs ressortissants des mesures de conservation[130]. La CNUDM ne contient guère de directives spécifiques destinées à mettre en œuvre cette obligation de caractère très général ni à évaluer son efficience. L'exercice par l'Etat du pavillon de sa juridiction et son contrôle sur les navires battant son pavillon sont très relâchés à cause de la mollesse des obligations qui pèsent sur lui.

Il suffit de penser à la pratique du repavillonnement ("reflagging") et les manipulations liées au consentement de l'Etat[131] ainsi qu'à la question du

130 Articles 117 et 118 de la CNUDM, voir aussi les articles 5, 8 et 10 de l' (Accord sur les stocks chevauchants op. cit.[note 66].

131 Une illustration pertinente de ces manifestations est offerte par le principe de l'effet relatif des traités à l'égard des tiers, qui se présente comme un instrument de limitation juridique à la disposition des Etats tiers qui peuvent se soustraire aux mesures édictées dans les conventions régionales de pêche. La règle établie, de droit coutumier, est posée dans les conventions de Vienne. Un de ses aspects énonce qu'un traité ne crée ni droits ni obligations pour un tiers, consacrant le respect du consentement: Pacta tertiis nec nocent nec prosunt, ou res inter alios acta aliis neque nocet neque prodest.

L'on peut distinguer les droits et les obligations créés par les traités en s'appuyant sur la jurisprudence. Pour les droits, la sentence arbitrale dans l'affaire de l'Ile Clipperton (28 janvier 1931) et celle de l'affaire des Forêts du Rhodope central (29 mars 1933). En ce qui concerne les obligations, l'on peut citer la sentence arbitrale en l'affaire de l'Ile Palmas (4 avril 1928), l'arrêt de la Cour permanente de justice internationale dans l'affaire de la Juridiction territoriale de la Commission internationale de l'Oder (10 septembre 1929) et l'arrêt de la CPJI du 7 juin 1932 en l'affaire des Zones franches en Haute Savoie et dans le pays de Gex.

En terme pratique des Etats pêcheurs, détenteurs de flottilles à grand rayon d'action choisissent délibérément de ne pas devenir parties aux Conventions instituant les Organismes régionaux de gestion des pêches qui régissent la haute mer pour se soustraire aux mesures de gestion et de conservation des ressources biologiques de la haute mer. Autrement dit "this means that regional efforts to manage high seas fisheries can be undermined either by noncompliant third party states or by states who do "sign up" to the relevant convention but who exercise their right to avoid compliance with selected measures (…) In the context of identifying strategies for the elimination and deterrence of IUU fishing, the consent of flag states is required to impose tighter, more effective flag state controls. Flag state consent is also required for the effective implementation of the Catch Documentation Scheme and the Vessel Monitoring System (VMS) in addition to any further limitations on the freedoms of high seas fishing states", R. Baird op. cit. [Note 108] p.311; voir aussi Erik Franckx, "Pacta Tertiis and the Agreement for the Implementation of the Stradding and Highly Migratory Fish Stocks Provisions of the United Nations Convention on the Law of the Sea", Tulane Journal of International and

lien substantiel. Mais alors, comment relever le défi et quelles perspectives offrir?

L'adoption de nouveaux instruments juridiques n'est certainement pas la solution[132]même si le besoin de renforcer le dispositif de mesures contraignantes s'avère nécessaire. Il faut se réjouir – à ce propos – de l'entrée en vigueur de l'Accord sur les mesures du ressort de l'Etat du port, intervenue le 5 juin 2016 avec les six nouvelles ratifications enregistrées le 16 mai 2016.

En revanche, comme le fait remarquer Robin Churchill:

> "In any case, if past practice is anything to go by, any additional law/ soft law measures would be likely to be centred exclusively or largely on high sea fishing, whereas non-sustainable fishing is a least as much a problem in fisheries within national jurisdiction. Instead of further legislation, the following types of action may prove more useful"[133].

Comparative Law, vol.8, 2000 pp.49-81; Convention de Vienne sur le Droit des Traités du 23 mai 1969, article 34. (Entrée en vigueur le 27 janvier 1980)

132 En effet, ce que l'on pourrait qualifier de charte internationale de la pêche est très fournie: CNUDM (1982), Accord de conformité (1993), Accord des Nations Unies sur les stocks chevauchants (1995) ; Accord sur les mesures du ressort de l'Etat du port (2009) ; en ce qui me concerne les instruments de caractère non obligatoire: code de conduite pour une pêche responsable (1995) et les quatre plans d'action internationaux, en particulier le plan d'action international de la FAO pour lutter contre la pêche INN (2001) ; Directives pour la pêche dans les fonds marins (guidelines for deep-sea fishing) (29 août 2008).

133 L' auteur fait huit propositions: "Financial and technical assistance to improve the capacity of poor states to manage their EEZ fisheries effectively ; tackling subsidies ; Prohibiting imports of fishery products taken in IEU fishing as the EU and the USA have been doing for the past three or four years; The encouragement of ethical consumerism through development of better labelling and certification schemes; The establishment of more marine protected areas both within and beyond national jurisdiction; the extension of the ethical consumerism from sustainable fishing to fishery products not damaging the wider marine environment and prohibiting imports of fishery products taken in contravention of agreements", R. Churchill op. cit.[Note 112], pp. 49-52.

Ces différentes propositions pourraient être utilement complétées par la traduction en mesures concrètes des principes très pertinents, figurant à l'article 2, du Code de conduite de la FAO pour une pêche responsable relatif aux objectifs du Code ; Voir en outre, le Rapport du Secrétaire Général des Nations Unies, Les Océans et le droit de la mer, du 1er septembre 2015, A/70/74/Abd.1, pp. 21-24, paragraphes 74-83 ; OCDE, Green Growth in Fisheries And Aquaculture, Etudes de l'OCDE sur la croissance

Ces propositions, couplées aux objectifs du Code de conduite pour une pêche responsable et, mises en œuvre de manière coordonnée par les Etats côtiers, l'Etat du pavillon et l'Etat du port, chacun en ce qui le concerne, pourraient se révéler d'un grand profit pour la communauté des Etats.

Il faut se réjouir des mécanismes d'enregistrement électroniques des prises adoptées par les ORGP, notamment la CICTA, de l'incorporation du système de numérotation de l'OMI et du Lloyd's Register dans les bases de données publiques sur les navires de pêche comme à la Commission des Pêches du Pacifique Occidental et Central. (CPPOC). Il faut aussi encourager la coopération entre Etats en ce qui concerne l'inscription sur les listes de navires se livrant à la pêche INN et la réalisation d'évaluations conjointes des stocks.

2. Les consequences du changement climatique

Les conséquences du changement climatique sur les océans sont appelées à figurer pendant longtemps à l'ordre du jour du droit de la mer dans les années à venir et risquent d'occuper nombre d'institutions internationales. Le rapport de 2010 du secrétaire général des Nations Unies relatif aux Océans et le droit de la mer souligne les divers aspects de ces conséquences: "augmentation du niveau des mers ; la fonte des glaces de l'océan arctique ; la question de l'acidification des océans ; les difficultés de la biodiversité marine ; l'augmentation de la fréquence des événements météorologiques extrêmes et les transferts dans la distribution des espèces biologiques"[134]. C'est pourquoi, l'Assemblée générale des Nations Unies continue de souligner qu'il est urgent de s'attaquer aux effets des changements climatiques et de l'acidification des océans sur le milieu marin et la diversité biologique marine et recommande un certain nombre de mesures[135]. Une des mesures-phares se trouve être la sensibilisation de l'opinion aux effets néfastes des changements climatiques sur les océans[136].

En effet, dans le cadre de son mandat révisé, approuvé par l'Assemblée

verte, Paris, Editions de l'OCDE, 2015, disponible sur http://dx.doi.org/10, 1787/9789264232143-en.

134 Voir document des Nations Unies A/65/69/Add.2, paragraphe 374.

135 AG de l'ONU, Résolution 69/245.

136 Voir, Rapport du Secrétaire Général des Nations Unies "Les océans et le droit de la mer", du 1er Septembre 2015, doc. A/70/74/Add.1, p. 40, paragraphe 142.

générale, ONU-Océans, mécanisme de coordination inter-institutions pour les questions liées aux océans et aux zones côtières, a continué de s'attacher en priorité à mettre en place une base de données consultable en ligne contenant un inventaire des mandats et des activités[137]. En conformité avec son mandat[138], le coordonnateur d'ONU-Océans a entretenu la seizième réunion du processus consultatif sur les travaux de ce mécanisme[139]. ONU-Océans a en outre organisé, en marge de la conférence des Parties (COP 21) à la Conférence-Cadre des Nations Unies sur les changements climatiques à Paris, une session d'information sur les activités des membres d'ONU-Océans relatives à la question des Océans et des changements climatiques et à l'acidification des Océans[140].

C'est que la question des changements climatiques est un *objet de préoccupation mondiale*. Elle est multidimensionnelle[141] en ce qu'elle couvre les domaines les plus divers et les plus dissemblables[142].

137 Ibid.

138 Voir Résolution 68/70, annexe.

139 Voir www.un.oceans.org.

140 Voir aussi, http: // unfccc.Int/files/meetings/ Bonn_jun_2015/

application/pdf/un_oceans_statement_long_final_draft_rev_(3) pdf.

141 Voir le document des Nations Unies précité A/65/69/add.2, paragraphe 374 ; R. Rayfuse and Scott (eds.) International law in the Era of Climate Change, London, 2012; Dryzek, Norgaard and Schlosberg (eds.), Oxford Handbook of Climate Change and Society Oxford, 2011; A. Boyle, "Climate Change and Ocean Governance", in M.C. RIBEIRO (ed.), 30 years after he signature of the UNCLOS … op. cit.[Note 112], pp. 357-382, où l'auteur écrit: "Rather, the important lesson is that climate change should be on the negotiating agenda of all international institution whose mandate is affected by it. It is a human rights issue. It is a trade issue. It is also an issue for IMO and those convention secretariats responsible for protecting the marine environment pursuant to part XII of the 1982 Convention", p. 358.

142 Comme l'indique le Rapport de synthèse de 2014 destiné aux décideurs: "1) Human influence on the climate system is clear … recent climate changes have had widespread impacts on human and natural systems; 2) many of the observed changes are unprecedented; 3) the atmosphere and oceans have warmed, that amounts of snow and ice have diminished, and sea level has risen; 4) anthropogenic greenhouse gas emissions are extremely likely to have been the dominant cause of the observed warming since the mid-20th century; 5) Continued emissions … will cause further warming and long-lasting changes … increasing the likelihood of severe, pervasive and irreversible impacts; 6) Limiting climate change would require substantial and sustained reductions in greenhouse gas emissions; 7) It is very likely that heat waves will occur more often and last longer, and that extreme precipitation events will become more intense in

Comme l'indique Ph.Sands:

> "It is plain that climate change poses significant challenges to international law. The subject transcends the classical structure of an international legal order that divides our planet into territorially defined areas over which states are said to have sovereignty. Issues associated with climate change permeate national boundaries: emissions or actions in one state will have adverse consequences in another, and in areas over which states have no jurisdiction or sovereignty. (…) there is no other issue like climate change, where the sources of the problem-according to the IPCC-are so many and so broad, requiring actions that touch upon virtually every aspect of human endeavor and action. Each of us contributes to climate change; each of us will be affected by climate change[143]."

Étant donné la prolificité des problèmes posés par les changements et surtout leur différence de nature, plusieurs critères de spécialité devront être mis en œuvre pour faire face à la situation.

L'élévation du niveau des mers est susceptible d'affecter nombre d'îles et de hauts-fonds-découvrants qui risquent de disparaître. Se posera alors le problème des droits sur les zones maritimes qui relevaient de la juridiction desdites îles après leur disparition et la disparition des hauts-fonds aura des conséquences sur la détermination des lignes de base.

Les scientifiques ont révélé que l'élévation du niveau des mers a été plus rapide de 2000 à 2009 que durant les 5000 années précédentes[144]. *Le défi*

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frequent in many regions. The ocean will continue to warm and acidify, and global mean sea level to rise; 8) Many aspects of climate change and associated impacts will continue for centuries; 9) The risks of abrupt or irreversible changes increase as the magnitude of the warming increases; 10) Without additional mitigation efforts … warming by the end of the 21st century will lead to high , to very high risk of severe, wide-spread and irreversible impacts globally and 11) there are multiple mitigation pathways that are likely to limit warming to below 2°C relative to pre-industrial levels. the pathways would require substantial emissions reductions over the next few decades and near zero emissions of CO2 and other long-lived greenhouse gases by the end of the century", IPCC, Climate Change 2014 Synthesis Report, Summary for Policymakers, http://www.ipcc.ch/pdf/assessment. Report/ar5/syr/AR5 SYR FINAL SPM.pdf.

143 Ph. Sands, "Climate change and the Rule of Law: Adjudicating the Future in International Law", Public Lecture, United Kingdom Supreme court, 17 September 2015, 530 pm, pp. 1-21, spec.p.6.

144 L'on estime que l'élévation est due pour 1/3 à la fonte des glaciers continentaux et

immédiat, face à cette situation, est la protection des archipels susceptibles d'être menacés par l'élévation du niveau des mers et les populations installées sur les littoraux. Les différentes formations insulaires de certains archipels sont à un très faible niveau au-dessus du niveau actuel de la mer[145].

La fonte des glaciers continentaux et glaces polaires va rejaillir sur le droit de la mer. Elle va engendrer de nouveaux plateaux continentaux exploitables, de nouvelles routes de navigation et peut être une nouvelle piraterie en raison de l'oisiveté des populations autochtones susceptible d'être créée ainsi que la migration des stocks de poissons vers ces nouveaux espaces libérés des glaces. Cette situation peut créer de nouvelles activités de pêche en même temps qu'une nouvelle industrie d'hydrocarbure ou de gaz c'est-à-dire aussi une possible pollution. *C'est dire que des enjeux multiples vont émerger et vont nécessiter une coopération internationale* très suivie pour soustraire ces zones à une situation conflictuelle géoéconomique et géostratégique.

En attendant, les Etats peuvent recouvrir à la CNUDM pour la protection et la préservation du milieu marin. En effet, "les Etats ont l'obligation de protéger et de préserver le milieu marin"[146]. Ils sont ainsi tenus de prendre les mesures visant à prévenir, réduire et maîtriser la pollution du milieu marin.

En particulier, les Etats doivent prendre toutes les mesures nécessaires pour que les activités relevant de leur juridiction ou de leur contrôle le soient de manière à ne pas causer de préjudice par pollution à d'autres Etats et à leur environnement et pour que la pollution résultant d'incidents ou d'activités relevant de leur juridiction ou de leur contrôle ne s'étende pas au-delà des zones où ils exercent des droits souverains[147].

glaces polaires [la température moyenne hivernale en Antarctique s'est élevée de 6 degrés en 50 ans], pour un autre tiers à la dilatation de l'eau de mer n raison de son réchauffement, même minime, le dernier tiers causal étant encore indéterminé. Voir J.P. Pancracio, Droit de la mer, Précis Dalloz 2010, p. 2.

145 C'est le cas des archipels de Tuvalu (Océan Pacifique), des Maldives (océan indien) et celui des Seychelles (océan indien). Ces archipels sont classés dans la catégorie des Petits Etats Insulaires en développement, dont nombre de leurs îles ne sont qu'à 1 ou 2 mètres d'élévation ; ce qui les expose singulièrement.

146 Article 192 de la CNUDM. Et l'article 194 paragraphe 5 de préciser que "les mesures prises conformément à la présente partie comprennent les mesures nécessaires pour protéger et préserver les écosystèmes rares ou délicats ainsi que l'habitat des espèces et autres organismes marins en régression, menacés ou en voie d'extinction". Ces obligations doivent être examinées en tandem avec celles relatives à la conservation et à la gestion des ressources biologiques de la haute mer telles qu'elles figurent aux articles 117 à la 120 de CNUDM.

147 Article 194 paragraphe 2.

Ce principe d'utilisation non dommageable du territoire[148] apparaît comme une obligation de diligence requise ("due diligence")[149], et donc susceptible de mettre en jeu la responsabilité d'un Etat[150].

Il reste *l'autre défi de taille qu'est l'acidification des océans* dont le niveau de connaissances scientifiques est dans les limbes du balbutiement poussant la Communauté des Etats à prendre note de la situation. Comme le fait remarquer Tommy Koh:

> "The nexus between climate change and the oceans is insufficiently understood. People generally do not know that the oceans serve as the blue lungs of the planet, absorbing Co2 for the atmosphere and returning oxygen to the atmosphere. The oceans also play a positive role in regulating the world's climate system. One impact of global warming on the oceans is that the oceans are getting warmer and more acidic. This will have a deleterious effect on our coral reefs. In view of the symbiotic relationship between land and sea, the world should pay more attention to the health of our oceans"[151].

148 Voir Tafsir Malick NDIAYE " La responsabilité internationale des Etats pour dommages au milieu marin", in B. Vukas, T. SOSIC (eds.), International Law: New concepts, continuing dilemmas, Liber Amicorum Boziclar Bakotic, Martinus Nijhoff Publishers, Leiden / Boston 2010, pp. 265-279, spéc. 267 ; Voir aussi la Convention de Bâle du 22 mars 1989 sur le contrôle des mouvements transfrontières de déchets dangereux, International Legal Materials (ILM), Vol. 28, p. 649 (1989).

149 Voir ITLOS, Affaire N° 17, Responsabilités et obligations des Etats qui patronnent des personnes et des entités dans le cadre d'activités menées dans la zone (Demande d'avis consultatif soumise à la Chambre pour le règlement des différends relatifs aux fonds marins), paragraphes 115-120.

150 Sur la justiciabilité des changements climatiques, voir A. BOYLE, op. cit. [Note 141] pp. 378-380 ; Ph. Sands op. cit. [Note 143], pp. 11-15.

151 Voir, T. Koh, in L. Del Castillo (ed.) Law of the sea, from Grotius to the International Tribunal for the Law of the Sea, Liber Amicorum Judge Hugo Caminos, Brill/Nijhoff, 2015, p.108 ; En effet, dans sa résolution, l'Assemblée Générale des Nations Unies dit, je cite: "§81 Prend note des travaux du Groupe d'experts intergouvernemental sur l'évolution du climat, y compris ses conclusions selon lesquelles, si l'on ne connait pas encore les conséquences de l'acidification des océans sur la biologie marine, cette acidification progressive devrait avoir un impact négatif sur les organismes marins à coquilles et leurs espèces dépendantes et, à cet égard, encourage les Etats à poursuivre d'urgence les travaux de recherche sur l'acidification des océans, en particulier les programmes d'observation et de mesures", A/RES/62/215 du 14 mars 2008, Résolution adoptée par l'Assemblée Générale des Nations Unies le 22 décembre 2007, p. 16, paragraphe 81.

3. Les ressources genetiques marines:

La question est examinée par un Groupe de travail spécial officieux à composition non limitée, institué par l'Assemblée Générale des Nations Unies en 2004, et chargé d'étudier les questions relatives à la conservation et à l'exploitation durable de la biodiversité marine dans les zones situées au-delà de la juridiction nationale "le Groupe de travail spécial"[152].

Ce travail s'effectue dans le cadre du Processus consultatif officieux ouvert à tous sur les océans et le droit de la mer ("le Processus consultatif") qui met l'accent sur les ressources génétiques marines et convient que le Groupe de travail spécial doit examiner cette question[153]. Des discussions ont eu lieu concernant le régime juridique à appliquer aux ressources génétiques marines dans les zones au-delà de la juridiction nationale, conformément à la CNUDM et l'Assemblée Générale a eu à demander aux Etats de poursuivre l'examen de cette question dans le cadre du mandat du Groupe de travail spécial, en vue de faire progresser les travaux[154].

La communauté des Etats est doublement consciente de l'abondance et de la diversité des ressources génétiques marines et de leur valeur du point de vue des avantages que l'on peut en retirer ainsi que des biens et services auxquelles elles peuvent donner lieu, d'une part. De l'autre, elle est consciente également de l'importance de la recherche sur les ressources génétiques marines en vue de mieux comprendre les écosystèmes marins ainsi que leurs utilisations et applications potentielles, et de mieux les gérer[155].

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152 Voir A/61/65 et Corr. 1.

153 Comme demandé par l'Assemblée Générale des Nations Unies au paragraphe 91 de la Résolution 61/222. Le Groupe de Travail a tenu plusieurs réunions de 2006 à 2015.

154 Voir document A/RES/62/215 du 14 mars 2008, p.24, paragraphe 133.

155 Ibid. paragraphes 134 et 135 ; voir aussi J. Wehrli et Th. Cottier "Towards a treaty instrument on marine genetic resources" in M. C. Ribeiro (ed.), 30 years after the signature of the UNCLOS … op. cit. [Note 112] pp. 517-549 où il est dit "The law, and international law, finds itself in the classic constellation of ex post assessment of the implications of rules not per se designed to deal with novel and impending challenges. […] Even the deep sea, which belongs to the least explored areas in the world, supports mammals and fish, including sea stars, sponges, jellyfish and bottom – dwelling fish, worms, molluscs, crustaceans, and a board range of single-celled organisms", p.518; M. Allsopp and al., World Watch Report 174: Oceans in Peril: Protecting Marine Biodiversity, World Watch Institute, Washington DC, September 2007, p. 7.; T. Heidar, "Overview of the BBNJ Process and Main Issues", CIL International Workshop, Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond

Les premières réunions du Groupe de travail officieux ont enregistré très peu de progrès dans les discussions où les dissensions et les divergences étaient tenaces sur la question du régime juridique applicable, à la biodiversité marine, y compris les ressources génétiques marines des zones ne relevant pas de la juridiction nationale.

La nature particulière des ressources génétiques, dont la connaissance doit être approfondie, rend les discussions très ardues. La question qui se pose est celle de leur lieu de rattachement: s'agit-il de ressources appartenant aux fonds marins ou alors aux eaux surjacentes? La réponse à cette interrogation rejaillit sur les règles applicables du droit de la mer. C'est ainsi que deux points de vue opposés et exclusifs se sont affrontés dans le processus.

D'une part, certains Etats ont avancé que le principe fondamental devant s'appliquer en la matière est celui du patrimoine commun de l'humanité tandis que d'autres Etats ont fait valoir le principe de la liberté de la haute mer, de l'autre.

Trois types d'arguments sont avancés pour étayer les différentes positions. D'abord, la question de savoir si le régime applicable à la Zone concerne des ressources autres que les minéraux. L'on sait que la CNUDM entend par ressources toutes les ressources minérales solides, liquides ou gazeuses *in situ* qui, dans la Zone, se trouvent sur les fonds marins ou dans leur sous-sol, y compris les nodules polymétalliques et les ressources, une fois extraites de la Zone, sont dénommées "minéraux"[156]. L'argument est parfois développé sur la base d'une analogie avec le statut des espèces sédentaires sur le plateau continental.

Ensuite, la question de savoir si l'article 143 de la CNUDM peut être invoqué à l'appui de l'idée selon laquelle la prospection des ressources génétiques doit être conduites à des fins exclusivement pacifiques et dans l'intérêt de l'humanité toute entière, conformément à la partie XIII[157]. Et, enfin, la question de savoir si l'Autorité internationale des fonds marins est appelée - ou non- à jouer un rôle quelconque en la matière, puisque l'Autorité est l'organisation par l'intermédiaire de laquelle les Etats Parties

National Jurisdiction: Preparing for the PrepCom, Singapore, 3-4 February 2016 [PowerPoint].

156 CNUDM, article 133, alinéas a) et b).

157 L'on reconnait les mots de l'article 143 paragraphe 1 de la CNUDM relatif à la "Recherche scientifique marine" dans la Zone c'est-à-dire les fonds marins et leur sous-sol au-delà des limites de la juridiction nationale.

organisent et contrôlent les activités menées dans la Zone, notamment aux fins de l'administration des ressources de celle-ci[158].

C'est en 2011 que le Groupe de travail devait recommander l'institution d'un processus par lequel le cadre juridique, relatif à la conservation et l'utilisation durable de la biodiversité marine des zones ne relevant pas de la juridiction nationale, reflète les différents points de vue des Etats. En particulier, "prises conjointement et dans leur ensemble", les questions relatives aux ressources génétiques marines, y compris celles liées au partage des bénéfices, les mesures telles que les outils de gestion par zone, y compris les aires marines protégées, les études d'impact sur l'environnement ainsi que le renforcement des capacités et le transfert de techniques marines.

Cette recommandation sera adoptée par l'Assemblée générale des Nations Unies et est présentée comme le "package deal" des négociations dans l'élaboration d'un instrument international juridiquement contraignant se rapportant à la CNUDM et portant sur la conservation et l'utilisation durable de la biodiversité marine des zones ne relevant pas de la juridiction nationale[159].

Le Groupe de travail a continué à examiner ces questions dans le cadre du nouveau processus institué. Il a tenu deux ateliers en 2013 portant, d'une part, sur les ressources génétiques marines et sur la conservation et l'utilisation durable de la biodiversité marine, de l'autre. L'Assemblée générale était d'avis que le Groupe de travail devait tenir plusieurs réunions pour préparer la décision qu'elle était appelée à prendre à sa 69ème session et pour laquelle elle sollicitait des recommandations relatives aux termes de références[160], sur le champ d'application, les paramètres et les possibilités

158 Article 157 paragraphe 1 de la CNUDM.

159 Voir le document des Nations Unies A/RES/69/292 du 6 juillet 2015 portant la Résolution adoptée par l'Assemblée Générale le 19 Juin 2015 " Elaboration d'un instrument international se rapportant à la CNUDM et portant sur la conservation et l'utilisation durable de la biodiversité marine des zones relevant pas de la juridiction nationale", p. 2, paragraphe 1.

160 114) Voir A/RES/69/292 op. cit.[note 113] où le premier considérant se lit: "l'Assemblée générale, Réaffirmant l'engagement pris par les chefs d'Etat et de gouvernement au paragraphe 162 du document final de la conférence des Nations Unies sur le développement durable tenue à Rio de Janeiro, Brésil du 20 au 22 juin 2012, intitulé "L'avenir que nous voulons", qu'elle a fait sien dans sa résolution 66/288 du 27 juillet 2012, de s'attaquer de toute urgence à la question de la conservation et de l'utilisation durable de la biodiversité marine des zones ne relevant pas de la juridiction

d'élaboration d'un instrument international se rapportant à la Convention.

Après avoir examiné lesdites recommandations[161] du Groupe de travail spécial officieux et se félicitant des progrès accomplis par le groupe de travail en application du mandat à lui confié[162] l'Assemblée générale décida d'élaborer un instrument international juridiquement contraignant le 19 juin 2015.

Elle décide aussi de constituer, avant la date de la tenue d'une conférence intergouvernementale, un comité préparatoire, ouvert à tous les Etats Membres de l'ONU, aux membres des institutions spécialisées et aux parties à la Convention[163]. Le comité est chargé de présenter à l'Assemblée générale des recommandations de fond sur les éléments du projet d'instrument international juridiquement contraignant se rapportant à la Convention. Le comité devra tenir compte des divers rapports des Coprésidents sur les travaux du groupe de travail spécial officieux chargé d'étudier les questions relatives à la conservation et à l'exploitation durable de la biodiversité marine. Le comité a commencé ses travaux en 2016 et tiendra deux sessions de deux semaines chacune. La première session a eu lieu du 28 mars au 8 avril et la seconde se tiendra du 26 aout au 9 septembre. Il en sera de même en 2017 et le comité préparatoire fera rapport à l'Assemblée générale sur l'état d'avancement de ses travaux à la fin 2017. Le comité préparatoire est présidé par l'Ambassadeur Eden Charles de Trinité et Tobago[164].

L'Assemblée générale des Nations Unies a décidé qu'avant la fin de sa soixante-douzième session, elle prendra une décision, en tenant compte du rapport du comité préparatoire, sur l'organisation et la date d'ouverture d'une conférence intergouvernementale, devant se tenir sous les auspices des Nations Unies ; les recommandations du comité préparatoire et l'élaboration d'un *instrument international juridiquement contraignant* se rapportant à la Convention.

nationale, en s'appuyant sur les travaux du Groupe de travail spécial officieux à composition non limitée chargé d'étudier les questions relatives à la conservation et à l'exploitation durable de la biodiversité marine dans les zones situées au-delà des limites de juridiction nationale, et notamment de prendre une décision sur l'élaboration d'un instrument international se rapportant à la Convention des Nations Unies sur le droit de la mer avant la fin de sa soixante-neuvième session".

161 Voir doc. A/69/780, annexe sect. I.

162 Voir les Résolutions 66/321 du 24 décembre 2011 et 67/78 du 11 décembre 2012.

163 Voir A/RES/69/292 op. cit paragraphe 1 a).

164 Ibid. pour l'Organisation et le fonctionnement du comité préparatoire, paragraphe 1, alinéas a) à k).

4. La piraterie

La piraterie[165] remonte aux origines de la navigation maritime. C'est dire qu'elle est pratiquée depuis des millénaires[166]. De ce fait, sa répression est régie par le droit coutumier codifié par la CNUDM[167]. Le lieu de commission

165 Voir Lilian Del Castillo (ed.), Law of the Sea, From Grotius to the International Tribunal for the Law of the Sea, Liber Americorum Judge Hugo Caminos, Brill/Nijhoff, 2015, Part 8, Chap 23, Angela Del Vecchio "The Fight Against Piracy and the Enrica Lexie Case", pp. 397-422; Chap 24: Y. Dinstein "Piracy vs International Armed Conflict" pp. 423-434; Chap 25: E. Gonzalez-Lapeyre " Un nouvel envisagement sur la piraterie maritime" pp. 435-455; Chap 26: James L. Kateka "Combating Piracy and Armed Robbery off the Somali Coast and the Gulf of Guinea", pp. 456-468; Chap 27: H. Tuerk, "Combating Piracy: New Approaches to an Ancient Issue", pp. 469-492.

166 Dans l'Odyssée, Homère, se réfère au fait qu'Ulysse, dans sa jeunesse, avait développé des actes de piraterie et Ménélas reconnait à ses enfants, que la piraterie avait été la source de sa richesse. Récit rapporté par E. Gonzalez-Lapeyre op. cit. [Note 165] p.435. L'auteur explique, qu' "à cette époque-là, naviguer dans la Mer Méditerranée et à travers la Mer Egée, impliquait un énorme danger en vue des éventuelles attaques des vaisseaux pirates. Pendant le Moyen Age, les dénommés Vikings, qui procédaient de l'Europe du Nord, sont devenus un vrai fouet non seulement au transport maritime mais aussitôt aux populations côtières, fondamentalement celles d'Ecosse, d'Angleterre, d'Irlande et de la France, où ils ont occupé la Normandie au début du X^{e} siècle, territoire lequel, précisément, conserve toujours la dénomination de ses conquérants" pp. 435-436 ; Voir aussi du même auteur, "Transport maritime et régime portuaire", RCADI, tome 308, 2005, pp. 263-264 ; J.M. Goodwin, "Universal Jurisdiction and the Pirate: Time for an Old Couple to Part", 39 Vand. J. Transnat' L 973 (2006): 976. D. Konig "Maritime Security: Cooperative Means to Address New Challenges" GYBIL, Vol. 57, 2014, pp. 209-223.

167 CNUDM, articles 100 à 107 et article 110. Aux termes de l'article 101 de la Convention, "On entend par piraterie l'un quelconque des actes suivants:

Tout acte illicite de violence ou de détention ou toute déprédation commis par l'équipage ou des passagers d'un navire ou d'un aéronef privé, agissant à des fins privées, et dirigé:

Contre un autre navire ou aéronef, ou contre des personnes ou des biens à leur bord, en haute mer ;

Contre un autre navire ou aéronef, des personnes ou des biens, dans un lieu ne relevant de la juridiction d'aucun Etat ;

Tout acte de participation volontaire à l'utilisation d'un navire ou d'un aéronef lorsque son auteur a connaissance de faits dont il découle que ce navire ou aéronef est un navire ou aéronef pirate ;

Tout acte ayant pour but d'inciter à commettre les actes définis aux lettres a) et b), ou

de l'acte de piraterie est la haute mer c'est-à-dire toutes les parties de la mer qui ne sont comprises ni dans la ZEE, la mer territoriale où les eaux intérieures d'un Etat, ni dans les eaux archipélagiques d'un Etat archipel[168]. Les dispositions de la Convention relatives à la piraterie s'appliquent cependant à la zone économique exclusive[169]. Dans ces deux zones, l'Etat du pavillon exerce sa juridiction en ce que les navires naviguent sous son pavillon et sont soumis à sa juridiction exclusive en haute mer. Il faut rappeler qu'un navire qui navigue sous les pavillons de plusieurs Etats, dont il fait usage à sa convenance, ne peut se prévaloir, vis-à-vis de tout Etat tiers, d'aucune de ces nationalités et peut être assimilé à un navire sans nationalité[170].

Pour combattre effectivement la piraterie, des exceptions à la règle de la juridiction exclusive de l'Etat du pavillon ont dû être admises. Ainsi, un navire de guerre qui croise en haute mer un navire étranger peut l'arraisonner s'il a de sérieuses raisons de soupçonner que ce navire se livre à la piraterie[171].

De plus, tout Etat peut en haute mer ou en tout autre lieu ne relevant de la juridiction d'aucun Etat, saisir un navire pirate, ou un navire capturé à la suite d'un acte de piraterie et aux mains de pirates et appréhender les personnes et saisir les biens se trouvant à bord. Les tribunaux de l'Etat qui a opéré la saisie peuvent se prononcer sur les peines à infliger, ainsi que sur les mesures à prendre en ce qui concerne le navire ou les biens[172]. Qui plus est, tous les Etats ont l'obligation de coopérer à la répression de la piraterie en haute mer ou en tout autre lieu ne relevant de la juridiction d'aucun Etat[173]. Il s'agit d'une des rares matières où la compétence universelle est reconnue par le droit international coutumier, traduite dans la Convention par le droit de saisie d'un navire et le droit de visite

De nos jours, la piraterie n'est pas seulement développée en haute mer. L'on

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commis dans l'intention de les faciliter".

168 Article 86 de la CNUDM.

169 En vertu de l'article 58 paragraphe 2 qui dispose que: "Les articles 88 à 115, ainsi que les autres règles pertinentes du droit international, s'appliquent à la zone économique exclusive dans la mesure où ils ne sont pas incompatibles avec la présente partie".

170 Article 92, paragraphe 2 de la CNUDM.

171 Article 110, paragraphe 1, a) de la CNUDM.

172 Article 105 de la Convention.

173 Article 100 de la Convention.

peut même dire qu'elle quitte progressivement le large pour se rapprocher des côtes. Aujourd'hui le terrain de prédilection des pirates se trouve dans les endroits suivants: la mer d'Arabie et le golfe d'Aden, la mer de Chine méridionale, le golfe de Guinée, l'Océan indien, le détroit de Malacca, l'Amérique latine et les Caraïbes. Avec la fonte des glaces de l'Arctique qui va engendrer de nouvelles routes de navigation entre l'Europe et l'Asie, il est probable que l'on y observe l'émergence du phénomène de la piraterie parce que les populations autochtones dans cette partie du monde vont perdre leur activité traditionnelle et vont devoir chercher à s'occuper. Le nombre total d'actes de piraterie contre les navires qui ont fait l'objet de rapport à l'OMI depuis que cet organisme a commencé, en 1984, à établir les statistiques en la matière, était de 6727 au 1er septembre 2013[174].

L'évolution de la piraterie[175] est en porte à faux avec le dispositif normatif. Il se trouve de nos jours que les actes de piraterie sont commis dans la mer territoriale voire les eaux intérieures ou même dans les ports. Cette situation engendre un vide juridique qui va nécessiter une interprétation assez singulière des règles existantes pour y faire face.

La résurgence[176] du phénomène a été attribuée à une série de facteurs: pauvreté des populations du littoral lesquelles détournent des cargos d'hydrocarbures ou demandent des rançons pour libérer les bateaux ; absence de gouvernement ou Etat en faillite ; Economie en récession, pêche INN et rejet de déchets toxiques par les navires étrangers ; police des mers défaillante[177].

En Afrique de l'Ouest – par exemple – la pratique de la pêche INN est désastreuse et destructrice pour l'économie maritime et l'écosystème de la région. Les bateaux pirates développent impunément leurs activités étant persuadés de toujours échapper au contrôle étant donné que les Etats n'ont pas les moyens d'asseoir une véritable police des pêches et que les eaux sous leur juridiction ne sont pas surveillées. Les chalutiers attrapent tous les poissons disponibles sans considération d'espèces protégées ou de normes

174 Voir IMO-MSC, "Reports on Acts of Piracy and Armed Roberry against Ships", MSC. 4/ Cire. 199, 13 August 2013, disponible à: http://www.imo.org/Our Work/Security/ Piracy Armed Robbery/Reports/Documents/199-June 2013. pdf.

175 Voir H. Tuerk, op. cit. [Note 165]. 475-476.

176 Ibid.

177 Voir Tafsir Malick Ndiaye, "La pêche INN …" op. cit. [Note 108] p. 233; J. Kateka op. cit. [note 165] 464-466.

de sécurité. Ils procèdent ensuite à des rejets en mer. Ils détruisent les filets des pêches artisans locaux, cassent leurs pirogues. Ils détiennent des filets lourds qui vont draguer l'océan détruisant l'habitat marin mais surtout les nurseries pour les juvéniles ; ce qui empêche les poissons de se reproduire. Cette situation a pour conséquence la fermeture de nombre de villages de pêcheurs mettant au chômage les communautés de pêcheurs.

En traitant avec soins les causes profondes de la piraterie on observe un recul du phénomène. La communauté internationale s'y emploie et depuis 2012 la tendance au recul se confirme. Il faut dire que la coopération internationale pour combattre le phénomène s'est révélée très efficace.

Comme le remarque Doris Konig:

> "A comprehensive approach and cooperation are the only means to deal with maritime security phenomena. The center of coordination, cooperation, and progressive development has been the Contact Group on Piracy off the Coast of Somalia. Focused on interstate cooperation at the outset, it soon became a forum where States, UN entities, international and regional organisations, industry groups, and other stakeholders worked together efficiently and effectively[178]".

L'on a pensé à instituer un mécanisme international destiné à combattre la piraterie, mais le résultat est très peu probant à l'heure qu'il est. Peut-être faut-il *s'employer à traiter le problème de manière pragmatique en s'attaquant aux causes profondes.* Ce, parce que l'idée avancée dans les fora internationaux selon laquelle il faut amender les statuts des juridictions internationales existantes pour traiter de la piraterie paraît très peu réaliste dans la mesure où les amendements des traités internationaux multilatéraux prennent beaucoup de temps et le résultat n'est pas garanti *ab initio*[179]. Le pragmatisme et la mise en œuvre effective du principe de la compétence universelle devraient pouvoir faire l'affaire.

5. Les contributions au titre de l'exploitation du plateau continental etendu

178 D. Konig op. cit. [Note 166] p. 223; H. Tuerk, op. cit. [note 165] p. 477.

179 Voir United Nations Contact Group on Piracy Off the Coast of Somalia: Working Group 2 on Legal Issues, Discussion Paper on Prosecution of Pirates: An International Mechanism? 3 March 2009, pp. 2-3.

Il s'agit des contributions en espèces ou en nature au titre de l'exploitation du plateau continental au-delà de 200 milles marins, objet de l'article 82 de la CNUDM[180], *dont la mise en œuvre recèle de véritables défis à relever* par l'Autorité internationale des fonds marins (AIFM/ISA)[181]. Ce n'est pas un hasard si trente-cinq ans après la signature de la CNUDM son régime n'est toujours pas fixé.

180 L'article 82 de la CNUDM dispose que: "1-L'Etat côtier acquitte des contributions en espèces ou en nature au titre de l'exploitation des ressources non biologiques du plateau continental au-delà de 200 milles marins des lignes de base à partir desquelles est mesurée la largeur de la mer territoriale. 2-Les contributions sont acquittées chaque année pour l'ensemble de la production d'un site d'exploitation donné, après les cinq premières années d'exploitation de ce site. La sixième année, le taux de contribution est de 1p.100 de la valeur ou du volume de la production d'un site d'exploitation. Ce taux augmente ensuite d'un point de pourcentage par an jusqu'à la douzième année, à partir de laquelle il reste 7p.100. La production ne comprend pas les ressources utilisées dans le cadre de l'exploitation. 3-Tout Etat en développement qui est importateur net d'un minéral extrait de son plateau continental est dispensé de ces contributions en ce qui concerne ce minéral. 4-Les contributions s'effectuent par le canal de l'Autorité, qui les répartit entre les Etats Parties selon des critères de partage équitables, compte tenu des intérêts et besoins des Etats en développement, en particulier des Etats en développement les moins avancés ou sans littoral".

181 Voir Chircop Aldo, "Operationalizing art. 82 of UNCLOS: A new role for ISA" Ocean Yearbook, 18 (Chicago) Vol. 18, 2004, pp. 395-412; ISA: International Seabed Authority Handbook 2004, Kingston, Jamaica, ISA 2004, 89 p.; DOALOS, ISA. Marine Mineral Resources: Scientific advances and economic perspectives, New York, IJN 2004, 125 p.; M. Wood, "International Seabed Authority (ISA)", Max Planck Encyclopedia of Public International Law, Oxford University Press, 2012; M. Lodge "Current Legal Development/International Seabed Authority" 2009, 24, IJMCL, 185; LDM Nelson, "The New Deep Seabed Mining Regime" 1995, 10 IJMCL 189, 190-192; D. Leary, "Moving the Marine Genetic Resources Debate Resources Debate Forward: Some Reflections" 2012, 27 IJMCL 435; P. Drankier and al. " Marine Genetic Resources in Areas Beyond National Jurisdiction: Access and Benefit sharing" 2012, 27 IJMCL 375-409; A.G. Oude Elferink and E.J. Molenaar, (eds.), The International Legal Regime of Areas Beyond National Jurisdiction: Current and Future Developments, Martinus Nijhoff, 2010; D'après l'International Seabed Authority Technical Study N°5.

"Submissions made by coastal States until September 2008 with respect to the Continental shelf beyond 200 nm covered more than 23 million square kilometers, while the world's EEZs are estimated at approximately 85 million square kilometers, and the area at around 260 million square kilometers", in ISA Technical Study N°5: Non-living Resources of the Continental shelf beyond 200 Nautical miles: Speculations on the implementation of Art. 82 of the United Nations Convention on the Law of the Sea (2010) 16, at http://www.isa.org.jm/files/docuyments/EN/Pubs/Techstudy 5. pdf. du 14 mai 2014.

En juillet 2013, les membres de l'Assemblée de l'Autorité ont consacré une partie des discussions relatives au rapport du Secrétaire général[182] aux conclusions de l'atelier international organisé par l'Autorité sur l'examen de l'application de l'article 82 de la Convention des Nations Unies sur le droit de la mer[183].

Cet atelier international avait pour objet d'établir des avant-projets, pour examen par les Etats dont le plateau continental s'étend au-delà des 200 milles marins et par les organes compétents de l'Autorité internationale des fonds marins.

Le Groupe de travail[184] a examiné quatre thèmes majeurs: la relation entre l'Autorité et les Etats ayant un plateau continental étendu au titre de l'article 82 ; la terminologie de l'Article 82 ; les fonctions et tâches qui découlent de l'article et les options possibles pour faciliter la mise en œuvre.

D'abord, l'article 82 établit une relation à deux niveaux. D'une part, des obligations réciproques entre Etats-Parties créées en vertu de la Convention et qui procèdent du lien intime unissant les articles 76 et 82. L'observation des dispositions de l'article 82 apparait d'abord et avant tout comme une attente des Etats-Parties, c'est-à-dire que l'obligation d'acquitter des contributions au titre de l'exploitation est une dette de l'Etat au plateau continental étendu à l'égard des autres Etats-Parties. D'autre part, la mise en œuvre l'article 82 met en rapport l'Etat au plateau continental étendu avec l'Autorité internationale des fonds marins. C'est pourquoi il est dit que "les contributions s'effectuent par le canal de l'Autorité[185]".

Autrement dit, la Convention requiert une relation de coopération entre l'Etat et l'Autorité régie par la bonne foi. Le rôle de l'Autorité dans cette relation doit être interprété à la lumière du mandat que lui assigne la Convention. En revanche, celle-ci est muette sur la périodicité de la relation

182 Voir Communiqué de Presse de l'Autorité Internationale des fonds marins, dix-neuvième session, Kingston, du 15-26 juillet 2013, FM/19/2.

183 Voir "Implementation of Article 82 of the United Nations Convention on the Law of the Sea: Report of an International Workshop convened by the International Seabed Authority in collaboration with the China Institute for Marine Affairs in Beijing, The People's Republic of China, 26-30 November 2012, ISA Technical Study: N°12".

184 C'est l'objet de l'Annexe 1 du Rapport précité: Report of Working group A on implementation Guidelines and Model Article 82 Agreement Presented by Professor Chircop as facilitator, and Dr. Galo Carrera, Consulate of Mexico in Nova Scotia and New Brunswick, Canada, as Rapporteur.

185 Article 82 paragraphe 4 de la CNUDM.

et sur la structure, l'organe ou le processus devant la régir. L'Autorité est censée recevoir les contributions qu'elle administre sous la forme de dépôts jusqu'à leur répartition entre les bénéficiaires conformément à la Convention, bien qu'elle ne bénéficie pas de pouvoirs expressément conférés par l'article 82 et relatifs au contrôle et à la conformité à la Convention.

Il apparait que la transparence – principe de bonne gouvernance – soit essentielle dans la mise en œuvre des dispositions de l'article 82. Pour ce faire, des procédures administratives doivent être établies[186] pour traiter les problèmes et combler les lacunes de l'article 82 et, en particulier, les notifications, aux Etats dotés de plateaux continentaux étendus, relatives au début, à la suspension et à la fin de la production. Le Groupe de travail a exploré les avantages et inconvénients d'une approche standardisée comparée à une approche cas par cas par souci de cohérence, de prévisibilité et d'efficience. Il s'avère que la diversité des ressources nécessite une certaine flexibilité dans les démarches. La question du flux d'informations entre l'Etat et l'Autorité a été examinée de manière approfondie. Il ressort de l'examen qu'un format de présentation des informations doit être établi pour accompagner les contributions. Le Groupe de travail a aussi étudié la question de la contribution en nature dont l'objet est de garantir l'accès à la ressource aux Etats-Parties bénéficiaires[187].

Ensuite, deuxième thème majeur, le Groupe de travail s'est penché sur la question de la terminologie. Il apparait que l'article 82 est dépourvu de définition en ce qui concerne les termes-clefs suivants: "ressources", "toute la production", "valeur", "volume", "site", "paiements", "contribution en nature", "chaque année".

Il semble que ces différents mots ont été utilisés pour aboutir au compromis nécessaire et c'est pourquoi ils ne sont guère des termes consacrés. Et le groupe de travail s'est employé à les définir dans leur contexte pour faciliter la compréhension commune. Il dit:

> "Therefore, reasonably consistent understanding among States Parties to facilitate implementation and avoid potential disputes regarding interpretation is an important consideration. The development of a guide to assist OCS States with the implementation of Article 82 would need to address this matter" [188].

186 Voir en ce sens, le Working paper de l'atelier précité "Development of Guidelines for the implementation of Article 82".

187 Voir rapport du Groupe de travail A précité, [note 138] paragraphes 2-9.

188 Ibid. paragraphe 10.

Ainsi, les huit termes sont définis pour situer le contexte et l'esprit dans lesquels ils ont été choisis[189], pour asseoir un entendement commun.

Après, troisième thème majeur, les fonctions et les tâches ont été examinées. La Convention ne les définit pas. Et le Groupe de travail a cherché à les établir pour les Etats comme pour l'Autorité. Pour les Etats dotés de plateaux continentaux étendus, les questions suivantes ont été retenues: un site particulier éligible au titre de l'article 82; la date de commencement de la production; la suspension de la période de grâce; la suspension de la production qui affecte les contributions, l'annonce des paiements à venir; celle des contributions en nature; l'annonce du changement d'option ; et la date de la fin de la production.

En ce qui concerne les notifications de l'Autorité aux Etats, les questions suivantes ont été envisagées: l'Accusé de réception de la notification formelle par l'Etat; les instructions bancaires relatives aux paiements; la réception des paiements; celle des contributions en nature; et le relevé bancaire annuel certifiant les paiements et contributions reçus. De plus, le rapport annuel du Secrétaire général de l'Autorité devra informer les Etats membres sur l'état des paiements et contributions reçus ainsi que les problèmes connexes sur la base des informations reçues des Etats dotés de plateaux continentaux étendus[190].

Enfin, le dernier thème a trait à la structure – formelle ou informelle – et au processus nécessaires pour faciliter la relation, administrative entre les Etats et l'Autorité. Le Groupe de travail, après avoir écarté les méthodes relatives à la partie XI de la CNUDM et à l'accord sur les stocks chevauchants, a opté pour un "Memorandum of Understanding between OCS States and the ISA, but not discussed in depth"[191].

Les participants à l'atelier international ont noté que de nombreux sujets n'avaient pu être abordés et que des études complémentaires seraient nécessaires. Ils ont souligné qu'il était important de continuer d'examiner, par l'entremise des organes compétents de l'Autorité, les moyens d'établir un système permettant l'application pragmatique et fonctionnelle de l'article 82[192]. Il faut relever que la série des études techniques de l'Autorité

189 Ibid. paragraphes 11-17.

190 Ibid. paragraphes 19-22.

191 Ibid. paragraphe 23.

192 Communiqué de Presse du 15 juillet 2013 précité. [note 136].

internationale des fonds marins se révèle être une mine de renseignements de premier plan[193].

6. La fonction consultative du Tribunal International du Droit de la Mer

Aux termes de la CNUDM[194] et du statut du Tribunal, la fonction consultative est exercée par la Chambre pour le règlement des différends relatifs aux fonds marins. Mais le Tribunal en formation plénière peut donner des avis fondés sur d'autres accords internationaux[195]. Les deux instruments précités n'envisagent guère la compétence consultative du Tribunal en formation plénière. On n'en trouve pas trace non plus dans le projet de la Commission préparatoire. Il s'agit d'une création d'une création du Tribunal à l'occasion de l'élaboration de son règlement de procédure en 1996 ; l'on a alors évoqué la possibilité pour le Tribunal plénier de donner des avis consultatifs. C'est pourquoi, la clause attributive de compétence se trouve dans le Réglement[196]. Elle fait l'objet de l'article 138 qui prévoit que le Tribunal peut donner un avis consultatif sur une question juridique dans la mesure

193 Voir ISA TECHNICAL STUDY SERIES: Technical Study (TS) – TS N°1: "Global non-living Resources on the Extended continental Shelf: Prospects at the year 2000"; TS N°2:" Polymetallic Massive Sulphides and Cobalt-Rich Ferromanganese crusts: Status and Prospects"; TS N°3: "Biodiversity, species Ranges and Gene Flow in the Abyssal Pacific Nodule Province: Predicting and Managing the impacts of Deep Seabed Mining"; TS N°4: "Issues associated with the implementation of Article 82 of the UNCLOS; TS N°5: "Non-living resources of the continental Shelf beyond 200 nautical miles: Speculations on the implementation of Article 82 of the UNCLOS"; TS N°6: "A Geological Model of Polymetallic Nodule Deposits in the Clarion-Clipperton Fracture zone"; TS N°7: " Marine Benthic Nematode Molecular Protocol Handbook (Nematode Barcoding)"; TS N°8: "Fauna and cobalt-Rich Ferromanganese Crust Seamounts"; TS N°9: Environmental Management of Deep-Sea Chemosynthetic Ecosystems: Justification of and considerations for a spatially-based Approach"; TS N°10: "Environmental Management Needs for Exploration and Exploitation of Deep Sea Minerals"; TS N°11: "Towards the Development of a regulatory Framework for Polymetallic Nodules Exploitation in the Area"; TS N°12: "Implementation Workshop convened by the International Seabed Authority, 26-30 November 2012."

194 Voir article 159 paragraphe 10 et 191 de la CNUDM.

195 Voir article 138 du Règlement du Tribunal ; Voir aussi, Tafsir Malick Ndiaye, "Les avis consultatifs du Tribunal international du droit de la mer", in L. del Castillo (ed.), Law of the Sea, From Grotius to the International Tribunal for the Law of the Sea, op. cit. [Note 165] pp. 622-653.

196 Ibid.

où un accord international se rapportant aux buts de la Convention prévoit expressément qu'une demande d'un tel avis est soumise au Tribunal.

Normalement, la procédure consultative est ouverte aux organisations internationales et à elles seules. Le mécanisme ne comporte ni réclamation, ni parties. C'est pourquoi la voie de la requête est le seul mode de saisine de la Chambre et du Tribunal par les organes habilités à demander des avis dans des matières spécifiées. L'avis consultatif est une consultation juridique dépourvue de force obligatoire et qui, comme énoncé individuel, n'a pas de force légale.

En revanche, il est possible qu'un organe chargé de fonctions juridictionnelles comme le Tribunal se voie prié, parce que son statut ne l'interdit pas, de donner un avis de droit. Il arrive parfois qu'un tribunal arbitral soit amené à rendre un avis consultatif [197].

Pour le tribunal plénier, la voie consultative est ouverte lorsqu'un accord international[198] se rapportant aux buts de la Convention le prévoit. Ces buts de la Convention sont prolifiques. On peut citer: les ressources biologiques de la mer ; la conservation et la gestion desdites ressources ; l'environnement et les écosystèmes marins, la recherche scientifique marine, la pollution, la navigation marine, la criminalité en mer et la sécurité maritime; les créances maritimes et responsabilités; les transports maritimes.

Dans ces matières, il y a de nombreux problèmes qui peuvent utilement faire l'objet de demande d'avis consultatifs comme le révèlent les différents ateliers du Tribunal[199]. Une question récurrente a trait au rôle des organismes régionaux de gestion des pêches et à la pêche illicite.

Comme le fait remarquer l'Ambassadeur Tommy Koh:

> "FAO has repeatedly called the world's attention to the crisis in fisheries. The crisis is being caused by over-fishing by illegal, unreported and unregulated fishing, by the ineffectiveness of the regional fishery management organizations and by the use of destructive and unsustainable methods of fishing, such as, bottom trawling and dredge fishing. Urgent action is needed to tackle these problems. The world can learn from the successful experiences of

197 Voir Tafsir M. Ndiaye, "Les avis consultatifs …" op. cit. [Note 195] p.645.

198 Il s'agit d'un traité au sens de l'article 1, al. a) de la Convention de Vienne sur le droit des traités du 23 mai 1969.

199 Voir, Tafsir Malick Ndiaye "Les avis consultatifs…" op. cit.[Note 195] p.645.

> Iceland and New Zealand in the management of their fisheries. The IMO should consider requiring all commercial fishing boats to be licensed and to carry transponders. We should also consider eco-labelling for fish. Regional fishery management organizations should be established in all regions, and they should be allowed to make their decisions by majority votes rather than by consensus. Certain destructive methods of fishing should be banned[200]".

Ce n'est pas un hasard si la première demande d'avis consultatif soumise au Tribunal plénier l'a été par le fait d'un ORGP (RFMO), en l'occurrence la Commission Sous-Régionale des Pêches (CSRP)[201].

L'article 138 du Règlement énonce un certain nombre de conditions à remplir pour que la demande d'avis consultatif sur une question juridique soit recevable. D'abord, il faut un accord international. Ensuite, l'accord en question doit se rapporter aux buts de la Convention. Après, il faut que l'accord international prévoit expressément qu'une demande d'un tel avis est soumise au Tribunal et enfin, l'avis consultatif doit porter sur une question juridique. La question juridique préalable qui a longtemps occupé le Tribunal dans cette affaire est celle de sa compétence pour rendre un avis consultatif[202], puisqu'il s'agissait de la première affaire où il devait le faire en formation plénière. Le Tribunal commencera par rappeler les articles 16 et 21 du statut et l'article 138 du règlement, avant de procéder à l'examen des différents arguments avancés par les participants à la procédure[203].

Les principaux arguments avancés contre la compétence consultative du Tribunal sont que la Convention ne fait aucune référence explicite ou implicite à des avis consultatifs du Tribunal plénier et qui si le Tribunal venait à exercer une compétence consultative, il agirait ***ultra vires*** au regard de la Convention.

D'autres participants se sont prononcés en faveur de la compétence consultative du Tribunal. Ils ont avancé que l'article 21 du statut constitue

200 Voir T. Koh, "UNCLOS at 30: Some Reflections" in L. del Castillo (ed.) Law of the Sea, op. cit. [Note 195] p.108.

201 Demande soumise le 28 mars 2013; Voir ITLOS/Press 190 du 28 mars 2013. La CSRP, dont le siège est à Dakar (Sénégal) est composée de sept Etats-membres: Cap-Vert, Gambie, Guinée, Guinée-Bissau, Mauritanie, Sénégal et Sierra Leone.

202 Voir l'avis du 2 avril 2015 du TIDM en l'affaire N° 21, paragraphe 37-79.

203 Voir les paragraphes 40 à 47 pour les arguments avancés contre la compétence consultative du Tribunal plénier.

en soi une base juridique suffisante pour fonder la compétence du Tribunal plénier pour donner suite à une demande d'avis consultatif, si celle-ci est expressément prévue dans un accord international pertinent et qu'il n' y a aucune raison de supposer que la formule "toutes les fois que" ("all matters" en anglais) ne couvre pas la demande d'avis consultatif. Ils ont ajouté que l'argument selon lequel la formule "toutes les fois que" renvoie à "tous les différends" ainsi que celui selon lequel la compétence du Tribunal est limitée par l'article 288 paragraphe 2 de la Convention, ne peuvent être retenus. Ils ont fait observer que cet article est complété par le statut, notamment son article 21[204].

Après avoir examiné les différents types d'arguments, le Tribunal précise que ce n'est pas l'expression "toutes les fois que cela est expressément prévu dans tout autre accord conférant compétence au tribunal" qui confère en soi une compétence consultative au Tribunal. C'est plutôt l'expression "autre accord" à l'article 21 du statut qui lui confère une telle compétence. Lorsqu'un "autre accord" attribue une compétence consultative au Tribunal, celui-ci peut exercer cette compétence "toutes les fois" que cela est expressément prévu dans cet "autre accord". L'article 21 et l' "autre accord" conférant compétence au Tribunal sont liés l'un à l'autre et constituent le fondement juridique de la compétence consultative du Tribunal[205].

Cette décision établit un précédent qui peut se révéler du plus grand bénéfice pour les Etats regroupés au sein des Organismes Régionaux de Gestion des Pêches (ORGP). Ce d'autant plus que dans son avis, le Tribunal indique que l'Etat du pavillon a l'obligation de prendre les mesures nécessaires, y compris les mesures d'exécution, pour veiller à ce que les navires battant son pavillon se conforment aux lois et règlements des Etats-membres de la CSRP[206].

De plus, le Tribunal a décidé que la responsabilité de l'Etat du pavillon résulte d'un manquement à son obligation de "diligence due" concernant les activités de pêche INN menées par les navires battant son pavillon dans les ZEE des Etats membres de la CSRP[207].

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204 Voir les paragraphes 48 à 57 pour les arguments avancés en faveur de la compétence consultative du Tribunal.

205 Voir le paragraphe 58 de l'avis consultatif du 2 avril 2015.

206 Réponse à la première question de la CSRP.

207 Voir réponse à la seconde question de la CSRP.

On a par là *des exemples d'avancées significatives qui peuvent protéger singulièrement* les Etats-membres des Organismes régionaux de gestion de pêche, lesquels peuvent désormais recourir au Tribunal pour se plaindre de la violation des mesures prises dans le cadre de la gestion et de la conservation des ressources biologiques qu'ils administrent.

Le nouveau défi, qui risque de mettre en danger – si on n'y prend garde – *la CNUDM elle-même, est la violation systématique de nombre de ses dispositions* qui peut non seulement affecter l'ordre juridique des mers mais surtout la paix dans les relations internationales[208]. Il faudra penser à mettre en œuvre la partie XV pendant qu'il est encore temps. La répugnance des Etats à l'égard du règlement juridictionnel est inhérente à la structure même de la société internationale travaillée par des processus politiques et où les intérêts individualistes des Etats sont omniprésents. Les Etats doivent cependant agir en conformité avec la CNUDM qu'ils ont mis une décennie à négocier et qu'ils célèbrent à longueur d'années.

Dakar le 15 Juin 2016

208 Voir Robin Churchill, "The Persisting Problem of Non-compliance with the Law of the sea Convention: Disorder in the Oceans", the International Journal of Marine and Coastal Law 27 (2012) 813-820 ; Idem "The Impact of State Practice on the Jurisdictional Framework Contained in the LOS Convention" in AG Oude Elferink (ed.) Stability and Change in the Law of the Sea: The Role of the LOS Convention, Martinus Nijhoff, Leiden 2005, p.91; J.A. Roach and R.W. Smith, Excessive Maritime Claims, 3rd edition, Marinus Nijhoff, Leiden, 2012; Comme le rappelle l'ambassadeur Tommy KOH: "I wish to express a serious concern about the tendency by some coastal states to expand their jurisdiction and their rights in violation of the Convention. Some States have drawn straight baselines when they are not so entitled. Other states have enacted laws and regulations governing activities in the Exclusive Economic Zones even though they have no jurisdiction over such activities under the Convention. Some states have acted in contravention of the regime of transit passage. States have shown very little integrity and fidelity to law when it comes to deciding whether a feature is a rock or an island. I think states should be less reluctant to protest against such actions by other states and be more willing to refer such disputes to dispute settlement" in L. del Castillo (ed.) Law of the Sea …., op. cit. [Note 195] p. 108.

2

LA PRATIQUE DU BILINGUISME DANS LE CADRE DU TRIBUNAL INTERNATIONAL DU DROIT DE LA MER

Jean-Pierre Cot

Le juge Victor Marotta Rangel a longtemps présidé et animé le groupe de rédaction francophone au sein du Tribunal international du droit de la mer. L'hommage rendu aujourd'hui à ce juriste éminent me permet de souligner sa contribution en ce domaine.

L'article 43 du Règlement du Tribunal déclare:

> « Les langues officielles du Tribunal sont le français et l'anglais.»

La disposition reprend les termes de l'article 39.1 du Statut de la Cour internationale de justice, qui dispose:

> « 1. Les langues officielles de la Cour sont le français et l'anglais.»

L'obligation du bilinguisme s'impose dans la pratique quotidienne du Tribunal. Elle pèse lourdement sur la petite institution qu'est le Tribunal. Elle entraine des frais de traduction et d'interprétation importants. Mais

les problèmes ne s'arrêtent pas là. Le bilinguisme se vit au quotidien dans la pratique judiciaire et dans un environnement très anglophone.

On compte en effet à ce jours cinq juges francophones sur les vingt-et-un juges du Tribunal. On notera cependant que la plupart des juges n'ont pour langue maternelle ni le français ni l'anglais.

La plupart des juristes du greffe sont anglophones. Heureusement, le Greffier, Philippe Gautier, assure la pratique d'un bilinguisme effectif au sein du Greffe.

L'obligation du bilinguisme au sein des tribunaux internationaux remonte à la création de la Cour permanente de Justice internationale[209]. Le problème est évoqué lors de la conférence de La Haye de 1907. L'article 61 de la Convention de 1907 précise que, si les parties n'ont pas déterminé les langues à employer, il en est décidé par le Tribunal arbitral.

En 1920, le comité consultatif des juristes propose que le français soit la langue de la Cour, à moins qu'il n'en soit décidé autrement à la demande des parties. Mais la proposition se heurte à l'opposition du Royaume-Uni lors des débats au Conseil de la Société des Nations. Le délégué britannique rappelle l'existence des deux grandes traditions inspiratrice du droit des gens: le droit romain et le droit coutumier, exprimées par l'usage du français et de l'anglais. Le délégué belge souligne les inconvénients du bilinguisme en citant l'exemple de son propre pays. Le délégué du Brésil estime que les parties doivent pouvoir plaider dans la langue de leur choix, les arrêts devant être rendus en français.

Lors de la séance du 28 octobre 1920, le Conseil se range à l'avis du délégué britannique et consacre le bilinguisme. Mais il réserve la possibilité pour les parties de choisir une seule des langues pour la procédure judiciaire. La Cour peut autoriser l'utilisation d'une autre langue à la demande des parties. Le Conseil s'inquiète cependant des divergences possibles entre les deux textes. La Cour doit donc désigner pour chaque arrêt le texte qui fait foi.

Lors du débat à l'Assemblée de la Société des Nations, l'Espagne demande la possibilité pour les parties de demander l'emploi d'une langue autre que le français ou l'anglais. La proposition est rejetée au motif qu'on ne saurait demander aux juges de maîtriser plus de deux langues. Certains délégués proposent l'utilisation de l'esperanto ; la proposition n'est pas retenue.

209 Cf. G. Guillaume. De l'emploi des langues à la Cour internationale de justice. Droit du pouvoir, pouvoir du droit. Mélanges offerts à Jean Salmon, Bruxelles 2007, pp. 1277-1292.

Le texte adopté en 1920 est légèrement modifié en 1936, s'agissant de l'utilisation de langues autres que le français ou l'anglais. Il est repris sans changement en 1945 dans le Statut de la Cour internationale de justice.

L'obligation du bilinguisme représente une lourde charge pour une petite institution comme le Tribunal international du droit de la mer. Les frais de traduction et d'interprétation grèvent sensiblement le budget.

Le bilinguisme s'impose tant pour la procédure écrite que pour la procédure orale.

L'article 64 du Règlement dispose:

> «1. Les parties présentent les pièces de la procédure en tout ou en partie dans l'une des deux langues officielles ou les deux.
>
> 2. Une partie peut, pour les pièces de procédure qu'elle présente, employer une langue autre qu'une des langues officielles. Dans ce cas, une traduction dans une des langues officielles, certifiée exacte par elle, doit être jointe à l'original de la pièce.
>
> 3. Si un document annexé à une pièce de procédure n'est pas rédigée dans une des langues officielles, une traduction dans une de ces langues, certifiée exactes par la partie qui la fournit, doit l'accompagner. La traduction peut être limitée à une partie ou à des extraits d'une annexe mais, dans ce cas, elle est accompagnée d'une note explicative indiquant les passages traduits. Le Tribunal peut toutefois demander la traduction d'autres passages ou la traduction intégrale.
>
> 4. Lorsque les parties choisissent une langue autre qu'une des langues officielles et que cette langue est une des langues officielles de l'Organisation des Nations Unies, la décision du Tribunal sera traduit, à la demande d'une parties, en cette langue officielle de l'Organisation des Nations Unies sans frais pour les parties.»

Il en résulte une charge qui ne se limite pas à une inscription budgétaire. L'obligation pèse sur l'ensemble des travaux du Tribunal. Elle comprend l'interprétation et la traduction.

L'interprétation est assurée par des interprètes professionnels. Elle est assurée pour les séances plénières du Tribunal comme pour ses délibérations. Le problème se pose pour les groupes de travail. Compte tenu des coûts, il

n'est pas toujours possible d'assurer la présence d'interprètes. On peut avoir recours à des formules intermédiaires, telles la présence d'un interprète auprès du président du groupe du travail qui chuchote l'interprétation.

La traduction des documents est parfois assurée dans le cadre du Tribunal par des traducteurs professionnels. Mais elle est pour l'essentiel sous-traitée à l'extérieur du Tribunal, les traductions étant ensuite vérifiées par le Greffe.

Les délais de traduction peuvent poser un problème lors des délibérations du Tribunal. Le délibéré se déroule dans un temps bref, de quelques jours en général. Le délai est difficilement compatible avec la durée d'une traduction extérieure. La traduction des amendements au texte risque d'arriver après la décision. Aussi certains juges prennent la précaution de rédiger leurs amendements dans les deux langues. Mais ce n'est pas toujours possible.

Aux termes de l'article 125 m) du Règlement, l'arrêt comprend «l'indication du texte faisant foi». Le texte reprend la formule du Statut de la Cour internationale de justice. Mais la pratique du Tribunal a curieusement évolué. Alors que les premiers arrêts indiquaient en effet le texte faisant foi[210], le Tribunal précise aujourd'hui «les deux textes faisant également foi».[211]

La formule peut apparaître contestable. Elle correspond pourtant plus exactement au déroulement du délibéré et permet une interprétation plus précise de l'arrêt que le choix d'une version faisant foi. Dès lors qu'une difficulté d'interprétation du texte se présente et si les parties ne conviennent pas du choix de l'interprétation exacte, le recours en interprétation met en oeuvre toutes les techniques d'interprétation pour faire ressortir l'intention commune des parties. La désignation d'une version faisant foi n'est pas déterminante pour dégager cette intention commune.

Au demeurant, le terme de «traduction» n'est pas exact, puisque les deux versions sont authentiques et ont même valeur lorsqu'il s'agit de régler une question d'interprétation.

Au Tribunal, le texte initial est généralement rédigé en langue anglaise, compte tenu de la majorité linguistique des juges. La traduction fidèle, mot à mot, de la première version est, en règle générale, indigeste. De plus, effectuée à l'extérieur du Tribunal par des traducteurs qui ne sont pas des spécialistes du droit de la mer, la traduction doit être revue et corrigée par

210 cf. Affaire du navire «Saiga», arrêt du 4 décembre 1997, par. 86.

211 cf. par ex. affaire n° 24. L'incident de l' «L' Enrica Lexie» (Italie c. Inde), Ordonnance du 24 août 2015, par. 141.

le Greffe. Même ainsi mis en forme, le texte reste maladroit, imprécis. Il convient donc, pour répondre aux impératifs de clarté, de lisibilité et d'élégance d'expression, de s'en émanciper quelque peu tout en maintenant l'exacte concordance du sens des deux versions. Il n'est pas question de privilégier l'expression dans une des deux langues, puisque les deux textes sont authentiques, l'un et l'autre.

La parfaite maîtrise du bilinguisme par les juges et le Greffe permet d'éviter des erreurs d'interprétation qui peuvent être fâcheuses. Un exemple a contrario en est offert par la sentence rendue dans l'affaire des Îles Chagos. Le Tribunal arbitral et le Greffe de la Cour permanente d'arbitrage étaient exclusivement anglophones, la langue de la procédure étant l'anglais. Une difficulté de traduction se posa et fut débattue par les Parties. Appelé à sa prononcer dans la sentence, le Tribunal arbitral commit une erreur évidente, bien que sans conséquence pour la décision.[212]

La contrainte du bilinguisme est évidente. Mais il s'agit en même temps d'une richesse. Le bilinguisme oblige à la confrontation des diverses traductions juridiques dominantes du droit international et, par delà les traductions, à l'approfondissement des concepts juridiques sous-jacents. Il permet d'écarter le danger de la pensée unique.

212 Le tribunal arbitral, comparant les texte français et anglais, fait une erreur d'analyse sur l'utilisation du verbe «exerce». Il ignore que l'indicatif vaut impératif dans la langue française.

3

THE EXHAUSTION OF LOCAL REMEDIES AND THE NATIONALITY OF CLAIMS IN THE JURISPRUDENCE OF INTERNATIONAL TRIBUNAL FOR THE LAW OF THE SEA

Jose Luiz Jesus

It is with great pleasure that I participate with this small note on the jurisprudence of the International Tribunal for the Law of the Sea (The Tribunal)[213], concerning the nationality of claims and the exhaustion of local remedies, in the Liber Amicorum dedicated to Professor and judge Marotta Rangel[214], as a small token of our friendship and as a recognition for his much appreciated contribution to the law of the sea. Judge Marotta Rangel and I crossed ways on several occasions during his long and distinguished professional career, a career dedicated to the law of the sea. We first met during the sessions of the last four years of negotiations in the III United

213 Established by the UN I Law of the Sea Convention, the Tribunal's site is in Hamburg Germany.

214 Elected Judge since 1986, in the beginning of the functioning of the International Tribunal for the Law of the Sea. He served until 2015, when he resigned.

Nations Conference on the Law of the Sea that would adopt, in 1982, after several years of hard but constructive and productive negotiations, the United Nations Convention on the Law of the Sea (UNCLOS), considered the Constitution of the Oceans. Both of us were lucky to have been witnesses and participants in this famous and historic UN Conference. As a young lawyer and diplomat representing my country, Cabo Verde, I learned a lot with Professor Marotta Rangel and from his colleagues in the Brazilian delegation to the Conference.

During the Conference, I came to work with Professor Marotta Rangel a bit closer when the Portuguese speaking countries, including Brazil and Cabo Verde, decided to embark upon the translation into Portuguese of the then Draft Law of the Sea Convention, so as to have a sole Portuguese version of the Convention that could be used by all the Portuguese speaking countries, a project that was achieved after 4 years of hard work, involving delegates of these countries participating in the III UN Conference on the Law of the Sea[215].

Then, I met Professor Marotta Rangel all along the life of the Preparatory Commission for the International Tribunal for the Law of the Sea and for the International Seabed Authority (Preparatory Commission), a Conference that met twice a year, whose meetings would stretch for 11 years and whose mandate was to negotiate rules, regulations and procedures for the early entry into operation of the Tribunal and the International Seabed Authority, two of the three institutions established by UNCLOS, as well as to implement the seabed mining pioneer system. As Chairman of this Preparatory Commission for the last 9 years of its existence, I was blessed to count on the friendship and cooperation of Professor Marotta Rangel and his colleagues in the Brazilian delegation. This was a period during which I got to know him better, as a person and as a professional, as there were several occasions during which we socialized and had close cooperation and conversations.

Finally, I met and worked again with Professor Marotta Rangel, when in 1999 I was elected a member of the Tribunal. Judge Marotta Rangel was already there as a member of the Tribunal, having been elected 3 years before me. As Judges, we worked very close to each other, especially during the deliberations relating to cases brought before the Tribunal. We served together in this important adjudicative body for more than 16 years until he decided to renounce his position in 2015. These 16 years of sharing as

215 See Portuguese Translation of the UNCLOS.

judges, of professional cooperation and socializing created a strong bond between us, as friends and colleagues in the profession and as fellow judges from sisterly countries.

All in all, it is almost a period of 40 years of association with Professor and Judge Marotta Rangel, a period that started with our common participation in the Law of the Sea Conference in the 1970's, continued all along the 11 years of the work of the Preparatory Commission and finally continued for another 16 years of working together in the Tribunal, as judges. I shall cherish forever my friendship with Judge Marotta Rangel. His support and well-wishing attitude towards me as a colleague will always be remembered. I shall always keep a pleasant image of him, collected along these 40 years of work association with him, as a good and reliable friend, as a very fine person and a gentleman, but also as a dedicated professional that contributed much to the good name of his country in international fora.

I. Introduction

The issue of the exhaustion of local remedies is usually presented by the respondent party as a defence and used as an argument for denying or questioning the admissibility of the request or claim presented by the other party[216].

It is well known that, under international law, a State may exercise the privilege of diplomatic protection, by instituting a lawsuit against another State, to protect the rights of its natural and juridical persons, even when the rights of the State as such have not been violated[217] [218] "and to obtain

216 It has been a recurrent issue raised in several cases before the ICJ and the International Tribunal for the Law of the Sea. Sea ICJ cases.

217 As state in commentary 5 of the ILC draft articles on Diplomatic Protection "Draft article 1 is formulated in such a way as to leave open the question whether the State exercising diplomatic protection does so in its own right or that of its national - or both".

218 This notwithstanding the fiction in accordance with which that an injury to a citizen of a State is an injury to that State. See commentary 3 to article 1 of the ILC draft articles on Diplomatic Protection where it is stated that this fiction can be rooted in the pronouncement of the Swiss jurist Emmerich de Vattel in 1758 that "whoever ill-treats a citizen indirectly injures the State, which must protect that citizen," and " in a dictum of the Permanent Court of International Justice in 1924 in the Mavrommatis Palestine Concessions case that "by taking up the case of one of its subjects and by resorting to diplomatic action or international judicial proceedings on his behalf, a State is in reality

reparation for injury caused to such persons.[219] [220]. "Diplomatic protection […] is designed to remedy an internationally wrongful act that has been committed"[221].

In doing so, however, the applicant State, the State instituting proceedings for the protection of the rights of its citizens and other persons[222] [223], has to make sure that the offended citizens or other qualifying persons[224] have exhausted all possibilities of obtaining redress of their rights they claim to have been violated by a State[225] in the court system or before the proper authorities of that State[226]. This means that the local remedies have to be exhausted, befor an international court or tribunal to entertain a case instituted by a State, based on diplomatic protection.

Considered a principle of international law, "[…] supported by judicial decisions, State practice, treaties and the writings of jurists"[227] the exhaustion of local remedies is, under customary international law, "a prerequisite for the exercise of diplomatic protection"[228]. This principle of international law is reflected on article 295 of the UNCLOS which states that "[A]ny dispute between States Parties concerning the interpretation or application of this Convention may be submitted to the procedures provided for in this section only after local remedies have been exhausted where this is required by international law". There are, however, exceptional circumstances that

asserting its own right, the right to ensure, in the person of its subjects, respect for the rules of international law".

219 Article 1 of the ILC draft articles on Diplomatic Protection defines diplomatic protection as "For the purposes of the present draft articles, diplomatic protection consists of the invocation by a State, through diplomatic action or other means of peaceful settlement, of the responsibility of another State for an injury caused by an internationally wrongful act of that State to a natural or legal person that is a national of the former State with a view to the implementation of such responsibility".

220 Commentary 2 to article 1 of ILC draft articles on Diplomatic Protection.

221 See commentary 9 to article 1 of the ILC draft articles on Diplomatic Protection.

222 See Article 8 of the ILC draft articles on Diplomatic Protection.

223 See Article 3 (1) of the ILC draft articles on Diplomatic protection.

224 These persons are stateless persons and refugees as referred to and qualified in draft article 8 of the ILC draft articles on Diplomatic Protection.

225 See Article 14(1) of the ILC draft articles on Diplomatic Protection.

226 See Article 14(2) of the ILC draft articles on Diplomatic Protection.

227 See commentary 1 to Article 14 (1) of the ILC draft articles on Diplomatic Protection.

228 See commentary 1 to Article 14(1) of the ILC draft articles on Diplomatic Protection

may dispense with the requirement of the exhaustion of local remedies[229]. I shall not deal with these exceptions on this note on the jurisprudence of the Tribunal as none of them has been so far the object of pronouncements by the Tribunal.

On a number of cases brought before the Tribunal, the issue of the non-exhaustion of local remedies has been resorted to by parties to the dispute as a defence. Respondent parties have presented arguments, requesting the Tribunal to dismiss the cases against them altogether; on the basis that the request or claims presented by the applicant parties are not admissible. It is about the jurisprudence developed by the Tribunal in respect of its positions and pronouncements taken on the issue of the non-exhaustion of local remedies and the nationality of claims raised in the context of these cases brought before it that I will address on this note of the Tribunal's jurisprudence.

The issues of the non-exhaustion of local remedies and of nationality of claims were raised in Saiga 2 and Virginia G cases[230]. Most recently, these issues were once again dealt with in the Preliminary Objections raised by Italy, concerning Case 25[231].

Though the factual circumstances of these three cases are different, the States raising the issue of the non-exhaustion of local remedies in all of these cases based their positions on similar arguments: that the rights claimed to have been violated are not rights of the State instituting the proceedings before the Tribunal but rather rights of its citizens and, as such, the affected citizens should have exhausted the local remedies before the State of their citizenship could institute proceedings before the Tribunal, seeking to protect the rights of its citizens.

Before the Tribunal, the issue of the exhaustion of local remedies has always been presented in the context of the rights of the ship-owner, ship operators and ship crews being taken up by the flag State in order to obtain redress for alleged violations of their rights or for injury caused to them by an internationally wrongful act committed by another State. The respondent State, questioning the admissibility of the request or claim presented by the

229 See Article 15 of the draft articles on Diplomatic Protection.

230 See www.itlos.org, Saiga 2 Case, between Saint Vincent and the Grenadines and Guine. See also Virginia G case between Panama and Guine Bissau.

231 Case 25, a case on the merits, between Italy and Panama, is still pending.

applicant State, has done so on the basis of essentially two arguments: that the rights for which protection of the Tribunal is being sought are not 'direct' rights of the applicant State as such, but rather persons' rights; and that the ship-owners, ship operators and ship crew members or some of them are not citizens of the flag State instituting proceedings and, therefore, cannot be under its diplomatic protection, as the rule of nationality of claims is not met.

It is to be noted that, though the parties, that have argued the issue of the exhaustion of local remedies before the Tribunal, have done so in the context of cases brought up under diplomatic protection, a distinction must be made between diplomatic protection and the judicial protection of a ship and its crew members, as well as of other natural and juridical persons linked to the operations of the ship, provided by the flag State.

The distinction between the two approaches is not so clearly established or well perceived in the jurisprudence of the Tribunal and, at times, confusion may set in. The Tribunal itself, while recognizing that, "[…] the exercise of diplomatic protection by a State in respect of its nationals is to be distinguished from claims made by a flag State for damage in respect of natural and juridical persons involved in the operation of its ship who are not nationals of that State"[232], have not provided explanations that could clarify these differences.

While in the case of diplomatic protection the State has basically the right to protect the rights of its nationals and not those of foreign nationals safe, in exceptional circumstances, the rights of stateless persons or refugees, who are habitual and legal residents in that State[233], in the case of the proceedings instituted by the flag State the judicial protection is given to all those natural and juridical persons that have been injured as a result of a wrongful act inflicted upon the ship by another State, whether they are nationals of the flag State or not. In this case, the factor that attracts the protection of the flag State is the need to protect the ship as a whole, or as a unit.

As cogently put by the Tribunal in the Saiga 2 Case, UNCLOS "considers a ship as a unit, as regards the obligations of the flag State with respect to the ship and the right of a flag State to seek reparation for loss or damage caused to the ship by acts of other States […][234] and "the ship, everything on it, and

232 See paragraph 128 of Judgment ITLOS Virginia G Case.

233 See article 8 of the ILC draft articles on Diplomatic Protection.

234 See paragraph 106 of Judgment ILOS Saiga 2 Case.

every person involved or interested in its operations are treated as an entity linked to the flag State. The nationalities of these persons are not relevant"[235]. The reason for this approach, as explained by the Tribunal in the Saiga 2 Case, is based on basic requirements of modern maritime transportation, referred to below.

It is to be observed that this 'ship-as-a-unit' doctrine set by the Tribunal in the Saiga 2 Case inspired the adoption of the draft article 18 of the ILC draft articles on Diplomatic Protection, though the purpose of this draft article, which is limited to ship crew members, is to safeguard that "[T]he right of the State of nationality of the members of the crew of a ship to exercise diplomatic protection is not affected by the right of the State of nationality of a ship to seek redress on behalf of such crew members, irrespective of their nationality, when they have been injured in connection with an injury to the vessel resulting from an internationally wrongful act". The approach of the Tribunal concerning the protection by the flag State of the rights of those natural or juridical persons involved with the operation of a ship is by far broader than the narrow approach taken by draft article 18 referred to above.

The nationality of claims has been another issue raised by the respondent parties. The issue, as it has been argued before the Tribunal, boils down to requesting the Tribunal to dismiss the case on the basis that the persons whose rights the protection of which is being sought or pursued by the applicant State are not its nationals and therefore the case should be dismissed as the claim submitted by the applicant State is not admissible.

This argument, that has been time and again put forward by the respondent parties that appeared before the Tribunal in all the three cases referred to above, is predicated on the assumption that the cases were filed as diplomatic protection cases. If that were to be the case, then the argument for the dismissal of these cases on the nationality ground would be in order because, as referred to above, on cases of diplomatic protection States may only, as a rule, take up the protection of the rights of its citizens and not those of foreigners[236].

However, as has been mentioned above, cases of diplomatic protection are different from cases submitted or that may be submitted by the flag State to protect the rights of the ship as a unit. In this case, the issue of the

235 See paragraph 106 of Judgment ITLOS Saiga 2 Case.

236 See draft article 8 of the ILC draft articles on Diplomatic Protection, which provides for 2 exceptions.

nationality of all those involved in the operations of the ship is not relevant. The very concept of a ship as a unit makes the nationality requirement irrelevant. The only nationality link that is required is between the ship and the applicant State. The ship whose rights are being protected should bear the applicant State's nationality, that is the flag State. This requirement does not apply to those persons linked to the operations of the ship. This is one of the fundamental distinctions between cases submitted under diplomatic protection and cases submitted by the flag State to protect its ship as a unit.

II. Tribunal's Case Law

To better illustrate the issues of the exhaustion of local remedies and the nationality of claims, as they have been examined in the Tribunal's case law, I shall resort to the relevant paragraphs of these three cases which canvas the fundamentals of the Tribunal's jurisprudence in this regard.

1. Saiga 2 Case

The Saiga 2 Case is the first case on the merits decided by the Tribunal. Notwithstanding being then a new judicial institution, the Tribunal handed down in 1999 a very well-thought decision. In many ways the Saiga 2 judgment may be considered a landmark case in the Tribunal's jurisprudence. The case involved Saint Vincent and the Grenadines and Guinea, as parties. "The *Saiga* was provisionally registered in Saint Vincent and the Grenadines[237]" at the time of the arrest in 1997. "The Master and crew of the ship were all of Ukrainian nationality. There were also three Senegalese nationals who were employed as painters. The *Saiga* was engaged in selling gas oil as bunker and occasionally water to fishing and other vessels off the coast of West Africa".[238] Guinea had arrested the Vincentian oil tanker, while this ship was providing bunkering to fishing vessels off the coast of Guinea.

At the core of this case was the request for compensation presented by Saint Vincent and the Grenadines for alleged internationally wrongful act inflicted upon it by Guinea. As the compensation requested by Saint Vincent and the Grenadines included the compensation for the foreign ship-owner and the foreign crew members, the issue of the non-exhaustion of local remedies was raised by Guinea in the following terms: "Guinea […] objects to the

237 See paragraph 31 of Judgment ITLOS Saiga 2 Case.

238 See paragraph 31 of Judgment ITLOS Saiga 2 Case.

admissibility of certain claims advanced by Saint Vincent and the Grenadines in respect of damage suffered by natural and juridical persons as a result of the measures taken by Guinea against the *Saiga*. It contends that these claims are inadmissible because the persons concerned did not exhaust local remedies, as required by article 295 of the Convention"[239]. "In particular, Guinea claims that the Master did not exhaust the remedies available to him under Guinean law by failing to have recourse to the Supreme Court (*cour suprême*) against the Judgment of 3 February 1998 of the Criminal Chamber (*chambre correctionnelle*) of the Court of Appeal of Conakry. Similarly, the owners of the *Saiga*, as well as the owners of the confiscated cargo of gas oil, had the right to institute legal proceedings to challenge the seizure of the ship and the confiscation of the cargo, but neither of them exercised this right."[240]

Saint Vincent and the Grenadines argued that the exhaustion of local remedies did not apply in this case, as the actions of Guinea against the *Saiga*, a ship flying its flag, violated its rights as a flag State under the Convention, including the right of its vessels concerning the freedom of navigation and other internationally lawful uses of the sea related to that freedom, as set out in articles 56 and 58 and other provisions of UNCLOS[241]. Saint Vincent and the Grenadines further argued that "the rule that local remedies must be exhausted applies only where there is a jurisdictional connection between the State against which a claim is brought and the person in respect of whom the claim is advanced. It argues that this connection was absent in the present case because the arrest of the ship took place outside the territorial jurisdiction of Guinea […]"[242].

In responding to the arguments of the parties on this issue, the Tribunal made important pronouncements. The Tribunal considered that the rights claimed by Saint Vincent and the Grenadines as having been violated by Guinea were "all rights that belong to Saint Vincent and the Grenadines under the Convention (articles 33, 56, 58, 111 and 292) or under international law"[243]. The Tribunal added that "None of the violations of rights claimed by Saint Vincent and the Grenadines, as listed in paragraph 97, can be described as breaches of obligations concerning the treatment to be accorded to aliens.

239 See paragraph 89 of Judgment ITLOS Saiga 2 Case.

240 See paragraph 80 of Judgment ITLOS Saiga 2 Case.

241 See paragraph 91 of Judgment ITLOS Saiga 2 Case.

242 See paragraph 92 of Judgment ITLOS Saiga 2 Case.

243 See paragraph 97 of Judgment ITLOS Saiga 2 Case.

They are all direct violations of the rights of Saint Vincent and the Grenadines. Damage to the persons involved in the operation of the ship arises from those violations. Accordingly, the claims in respect of such damage are not subject to the rule that local remedies must be exhausted"[244].

In response to the issue of a jurisdiction connection raised, the Tribunal, while observing that the parties had opposing views on whether there was a jurisdictional connection, they agreed that a prerequisite for the application of the rule was that there must be a jurisdictional connection between the person suffering damage and the State responsible for the wrongful act which caused the damage[245]. The Tribunal after considering the arguments of the parties as to the applicability of Guinea customs laws to this case concluded that "there was no jurisdictional connection between Guinea and the natural and juridical persons in respect of whom Saint Vincent and the Grenadines made claims"[246].

The issue of nationality of claims was also raised by Guinea on the grounds that certain claims of Saint Vincent and the Grenadines could not be entertained by the Tribunal because they related to violations of the rights of persons who were not nationals of Saint Vincent and the Grenadines. The claims of Saint Vincent and the Grenadines in respect of loss or damage sustained by the ship, its owners, the Master and other members of the crew and other persons, including the owners of the cargo, were clearly claims of diplomatic protection. Guinea's view was that Saint Vincent and the Grenadines was not competent to institute these claims on behalf of the persons concerned since none of them were a national of Saint Vincent and the Grenadines. During the oral proceedings, Guinea withdrew its objection as far as it related to the ship-owners, but maintained it in respect of the other persons"[247].

To this, Saint Vincent and the Grenadines took exception and maintained it had the right to protect the ship flying its flag and those who serve on board, irrespective of their nationality, arguing that "the rule of international law that a State is entitled to claim protection only for its nationals does not apply to claims in respect of persons and things on board a ship flying its flag. In such cases, the flag State has the right to bring claims in respect of violations against the ship and all persons on board or interested in its operation"[248].

244 See paragraph 98 of Judgment ITLOS Saiga 2 Case.

245 See paragraph 99 of Judgment ITLOS Saiga 2 Case.

246 See paragraph 100 of Judgment ITLOS Saiga 2 Case.

247 See paragraph 103 of Judgment ITLOS Saiga 2 Case.

248 See paragraph 104 of Judgment ITLOS Saiga 2 Case.

In response to the opposing views of the parties on this issue of nationality of claims, the Tribunal, after referring to the UNCLOS provisions concerning the duties of the flag State regarding ships flying its flag, set out the obligations of the flag State which can be discharged only through the exercise of appropriate jurisdiction and control over natural and juridical persons such as the Master and other members of the crew, the owners or operators and other persons involved in the activities of the ship. The Tribunal added that no distinction is made in these provisions between nationals and non-nationals of a flag State. Additionally, articles 106, 110, paragraph 3, and 111, paragraph 8, of the Convention contain provisions applicable to cases in which measures have been taken by a State against a foreign ship. The Tribunal stated that UNCLOS considers a ship as a unit, as regards the obligations of the flag State with respect to the ship and the right of a flag State to seek reparation for loss or damage caused to the ship by acts of other States[…][249],

The Tribunal concluded by making the important pronouncement that "the ship, everything on it, and every person involved or interested in its operations are treated as an entity linked to the flag State, clarifying that [T]he nationalities of these persons are not relevant"[250]. The Tribunal's position was based on the "[…] two basic characteristics of modern maritime transport. They are the transient and multinational composition of ships' crews and the multiplicity of interests that may be involved in the cargo on board a single ship. The Tribunal explained that [A] container vessel carries a large number of containers, and the persons with interests in them may be of many different nationalities. This may also be true in relation to cargo on board a break-bulk carrier. Any of these ships could have a crew comprising persons of several nationalities. If each person sustaining damage were obliged to look for protection from the State of which such person is a national, undue hardship would ensue"[251], The Tribunal was therefore, unable to accept Guinea's contention that Saint Vincent and the Grenadines was not entitled to present claims for damages in respect of natural and juridical persons who were not nationals of Saint Vincent and the Grenadines[252].

249 See paragraph 106 of Judgment ILOS Saiga 2 Case.

250 See paragraph 106 Judgment ITLOS Saiga 2 Case.

251 See paragraph 107of Judgment ITLOS Saiga 2 Case.

252 See paragraph 108 of Judgment ITLOS Saiga 2 Case.

2. Virginia G Case

The issue of exhaustion of local remedies and nationality of claims was also raised during the consideration of Virginia G Case[253]. This case involved Panama and Guinea Bissau. As noted in the factual background of the Judgment, "The *M/V Virginia G* was an oil tanker flying the flag of Panama at the time of its arrest on 21 August 2009"[254]. The *M/V Virginia G* was "owned by Penn Lilac Trading S.A. (Penn Lilac), a company incorporated in Panama in 1998. In January 2000, Penn Lilac bought the vessel and in January 2002 concluded an agency commission agreement with Gebaspe SL (Gebaspe), a Spanish company acting as intermediary between fuel suppliers and owners of commercial fishing vessels. In 2009, the vessel was chartered out to Lotus Federation (Lotus), an Irish company selling and supplying gas oil to fishing vessels, and remained chartered out to that company at the time of the arrest"[255]. "At the time of the arrest, the captain of the vessel was[…] a national of Cuba. There were eleven crew members on board, seven of whom were nationals of Cuba, three of Ghana, and one of Cape Verde (now "Cabo Verde"[256]).

On the issue of exhaustion of local remedies the parties had opposing views. Guinea-Bissau contested the admissibility of certain claims espoused by Panama in the interest of individuals or private entities, because these individuals or private entities had not exhausted the local remedies available to them in Guinea-Bissau[257]. In its view the Parties to this dispute had not agreed to exclude the local remedies rule in their special agreement, and therefore article 295 of the Convention had to be taken into account in the proceeding[258] and if there were violations of the rights of private entities as a result of its action, these entities should first have to bring actions before the courts of Guinea-Bissau[259].

Panama had an opposite view on this issue, arguing that the rule on exhaustion of local remedies does not apply in this case, "first because the

253 ITLOS Case 19.

254 See paragraph 55 of Judgment ITLOS Virginia G Case.

255 See paragraph 56 of Judgment ITLOS Virginia G Case.

256 See paragraph 57 of Judgment ITLOS Virginia G Case.

257 See paragraph 131 of Judgment ITLOS Virginia G Case.

258 See paragraph 132 of Judgment ITLOS Virginia G Case.

259 See paragraph 133 of Judgment ITLOS Virginia G Case.

rule of exhaustion is superseded by the special agreement", adding that "this special agreement of itself precludes Guinea-Bissau from raising objections and this would be particularly true in relation to the objection based on non-exhaustion of local remedies".[260] Panama further argued that in these proceedings Panama is claiming a violation of its own right to secure, in respect of vessels flying its flag, freedoms provided for in UNCLOS.[261] It added that the breaches or violations of the Convention carried out by Guinea-Bissau related first and foremost to the flag State. Its freedom of navigation and the right to operate a ship had been violated. It argued that this right belongs essentially to Panama under articles 56, 58, 73, and 90 of UNCLOS, and that its claims were based upon its rights as a flag State, under UNCLOS[262]. It clarified though that it would allocate the respective portions of compensation that it might be awarded, should the Tribunal find in its favour, to the natural and legal persons who suffered damages and losses as a consequence of Guinea-Bissau's breaches of its international obligation[263].

The Tribunal in this case, while affirming its position taken in Saiga 2 Case concerning the issue of exhaustion of local remedies and observing that "it is a well-established principle of customary international law that the exhaustion of local remedies is a prerequisite for the exercise of diplomatic protection"[264], embraced the so-called preponderance test, a somewhat different approach to evaluate whether the issue of exhaustion of local remedies was applicable in this case[265]. After it noted that the exhaustion of local remedies rule did not apply where the claimant State was directly injured by the wrongful act of another State, the Tribunal considered whether in the circumstances of the this case the claims of Panama related to a "direct" violation on the part of Guinea-Bissau of the rights of Panama[266] and concluded that most provisions of UNCLOS referred to in the final submissions of Panama conferred rights mainly on States[267]. The Tribunal's view was that when the "claim contains elements of both injury to a State and injury to an individual, for the purpose

260 See paragraph 141 of Judgment ITLOS Virginia G Case.

261 See paragraph 142 of Judgment ITLOS Virginia G Case.

262 See paragraph 142 of Judgment ITLOS Virginia G Case.

263 See paragraph 143 of Judgment ITLOS Virginia G Case.

264 See paragraph 153 of Judgment ITLOS Virginia G Case.

265 See paragraph 152 of Judgment ITLOS Virginia G Case.

266 See paragraphs 153 and 154 of Judgment ITLOS Virginia G Case.

267 See paragraph 156 of Judgment ITLOS VIRGINIA G Case.

of deciding the applicability of the exhaustion of local remedies' rule, the Tribunal has to determine which element is preponderant"[268]. The Tribunal, in concluding that the rights claimed were rights that belonged to Panama under UNCLOS and that the alleged violations of them amounted to direct injury to Panama, took the view that the claim of Panama as a whole is brought on the basis of an injury to itself[269] and concluded that the claims in respect of such damage were not subject to the rule of the exhaustion of local remedies[270].

This reasoning of the Tribunal based on the considerations of a preponderant test seems to be enveloped in a conceptual confusion, in contradiction to the well-crafted Saiga 2 'ship-as-a-unit' doctrine. While the preponderant test may, arguably, be applied in a case of diplomatic protection for the determination as to whether, the claim is essentially one of protection of the right of the State as such or rather of the persons involved, for the purposes of determining whether the exhaustion of local remedies is called for or not, applying this test to a case brought up by the flag State aimed at protecting its ship and all those persons involved in its operations that have been injured as a result of a wrongful act against the ship, is tantamount to casting aside the Saiga 2 'ship as-a-unit' doctrine, Fortunately in the Preliminary Objections raised by Italy in the context of Case 25, the Tribunal did not embrace the wrong approach followed in the Virginia G Case.

The Tribunal also considered the issue of nationality of claims. This issue was raised by Guinea-Bissau as one of the arguments for the non-admissibility of Panama's claims. Guinea-Bissau position in this regard was based on the argument that "the framework of diplomatic protection does not give Panama *locus standi* referring to claims of persons or entities that are not nationals of Panama" and that "Panama is therefore not entitled to bring this action against Guinea-Bissau within the framework of diplomatic protection". It added that "there is not a single person or entity related to the vessel Virginia G which is of Panamanian nationality" and that "Panama asserts protection before the Tribunal for all crew members and for the owners of ship and cargo" while "[i]t is undisputed here that none of these persons are nationals of Panama"[271]. Guinea-Bissau concluded by stating that the "ship-as-a-unit"

268 See paragraph 157 of Judgment ITLOS Virginia G Case.

269 See paragraph 157 of Judgment ITLOS Virginia G Case.

270 See paragraph 158 of Judgment ITLOS Virginia G Case.

271 See paragraph 122 of Judgment ITLOS Virginia G Case.

doctrine that emerged from Saiga 2 Case did not apply to the Virginia G case as it did not involve vessels where a number of nationalities and interests were concerned, observing that, neither the owner, nor even a single member of the crew of Virginia G is of Panamanian nationality[272].

Panama had stated that it was "[…] bringing this action against Guinea Bissau within the framework of diplomatic protection" and that it "takes the cause of its national and the vessel Virginia G with everything on board, and every person and entity involved or interested in her operations, which, it is claimed, has suffered injury caused by Guinea-Bissau[273].

The Tribunal, after considering that the request of Panama was to be understood in the light of the object of its claim, namely, claims made in respect of alleged violations of provisions of the Convention which resulted in damage caused to, *inter alia*, the ship, the ship-owner, persons and cargo on board[274] and recalling its ship-as-a-unit doctrine that emerged from Saiga 2 Case,[275] found that the *M/V Virginia G* is to be considered as a unit and therefore the *M/V Virginia G*, its crew and cargo on board as well as its owner and every person involved or interested in its operations are to be treated as an entity linked to the flag State. The Tribunal therefore, concluded that Panama was entitled to bring claims in respect of alleged violations of its rights under the Convention which resulted in damages to these persons or entities[276]. The Tribunal observed that, in accordance with international law, the exercise of diplomatic protection by a State in respect of its nationals is to be distinguished from claims made by a flag State for damage in respect of natural and juridical persons involved in the operation of a ship who are not nationals of that State[277]. The Tribunal therefore rejected the objection raised by Guinea-Bissau to the admissibility of Panama's claims based on the argument that the owner of the vessel and the crew were not nationals of Panama[278].

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272 See paragraph 123 of Judgment ITLOS Virginia G Case.

273 See paragraph 19 of Judgment ITLOS Virginia G Case.

274 See paragraph 125 of Judgment ITLOS Virginia G Case.

275 See paragraph 126 of Judgment ITLOS Virginia G Case.

276 See paragraph 127 of Judgment ITLOS Virginia G Case.

277 See paragraph 128 of Judgment ITLOS Virginia G Case.

278 See paragraph 129 of Judgment ITLOS Virginia G Case.

3. The M/V Norstar Case[279]

Recently, the Tribunal had to consider preliminary objections raised by Italy in connection with the M/V Norstar Case. In accordance with the factual background of this case, the "Norstar" was an oil tanker flying the flag of Panama, and it was engaged in supplying gasoil to mega yachts, in an area described by Panama as "international waters beyond the Territorial Sea of Italy, France and Spain" and by Italy as "off the coasts of France, Italy and Spain". According to Italy, the vessel was owned by *Inter Marine & Co AS*, managed by *Borgheim Shipping*, which are both Norwegian-registered companies, and chartered out to *Nor Maritime Bunker*, a Maltese-registered company[280].

In September 1998 the ship was seized by the Spanish authorities while it was anchored in the Bay of Palma de Mallorca, Spain[281], upon request of the Public Prosecutor at the Court of Savona, Italy, who issued a Decree of Seizure against it, in the context of criminal proceedings against eight individuals for the alleged offences of criminal association aimed at smuggling mineral oils and tax fraud. This request of seizure was based on judiciary cooperation, pursuant to article 15 of the European Convention on Mutual Assistance in Criminal Matters done in Strasbourg on 20 April 1959 and article 53 of the "Schengen Agreement of 14 June 1985"[282] [283].

In its Application of Preliminary Objections, Italy adduced several arguments, objecting the admissibility of Panama's claim. I will only refer here to the two objections to the admissibility of Panama's claim, concerning the nationality of claims and the exhaustion of local remedies.

Italy argued that this case was manifestly one of diplomatic protection and that, accordingly, under the well-established rules of international law on diplomatic protection the claim could only have been brought up if the alleged internationally wrongful act complained about in Panama's Application had affected its own nationals[284]. It noted that "Norstar" was neither owned, fitted out, or rented, by a natural or legal person of Panamanian nationality, nor

279 This is ITLOS case 25, still pending.

280 See paragraph 41 of Judgment Preliminary Objections ITLOS Norstar Case (Case 25).

281 See paragraph 41 of Judgment Preliminary Objections, ITLOS Norstar Case.

282 See paragraph 42 of Judgment Preliminary Objections ITLOS Norstar Case.

283 See paragraph 43 of Judgment Preliminary Objections ITLOS Norstar Case.

284 See paragraph 223 of Judgment Preliminary Objections ITLOS Norstar Case.

were the accused in the Italian criminal proceedings Panamanian nationals. Therefore the Tribunal should declare Panama's claim inadmissible[285].

Contrary to Italy, Panama argued that the case was admissible because it had the right to protect its national subjects by diplomatic action or through the institution of international judicial proceedings"[286]. It maintained that under UNCLOS, it had the right and duty to protect its registered vessels and use peaceful means to assure that other members of the international community respect its rights. The fact that the victims of the wrongful conduct of Italy were not nationals of Panama did not disqualify this claim because it was based on the deprivation of the property of a juridical person having a vessel registered in Panama[287]. Arguing that it brought up the claim before the Tribunal precisely because the vessel Norstar was its national subject, Panama[288] referred to Saiga 2 Judgment in its support, stating that a flag State is entitled to present claims for damages on behalf of natural and juridical persons who are not its own nationals[289].

In assessing the arguments of the two parties concerning the issue of nationality of claims, the Tribunal started by recalling that in the Virginia G Case it had stated that the exercise of diplomatic protection by a State in respect of its nationals is to be distinguished from claims made by a flag State for damage in respect of natural and juridical persons involved in the operation of a ship who are not nationals of that State[290]. In this regard it recalled that in the Saiga 2 and Virginia G Cases it stated that any of these ships could have a crew comprising persons of several nationalities. If each person sustaining damage were obliged to look for protection from the State of which such person is a national, undue hardship would ensue[291]. The Tribunal recalled that in Saiga 2 and in Virginia G Cases it had stated that, under UNCLOS, a ship is to be considered a unit "as regards the obligations of the flag State with respect to the ship and the right of a flag State to seek reparation for loss or damage caused to the ship by acts of other States and that the ship, everything on it, and every person involved or interested in its

285 See paragraph 224 of Judgment Preliminary Objections ITLOS Norstar Case.

286 See Paragraph 225 of Judgment Preliminary Objections ITLOS Norstar Case.

287 See paragraph 226 of Judgment Preliminary Objection ITLOS Norstar Case.

288 See paragraph 227 of Judgment Preliminary Objection ITLOS Norstar Case.

289 See paragraph 228 of Judgment Preliminary Objections ITLOS Norstar Case.

290 See paragraph 229 of Judgment Preliminary Objections ITLOS Norstar Case.

291 See paragraph 229 of Judgment Preliminary Objections ITLOS Norstar Case.

operations are treated as an entity linked to the flag State", the nationalities of these persons not being relevant[292]. It therefore concluded that the Norstar was to be considered a unit and therefore the Norstar itself, its crew and cargo on board, as well as its owner and every person involved or interested in its operations were to be treated as an entity linked to the flag State, irrespective of their nationalities[293]. On these grounds, the Tribunal rejected the objection raised by Italy based on the nationality of claims[294]. It is to be observed that here the Tribunal relied totally on the reasoning of the Saiga 2 Case, thus embracing, and rightly so, the 'ship-as-a-unit' doctrine that emerged during the consideration of the Saiga 2 case.

Italy argued that Panama's claim predominantly, if not exclusively, pertained to alleged 'indirect' violations', that is, rights relating to the Norstar's owner and, therefore, Panama's Claim was of an espousal nature. Consequently, the rule of the local remedies applied, irrespective of the nationality requirement. Panama's claim was, as a result, inadmissible[295]. Italy stated claims presented by States on the basis of diplomatic protection or by the flag State, seeking redress for the injury suffered by 'the ship, everything on it and every person involved or interested in its operations', are both of an espousal nature"[296]. It maintained that these claims are equally 'indirect' in nature" and that when a claim is lodged by the flag State, preponderantly, if not exclusively, to seek redress for the individuals involved in the operation of the ship, the local remedies rule applies on the same grounds as in a diplomatic protection case[297].

Panama's position was that the claim was admissible on the grounds that it has the right to protect its national subjects by diplomatic action or through the institution of international judicial proceedings and also because it is not prevented from doing so by … the requirement to exhaust local remedies"[298], adding that the claim was not one of diplomatic protection, nor was it espousal or based on indirect violations", but rather one involving a direct violation of its rights accorded by UNCLOS[299]. It submitted that

292 See paragraph 230 of Judgment Preliminary Objections ITLOS Norstar Case.

293 See paragraph 231 of Judgment Preliminary Objections ITLOS Norstar Case.

294 See paragraph 232 of Judgment Preliminary Objections ITLOS Norstar Case.

295 See paragraph 234 of Judgment Preliminary Objections ITLOS Norstar Case.

296 Adopted in 2006 by ILC.

297 See paragraph 235 of Judgment Preliminary Objection ITLOS Norstar Case.

298 See paragraph 250 of Judgment Preliminary Objections ITLOS Norstar Case.

299 See paragraph 251 of Judgment Preliminary Objections ITLOS Norstar Case.

the exhaustion of local remedies rule did not apply since the actions of Italy against the ship Norstar violated the right of Panama, as a flag State, under UNCLOS to have its vessels enjoy the freedom of navigation and other internationally lawful uses of the sea related to that freedom[300]. Panama concluded by stating that the rights claimed by Panama are not based on obligations concerning the treatment of aliens, but rather on the treatment of a Panamanian vessel, the rights of which were violated. Therefore, the rule of exhaustion of local remedies did not apply in this case[301].

In considering the issue whether the exhaustion of local remedies applied or not to the Norstar Case, the Tribunal avowedly followed the same approach as in the Saiga 2 and Virginia G Cases.[302] In examining Panama's rights under UNCLOS, the Tribunal concluded that articles 87 and 300 of the Convention were relevant to the case[303] and that the right of Panama to enjoy freedom of navigation on the high seas is a right that belongs to Panama under article 87 of the Convention. A violation of that right would amount to direct injury to Panama[304] The claim for damage to the persons and entities with an interest in the ship or its cargo arises from the alleged injury to Panama. Accordingly the Tribunal concluded that the claims in respect of such damage were not subject to the rule of exhaustion of local remedies[305] and therefore rejected the objection raised by Italy based on the non-exhaustion of local remedies[306].

III. Concluding remarks

As referred to above, cases brought up under the diplomatic protection and cases brought up under the "ship-as-a-unit" doctrine are procedurally akin. There are nonetheless fundamental distinctions to be made between the two. The Tribunal may wish to draw these distinctions in the next case the it may receive involving these issues. There is a need to make these distinctions clearly, especially in the light of the approach taken in the Virginia G Case. As I see it, in cases submitted by the flag State for the protection of the rights

300 See paragraph 252 of Judgment Preliminary Objections ITLOS Norstar Case.

301 See paragraph 256 of Judgment Preliminary Objections ITLOS Norstar Case.

302 See paragraph 268 of Judgment Preliminary Objections ITLOS Norstar Case.

303 See paragraph 269 of Judgment Preliminary Objections ITLOS Norstar Case.

304 See paragraph 270 of Judgment Preliminary Objections ITLOS Norstar Case.

305 See paragraph 171 of Judgment Preliminary Objections ITLOS Norstar Case.

306 See paragraph 273 of Judgment Preliminary Objections ITLOS Norstar Case.

of its ship as a unit, the issue of the nationality of the persons linked to the ship is not relevant, nor is the issue of the exhaustion of local remedies. The persons injured, as a result of an injury caused to a ship should not go through the local remedies as a prerequisite for the flag State to have recourse to international courts or tribunals as this would be incompatible with the concept of a ship as a unit. Much less the application of the preponderant test in a case brought by the flag State to protect the right of the ship as a unit.

4

LEGAL, POLITICAL AND STRATEGIC ASPECTS OF THE SUBMISSION TO THE COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF

Rodrigo Fernandes More

> "An interesting aspect of the international legal regimen of the continental shelf is, where does the legal regimen apply in a physical or geographical sense?"[307]

The continental shelf is single, and so there is no distinction between the shelf within 200 nm and the shelf beyond that limit[308]. And, as a consequence

307 McDorman. "The continental shelf". In: ROTHWELL, D. et al. The Oxford Handbook of the The Law of the Sea. (Oxford University Press) (2015), 181.

308 Delimitation of the maritime boundary in the Bay of Bengal (Bangladesh/Myanmar) (Judgment) [2012] ITLOS Report (Brill), vol. 12, [361] (hereinafter *Bangladesh/Myanmar Case*); Delimitation of the maritime boundary in the Bay of Bengal Arbitration (Bangladesh v. India) (Judgment) [2014], Permanent Court of Arbitration, [77] (hereinafter *Bangladesh/India Case*). Maritime Boundary Arbitration (Barbados v. Trinidad and Tobago) (Judgment) (2006), RIAA, Vol. XXVII, 147, at pp. 208-209, [213] (hereinafter *Barbados/Trinidad and Tobago*).

of being a natural prolongation of the land territory, appurtenant to the continental crust, and existing "ipso facto" and "ab initio"[309], under Article 76 of the United Nations Convention on the Law of the Sea (Convention), the coastal State has a natural entitlement to the extension of the shelf "throughout the natural prolongation of its land territory to the outer edge of the continental margin". Deriving from this entitlement are the sovereign rights as set out in Article 77 of the Convention, which do not depend "on occupation, effective or notional, or on any express proclamation"[310] of the coastal State. These are the combined legal and geological dimensions of the continental shelf.

The continental shelf also has physical and geographical dimensions that need to be considered. The delineation of the outer limit of the continental shelf beyond 200 nautical miles (nm) precisely indicates the "ipso facto" (as a consequence of appurtenance) polygon over which sovereign rights are opposable "erga omnes" (against all States) and existing "ab initio" (since de beginning).

The preliminary question that arises from the multiple dimensions of the continental shelf is: can the coastal State unilaterally exercise sovereign rights over the claimed shelf beyond 200 nm irrespective of a submission to the Commission on the Limits of the Continental Shelf (CLCS)? In other words: is a submission to the CLCS a "conditio sine qua non" (prerequisite) for exercising such rights in a legal, geological, physical and geographical sense?

These questions are not merely theoretical. Despite the authoritative conclusions reported by the International Law Association (ILA) Committee on Legal Issues of the Outer Continental Shelf[311], Ted McDorman recently supported the thesis that no such submission is mandatory[312]. His arguments are based on the interpretation of the jurisprudence of the *North Sea*

309 North Sea Continental Shelf Cases (Federal Republic of Germany/Denmark; Federal Republic of Germany/The Netherlands) (Judgment) (1969) ICJ Report 1969, 3–56, [19] and [39]. (hereinafter *North Sea Continental Shelf Cases*).

310 Convention, Article 77 (3) reads as follows: "3. The rights of the coastal State over the continental shelf do not depend on occupation, effective or notional, or on any express proclamation."

311 ILA, Berlin Conference, 2004, p. 2; ILA, Toronto Conference, 2006, p. 2.

312 MCDORMAN, "The Continental Shelf", 185.

Continental Shelf Cases[313], the International Court of Justice (ICJ), the International Tribunal of the Law of the Sea (ITLOS) and the Permanent Court of Arbitration (PCA).

McDorman's arguments are valid, as they are based on an honest interpretation of the Convention and the jurisprudence, but the outcome sounds senseless and inconsistent under a systemic interpretation[314] of the Convention and also in the light of the effectiveness of the law of the sea in a geographical sense: the claimant is to exercise sovereign rights over which polygon beyond 200 nm?

Depending on the hermeneutics applied, McDorman's hypothesis that a CLCS submission is not a prerequisite for a coastal State's entitlement to exercise sovereign rights is not confirmed by the thesis of a single continental shelf and its sovereign rights existing "ipso facto" and "ab initio". This conclusion may be tested by the practice of the courts and the CLCS.

The ITLOS[315] and PCA[316] jurisprudence recognizes the function and importance of the CLCS in delineating the continental shelf beyond 200 nm. The jurisprudence also recognizes the very distinct legal nature between entitlement to the continental shelf beyond 200 nm and the exercise of inherent sovereign rights.

The same practice can be observed in the CLCS. Despite the fact the CLCS has no power to interpret the Convention, its practice, reinforced by the jurisprudential interpretation of the Convention, also confirms that the entitlement to the continental shelf beyond 200 nm is a combined legal and geological prerequisite for a coastal State's exercising those sovereign rights. Therefore, if a coastal State does not prove its entitlement—on geological, geomorphological or geophysical grounds as set out in Article 76 (4) to (8)—to delineate the outer limits of an extended continental shelf beyond 200 nm, the CLCS shall not recommend the outer limit that State submits.

For instance, the CLCS did not accept the technical and scientific

313 International Law Commission. Commentary to the articles concerning to the law of the sea. Article 68. Yearbook of the International Law Commission (1956) Vol. II, 298.

314 DISTEFANO, Giovanni; MAVROIDIS, Petros C. "L'interprétation systémique: le liant de l'ordre international". Columbia University Public Law & Legal Theory, Research Paper Series, 743-759.

315 *Bangladesh/Myanmar Case*, [375].

316 *Bangladesh/India Case*, [79].

documentation submitted by the United Kingdom (e.g. Ascension Island) and Brazil (e.g. Northern Brazilian Ridge)[317] as justification for their respective outer edge claims. According to the CLCS recommendations neither the United Kingdom nor Brazil passed the test of appurtenance[318]. It is absolutely relevant to state that the CLCS recommendations, despite their negative assertion of appurtenance, do not preclude the coastal State's right to make a revised or new submission within a reasonable time[319].

In the light of the combined legal, geological, physical and geographical dimensions of the continental shelf, should the United Kingdom or Brazil delineate the outer limit unilaterally, irrespectively of the CLCS's recommendations on the basis of their submissions, or based on any other material, by breaching (or interpreting) Article 76 (8) of the UNCLOS? If hypothetically so, would the only legal consequence be that the outer limit unilaterally delineated would cease to be "final and binding"? In the Separate Opinion issued by Judge Tafsir M. Ndiaye in the *Bangladesh/Myanmar Case*, the answers to both questions were negative[320].

Therefore, to exercise the subjective right to establish the outer limit of the continental shelf in accordance with Article 76 of the Convention, "[t]he coastal State is required to submit information on the limits of its continental shelf beyond 200 nm to the CLCS"[321]. It is a primary obligation of a coastal State as set out in Article 76 (8) of the Convention[322]. The sovereign rights defined in Article 77 derive from the fulfillment of this primary obligation, which is also hermeneutically consistent, in a systematic interpretation of the Convention, with the Area's legal regimen (Part XI of the Convention).

In addition, by applying the legal principle of "nemo auditur propriam

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317 The recommendations are available on the CLCS website.

318 Scientific and Technical Guidelines of the Commission on the Limits of the Continental Shelf (CLSC/11) (1999), [2.2.8].

319 According to Article 8 of Annex II to the Convention, "[i]n the case of disagreement by the coastal State with the recommendations of the Commission, the coastal State shall, within a reasonable time, make a revised or new submission to the Commission."

320 *Bangladesh/Myanmar Case*. Judge NDIAYE Separate Opinion, [54] and [55]. Also see: KUNOY, "The Admissibility of a Plea to an International Adjudicative Forum to Delimit the Outer Continental Shelf Prior to the Adoption of Final Recommendations by the Commission on the Limits of the Continental Shelf", 240.

321 *Bangladesh/India Case*, [79].

322 *Bangladesh/Myanmar Case*, [407].

turpitudinem allegans"[323], no coastal State should be entitled to sovereign rights over the continental shelf by breaching a primary obligation to the Convention.

Consequently, such a hypothetical breach of the Convention: i) disregards the powers and functions of the CLCS, and also those of the Authority; b) breaches the "pacta sunt servanda" and "good faith" obligations as set out in Article 26 of the 1969 Vienna Convention on the Law of Treaties[324]; c) offends the general principle of international law concerning the peaceful settlement of disputes as set forth in Chapter VI of the United Nations Charter and, specifically, in Part XV of the Convention; d) jeopardizes the "efficient implementation of the Convention[325]", the "efficient operation of the Convention[326]", and e) is not "consistent with the object and purpose of the Convention"[327].

The CLCS legitimates and declares the physical existence ("ipso facto") of the continental shelf beyond 200 nm by issuing recommendations. This procedure was established to legitimate the entitlement to the shelf beyond 200 nm by applying a conventional limitation to a natural prolongation of the land mass and also by barring States from acting unilaterally[328]. Article 76 (8) is essentially a rule for preventing disputes and fostering the efficient implementation and operation of the Convention by its bodies.

Considering the legal framework and systemic hermeneutics of the Convention, a coastal State shall not exercise any sovereign right over a polygon beyond 200 nm solely based on its own entitlement and delineation declaration. Consequently, coastal States shall not delineate the outer limit of the continental shelf unilaterally irrespective of a submission to the CLCS. However, there are controversies regarding the interpretation and hermeneutics of Articles 76 and 77 of the Convention.

As mentioned previously, McDorman supports the contrary by interpreting the jurisprudence and separating the combined legal and geological dimensions of the continental shelf from the physical and geographical. The

323 It is an old adage of Roman law and also a principle of Civil law that means "no one can be heard to invoke his own turpitude", in other words, a coastal State cannot be legally awarded by deliberating infringement of law, or no right may rise from wrongdoing.

324 UNTS, vol. 1155, n. 18.232, 331.

325 *Bangladesh/Myanmar Case*, [373].

326 Idem, [391].

327 *India/Bangladesh Case*, [82] "in fine".

328 *Bangladesh/Myanmar Case*, [407].

outcome of such an interpretation turns the Convention into a "tabula rasa" to be rewritten in accordance with the unilateral interests of coastal States and also to be served in slices to non-signatories.

McDorman's main argument[329] is that a State's inherent right to a legal continental shelf, as set out in Article 76 of the Convention, is already covered under customary international law[330], because the right to the continental shelf was restated in, but not created by, Article 76 of the Convention. Consequently, according to the author: a) the exercise of sovereign rights does not depend on any procedural requirement, and can be exercised irrespective of a submission to the CLCS; and b) the 10-year timeline for a submission of information to the CLCS, set out in Article 4 of Annex II to the Convention, is not applicable.

It is fair to conclude that, in accordance with McDorman's position, there is no legal ground supporting the existence of the CLCS, since every coastal State has an inherent right to set the outer limit beyond 200 nm whether or not it is a signatory state to the Convention. These are the "tabula rasa" effects we have pointed out.

Article 76 does not reflect customary international law. In the *Nicaragua v. Colombia Case*, Article 76 (1) was accepted as customary international law "inter partes" (just between the parties), for that case only[331]. That does not mean that it is recognized as customary international law "erga omnes".

329 McDorman, "The Continental Shelf", 185, 191 and 192.

330 Kunoy, op. cit., 242, note 26: "The question was debated at the Eighth Meeting of State Parties, at which it was concluded that the Commission should ask the UN Legal Counsel "for an opinion only when the problem actually arises"; see SPLOS/31, para 52." ATTARD et al., "The IMLI on International Maritime Law" (2014) (Oxford), notes 112 to 115. "This was rejected by the International Law Commission (ILA) Committee on the Legal Issues of the Continental Shelf in its First and Second Reports. While parties to a treaty can accord rights to non-parties, such rights have to be stated in a sufficiently clear manner and there must be both an intention on the part of the state parties to accord rights and an acceptance of those rights by third-party states. The text of Article 4 is ambiguous, but does not appear to fulfill these requirements."

331 Territorial Maritime Dispute (Nicaragua v. Colombia) (Judgment) (2012) ICJ Rep. [116]-[117]. In the case, "Nicaragua states that the provisions of Article 76, paragraphs 1 to 7, relating to the definition of the continental shelf and to the determination of the outer limits of the continental shelf beyond 200 nautical miles, have the status of customary international law", "[w]hile Colombia accepts that paragraph 1 of Article 76 reflects customary international law, it asserts that "there is no evidence of State practice indicating that the provisions of paragraphs 4 to 9 of Article 76 [of UNCLOS] are considered to be rules of customary international law".

The controversy surrounding the exercise of the inherent right to a continental shelf arises from the inference, or extensive interpretation, of the meaning of the wording used by ITLOS - "or any procedural requirements" - in paragraph 408 of the *Bangladesh v. Myanmar Case*[332]. For instance, McDorman (2016, 192) infers that "[w]hile the Tribunal does not clarify what it means by 'procedural requirements', given the clear statement on entitlement, the procedural requirements must include, among other things, submitting information to the CLCS and satisfying the technical requirements of Article 76."

As a mater of fact, the ITLOS did not clarify the meaning of "procedural requirements", but it made clear in paragraphs 406 and 410[333] of *Myanmar v. Bangladesh* that entitlement is a prerequisite for the issuance of recommendations by the CLCS; therefore, those "procedural requirements" cannot include a submission to the CLCS in which the entitlement is evidenced by the submitting coastal State.

The CLCS verifies the entitlement to the extension of the continental shelf beyond 200 nm by applying the test of appurtenance. Thus, under a systemic interpretation of the Convention, the entitlement can be understood as a prerequisite for existence of such sovereign rights. And only the delineation of the outer limits of a continental shelf shall allow the exercise and implementation of those rights in a legal, geological, physical and geographical sense, including those in the perspective of the coastal State in relation to its primary obligations before the Authority as set out in Article 82.

This is because, under Article 82, the coastal State will only make (and be obliged to make) contributions and payments to the Authority "in respect of the exploitation of the non-living resources of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured".

Finally, only a submission, but not inevitably an affirmative recommendation from de CLCS, will prevent the Authority from exercising its powers and functions over a polygon appurtenant to the land mass of the coastal State under analysis by the CLCS, because nothing in Part XI of the Convention, including the powers and functions of the Authority, "affects the establishment of the outer limits of the continental shelf in accordance with Part VI or the

332 *Bangladesh / Myanmar Case*, [408].

333 Ibid, [410].

validity of agreements relating to delimitation between States with opposite or adjacent coasts", as set out in Article 134 (4) of the Convention.

In the light of the controversies surrounding the interpretation of Articles 76 and 77; respecting the functions of the CLCS in performing the efficient implementation and operation of the Convention; evaluating the impact of the practice of States on the implementation of Article 82 and also on the powers and functions of the Authority; the comprehensive question (and the problem to be debated) in this paper is, as said at the beginning, whether a submission to the CLCS is a prerequisite for exercising sovereign rights by coastal States.

The methodology to be applied for solving the proposed problem is legal hermeneutics based on the systematic method, in order to explore two interpretative approaches regarding the sovereign rights over the continental shelf, and the exercise thereof: the extensive and the restrictive approach to Articles 76 and 77 of the Convention.

The extensive approach interprets sovereign rights in favor of their unrestricted exercise by the coastal States irrespective of any submission to the CLCS. The restrictive approach considers that the sovereign rights derive from the entitlement and, consequently, a submission becomes a prerequisite for exercising them. It is important to note that both approaches are valid under the perspective of the original interpreter of the Convention: the coastal State.

The hypotheses to be challenged are: a) only a submission to the CLCS, but not necessarily an affirmative recommendation, shall allow the coastal State to exercise sovereign rights over the polygon of the continental shelf beyond 200 nm; b) a submission to the CLCS performs not just the legal, but also the political and strategic functions of avoiding the Authority's exercising of powers over the polygon submitted by the coastal State to the CLCS, and, consequently, under the Area legal regimen, impedes applications by other States with respect to reserved or non-reserved areas inside the same polygon.

The objective of this study is to identify the effects and practical consequences of the systematic interpretation of the Convention by applying the methods of extensive and restrictive interpretation to Articles 76 and 77, having in focus the legal, political and strategic aspects of the submission to the CLCS.

1. The sovereign rights of the coastal State over the continental shelf

The sovereign rights of the coastal State set out in Article 77 of the Convention are the same as those set forth in Article 2 of the 1958 Geneva Convention on the Continental Shelf, which, in turn, was inspired by the 1956 International Law Commission (ILC) commentary on Article 68 of "Articles Concerning the Law of the Sea"[334]. The ILC grounded sovereign rights on the following basis:

> *…(7) The rights of the coastal State over the continental shelf do not depend on occupation, effective or notional, or on any express proclamation.*
>
> *(8) The Commission does not deem it necessary to expatiate on the question of the nature and legal basis of the sovereign rights attributed to the coastal State. The considerations relevant to this matter cannot be reduced to a single factor. In particular, it is not possible to base the sovereign rights of the coastal State exclusively on recent practice, for there is no question in the present case of giving the authority of a legal rule to a unilateral practice resting solely upon the will of the States concerned. However, that practice itself is considered by the Commission to be supported by considerations of law and of fact. In particular, once the seabed and the subsoil have become an object of active interest to coastal States with a view to the exploration and exploitation of their resources, they cannot be considered as res nullius, i.e., capable of being appropriated by the first occupier. It is natural that coastal States should resist any such solution. Moreover, in most cases the effective exploitation of natural resources must presuppose the existence of installations on the territory of the coastal State. Neither is it possible to disregard the geographical phenomenon whatever the term—propinquity, contiguity, geographical continuity, appurtenance or identity—used to define the relationship between the submarine areas in question and the adjacent non-submerged land. All these considerations of general utility provide a sufficient basis for the principle of the sovereign rights of the coastal State as now formulated by the Commission. As already stated, that principle, which is based on general principles corresponding to the present needs of the international community, is in no way incompatible with the principle of the freedom of the seas.*

During the judgment of the *North Sea Continental Shelf Cases*, the ICJ recognized that the continental shelf is part of the prolongation of the natural

334 See Golitsyn, "Continental Shelf Claims in the Arctic Ocean. A Commentary", (2009), 401-402.

land territory to the outer edge, existing "ipso facto and ab initio by virtue of its sovereignty over the land, and as an extension of it in an exercise of sovereign rights for the purpose of exploring the seabed and exploiting its natural resources"[335].

In this sense, the jurisprudence recognizes sovereign rights to the coastal State and also inherent rights[336] for exploiting and exploring its own seabed and its natural resources.

At the time of the *North Sea Continental Shelf Cases* judgment, or even prior to it, in 1956, during the ILC studies, there was no debate about the establishment of the outer limit of the continental shelf beyond 200 nm. There are no records of any debate of this nature in the archives of the 1958 Conference or in those of the 1960 2nd Conference on the Law of the Sea. Even the legal concept of continental shelf was quite different in 1958, based on depth (200 m), and practical limitations, rather than distance (200 nm) from the baselines or geological criteria: "*Article 1. For the purpose of these articles, the term "continental shelf" is used as referring (a) to the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 metres or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas; (b) to the seabed and subsoil of similar submarine areas adjacent to the coasts of islands.*"[337]

According to Nandan and Rosenne, the issue of establishing the outer limit of the continental shelf beyond 200 nm was only raised during the second session of the 3rd Conference on the Law of the Sea (1973-1982), in 1974[338]. Thus, the *North Sea Continental Shelf Cases* did not deal with a situation involving the establishment of the continental shelf beyond 200 nm. As a matter of fact, up to the first submission by Russia to the CLCS in 2002, or even in 1999, with the publication of the CLCS's "Scientific and Technical Guidelines"[339], there was no other case assessed by any international court or

335 *North Sea Continental Shelf Cases*, [19] and [39].

336 See GOLITSYN, op. cit., 401.

337 1958 Convention on the Continental Shelf, Article 1. UNTS United Nations, vol. 499, 311.

338 Nadan; Rosenne, "United Nations Convention on the Law of the Sea, 1982: A Commentary" (1993) (Martinus Nijhoff Publishers), vol. 2, 842.

339 At this same time, in 2001, the Authority signed the first contract for the exploitation of polymetallic nodules with a governmental consortium called "Interoceanmetal Joint Organization", formed by Bulgaria, Cuba, Slovakia, Poland, Czech Republic and Russia.

arbitral tribunal about the delimitation of the continental shelf beyond the 200 nm mark. These facts reinforce the conclusion that entitlement to the continental shelf beyond 200 nm is not part of customary international law, but was created by the Convention.

Interest in continental shelf resources will surely rise over the coming years, as will the number of maritime disputes before international tribunals. The continuous development of marine technologies dedicated to deep-sea exploration, including those in connection with Marine Scientific Research set out in Part XIII of the Convention, will increase the interest in exercising sovereign rights over continental shelves. Consequently, the initial estimated CLCS timetable for issuing recommendations to all submissions and preliminary information becomes uncertain as the number of new or revised submissions to the CLCS caused by disagreement with the recommendations continues to rise[340].

For a more comprehensive scenario on such chaos, add to that the possibility of submitting work plans to the Authority, contracts under negotiation and contracts already executed between the States, or sponsored entities and the Authority, and those to be renewed after expiry in 2016[341].

The preventive managing of these potential maritime disputes requires an investigation of the two interpretation forms– extensive and restrictive – of Articles 76 and 77 and Annex II, as well as their legal, political and strategic effects and practical consequences for the coastal States and the Authority (Article 82 and Annex III to the Convention).

The sovereign rights over the continental shelf are valid and recognized "in abstracto" (abstractly) as set out in Article 77. These rights depend on the entitlement of the coastal State to its natural prolongation of the land mass. However, those sovereign rights can only be exercised, protected and opposed by coastal States "in concreto" (concretely). Therefore, without a submission to the CLCS, how are we to identify over what part of the polygon beyond 200 nm the sovereign rights are supposed to apply?

340 Barbados (2011), Russia (2013 and 2015) and Brazil (2015) have presented partial revised submissions. See CLCSs website.

341 The full list of contracts with the Authority is available on its website. The contracts ending in 2016 are: Interoceanmetal Joint Organization (March 28), Yuzhmorgeologiya (March 28), Government of the Republic of Korea (April 26), China Ocean Mineral Resources Research and Development Association (May 21), Deep Ocean Resources Development Co. Ltd. (June, 19), Institut Français de Recherche pour l'Exploitation de la Mer (Jun 19).

2. The extensive interpretation of Articles 76 and 77 of the Convention, their effects and practical consequences

The extensive interpretation of Articles 76 and 77 of the Convention disconnects the sovereign rights over the continental shelf from entitlement to it. The existence of such rights "ipso facto" and "ab initio", as recognized in the *North Sea Continental Shelf Cases*, makes a submission to the CLCS unnecessary for the exercising of those sovereign rights. Those are what we called "tabula rasa" effects.

In addition to the arguments already presented in the introduction to this study, we will analyze the understanding taken by the Authority in §2.2.1 of Technical Study no. 5 (2010)[342]. This Technical Study reflects the extensive interpretation of the doctrine about the jurisprudence of the *North Sea Continental Shelf Cases* and of Articles 76 and 77 of the Convention. Nevertheless, it respects the functions of the CLCS and does not expressly exclude a submission to the CLCS as a primary obligation under the Convention. At this point, it is fair to conclude that Technical Study no. 5 is closer to the restrictive interpretation. §2.2.1, mentioned above, says:

> "2.2.1 This section shows how the implementation of Article 82 of the Convention relates to the continental shelf regime. Article 77 of the Convention provides coastal States with sovereign rights over the continental shelf, for the purpose of exploring and exploiting its natural resources. The sovereign rights of the coastal States over the continental shelf exist ab initio and ipso jure regardless of the extent of the continental shelf and regardless of the establishment of the outer limits of the continental shelf beyond 200M. They are exclusive and do not depend on effective or notional occupation or on any express proclamation. Therefore, a coastal State is entitled to exercise those rights even before the limits are final and binding. In other words, the extraction of resources from the OCS (which would in turn trigger the implementation of Article 82) is not contingent on the delineation of the outer limits of the continental shelf beyond 200M."

The first relevant point for this analysis is to consider that any technical study made by the Authority is not legally binding and does not represent any kind

342 International Seabed Authority, "Non-Living Resources of the Continental Shelf Beyond 200 Nautical Miles: Speculations on the Implementation of Article 82 of the United Nations Convention on the Law of the Sea". ISA Technical Study no. 5 (2010) (ISA), 14.

of interpretation of the Convention. Hence, we cannot even consider them as legal manifestations of the Authority's since it does not hold this legal competence under the Convention.

The Authority's technical studies are, however, valuable for orientation about the execution of the Authority's powers and functions as set out in the Convention. On this perspective, forcefully not legally binding, see the following the excerpt from §2.2.1:

> *The sovereign rights of the coastal States over the continental shelf exist ab initio and ipso jure regardless of the extent of the continental shelf and regardless of the establishment of the outer limits of the continental shelf beyond 200M.*

This excerpt reproduces the understanding of the *North Sea Continental Shelf Cases* about the nature of the continental shelf and its sovereign rights (*"The sovereign rights of the coastal States over the continental shelf exist ab initio and ipso jure regardless of the extent of the continental shelf"*), adding a particular technical conclusion of the Authority *("regardless of the establishment of the outer limits of the continental shelf beyond 200M"*).

Although not legally binding, it reiterates the establishment of the outer limits of the continental shelf beyond 200 nm as not in itself triggering Article 82. However, it does not expressly exclude the submission to the CLCS requested in Article 76 as a primary obligation for the delineation of the outer limit.

The grounding and reconfirmation of this conclusion is presented in the next excerpt from §2.2.1:

> *They are exclusive and do not depend on effective or notional occupation or on any express proclamation.*

The wording of this excerpt reproduces the provision from Article 77 (3) and reveals its legal nature as a right "in abstracto".

In the following excerpt, we see another technical conclusion of the Authority:

> *Therefore, a coastal State is entitled to exercise those rights even before the limits are final and binding.*

Note the expression *"...even before the limits are final and binding."* This expression raises questions regarding the chronology of the referred acts in

the Authority's study about what qualifies this "even before". Does it mean that the sovereign rights can be exercised:

> a) "even before" a submission or preliminary information by the coastal State to the CLCS?; or
>
> b) "even before" the recommendation issued by the CLCS, which the coastal State may agree with in order to trigger the legal effects of Article 76 (8)?

In our view, it seems the Authority is referring to the second approach, which nudges the interpretation away from the extensive approach toward the restrictive one. In good faith, the Authority shall never jeopardize the efficient implementation and operation of the Convention by neglecting the functions of the CLCS. "Even before" means, in fact, the preexistence of a submission to the CLCS. The Authority merely suggests that said sovereign rights do not depend on the result of this procedure.

Technical Study no. 5 concludes:

> *In other words, the extraction of resources from the OCS (which would in turn trigger the implementation of Article 82) is not contingent on the delineation of the outer limits of the continental shelf beyond 200M.*

The procedure of "*delineation of the outer limits...*" can only be performed by a submission to the CLCS. The Authority refers to the non-dependency ("*not contingent on*") between the extraction of resources and delineation of the exterior limit of the continental shelf beyond 200 nm, but naturally in due course of a submission to the CLCS. If the contrary were admitted "ad argumentandum tantum", the Authority would be understood to be neglecting the functions of the CLCS, which is an absurd conclusion in the light of the systemic interpretation of the Convention.

It is relevant to note that paragraph 2.2.1 of the Authority's Technical Study no. 5 does not question the sovereign rights over the continental shelf. As a matter of fact, the Authority does confirm its powers and functions in relation to Article 82, seeing as the exploitation of the continental shelf's mineral resources will correspond to the payment and contributions to the Authority, with no need for managing any contract, for instance, and so incurring lower costs and yielding higher benefits to be distributed among all States.

The strength of this approach lies in the extensive interpretation of Article 77 (3), making unnecessary any occupation, effective or notional, or any express

proclamation in order to exercise sovereign rights over the continental shelf. The continental shelf is considered single, and no questioning as yet arises over this jurisprudential and doctrinal understanding.

The weakness of that approach lies in the abstraction of the concept of Article 77 (3). It is not possible, in a geological, physical, or geographical sense, to exercise those sovereign rights effectively unless they are the object of a submission to the CLCS. The law is applicable over a space. But which space? The lack of certainty and predictability on the exercising of the sovereign rights is only redressed by a submission to the CLCS.

Nevertheless, that abstraction can be seen as one of the strongest points of this extensive interpretation, as far as said sovereign rights exist "ipso facto" and "ab initio" over the continental shelf. And then the "tabula rasa" effects prevail. And that's that.

The extensive interpretation of Article 77 in relation to Article 76 of the Convention leads one to conclude that, while no declaration is needed for the exercise of sovereign rights, it is not enough in itself to prevent disputes, a decision that is inserted in the political and strategic aspects of such rights.

The extensive interpretation does not attend the coastal State's legal, political and strategic interests in the field of dispute and risk prevention, merely the Authority's interest regarding Article 82 and Annex III to the Convention, and also the interests of those states not intending to sign the Convention, or even those wanting to taste the Convention in slices under the argument of a precedent customary international law.

In this sense, it is fair to declare that our reservation in relation to this extensive interpretation lies on the legal effect of silence as set out in Article 77 (3). Hoping to prevent disputes and secure sovereign rights by fulfilling the provisions of the Convention is a trap for coastal States acting in good faith.

According to this extensive interpretation the silence does not harm the sovereign rights over the resources of the continental shelf, but it does affect the exercise of the Authority's powers and functions and, consequently, the interests of the coastal State's sovereign rights over the continental shelf beyond 200 nm. The silence does not allow us to identify which space (polygon) and, consequently, over what resources those rights fall, whilst allowing other states to apply for reservation of areas to the Authority on what will be (or already is) the continental shelf of a coastal State beyond 200 nm.

When it comes to legal, political and strategic aspects, only a submission to the CLCS can manage the risk of a maritime dispute .

2.1. Practical effects and risk management

The practical – legal, political and strategic — effects of an extensive interpretation of Articles 76 and 77 may be described as follows:

a) Grey areas: if a submission is not a prerequisite for the exercise of sovereign rights, the declaration of entitlement over the continental shelf becomes a matter of exercise of power by a coastal State rather than the fulfillment of a primary obligation as set out in the Convention. Thus, Article 76 and Annex II of the Convention are rendered "dead letter" provisions.

b) Disputes: any coastal State can take over any space in the Area it considers its continental shelf merely by issuing a domestic law, which is against the Convention and also against general International Law.

c) Real: No right can be exercised "in abstracto" (abstractly). The sovereign rights are to be performed in a geographical, geological, physical and legal sense "in concreto" (concretely). No right can be exercised nowhere.

d) Non-signatory states: the extensive interpretation creates a paradox in favor of non-signatory states, and consequently, against the state parties of the Convention. It jeopardizes the efficient implementation and operation of the Convention and makes the Convention "tabula rasa".

e) Area: the submission of a work plan to the Authority is a prerequisite for prospecting, exploring or exploiting the Area as set out in Article 153 (3) of the Convention. The performance of sovereign rights outlined in Article 77 (3) over a non-recommended continental shelf beyond 200 nm, or in the absence of a submission, infringes the powers and functions of the Authority and the CLCS.

These practical considerations lead us to acknowledge the strategic relevance of risk management over the coastal State′s interest in the continental shelf beyond 200 nm. What risks are there?

In a non-hierarchical order, those risks may include:

Risk #1: coastal State A is surveying, perhaps in secrecy, data and information to be submitted to the CLCS in accordance with Article 76 and Annex II of the Convention. In the meantime, State B presents a work plan to the Authority on the same area or part thereof.

Risk #2: coastal State A submits to the CLCS an outer limit (polygon) for which a work plan or a contract already exists between the Authority and State B. This means State B anticipated the submission of coastal State A, and State A will now have to deal with the legal, political and strategic risks of the situation.

How should a state manage this risk of maritime dispute? Firstly, by managing the time of preparation for submission. Independently of a restrictive or extensive interpretation about Articles 76 and 77 of the Convention, only a submission to the CLCS can lead to the delineation of the outer limit of the continental shelf beyond 200 nm. Thus, timing it properly can help avoid risks; the "time" factor is extremely relevant in this aspect.

It is senseless – especially from a political and strategic point of view – to postpone a submission because data and information is still incomplete, especially when it can be supplemented over the due course of CLCS analysis. The application of a submission is highly recommended at the earliest possible opportunity. The number of submissions, preliminary information, and the possibility of endless partial or revised submissions have turned the CLCS timetable into an open-ended exercise of futurology, with no foreseeable end date. Otherwise, a limited period of 10 years is fixed for exercising this right of submission[343]. A deadline of that nature is to preserve third-party rights, not those of the coastal State, in this case, humankind's rights over the Area and its resources as set out in Article 136 of the Convention.

Secondly, risk can be mitigated by analyzing the chances of a submission's success, especially under the "*test of appurtenance*". There is no sense in presenting a submission to the CLCS that has little chance of meeting the provisions of Article 76 (4) to (8), unless the coastal State intends to exercise sovereign rights over a polygon beyond 200 nm by abusing the right to make revised or new submissions to the CLCS in bad faith.

From the coastal State's legal, political and strategic perspectives, only a submission to the CLCS would completely eradicate all doubt about its

343 The State Parties understood that the basic documentation necessary for the proposal to be presented by the coastal States was complete only on May 05, 1999, with the publication of "Scientific and Technical Guidelines of the Commission on the Limits of the Continental Shelf" (CLCS/11, 1999). Accepting the UNCLOS prior to that date, the State Parties decided that, under Article 4 Annex II, the limitation would be 10 years from that date, ending on May 12th, 2009 (SPLOS/72, 2001). For the State Parties for whom the UNCLOS was accepted after May 13th, 2009, such as Denmark, the limitation remains 10 years from that date. For instance, the same will occur with the United States of America when it ratifies UNCLOS.

interests and sovereign rights over its continental shelf, whilst also satisfying article 76 (4) and (9) and Annex II to the Convention, and allowing the Authority to perform its powers and functions by denying approval for work plans for the same polygon as described in the CLCS submission.

3. The restrictive interpretation of Articles 76 and 77 of the Convention, their effects and practical consequences

The restrictive interpretation of articles 76 and 77 leads to the requirement of a submission to the CLCS as a prerequisite for exercising sovereign rights beyond 200 nm. Though interrelated, the legal nature of the right to establish the outer limit of the continental shelf beyond the 200 nm mark is distinct from sovereign rights over the continental shelf.

In accordance with Article 76, the right to establish the outer limit of the continental shelf beyond 200 nm is based on the coastal State's entitlement over the continental shelf as a natural prolongation of its land territory to the outer edge of the continental margin. It is a subjective right, the fruition of which depends on a positive action ("in concreto") from the coastal State. This subjective right is performed by the fulfillment of the primary obligation set out in Article 76 (8).

Following a restrictive interpretation, the submission to the CLCS is a prerequisite for the establishment of the outer limit of the continental shelf beyond 200 nm and, therefore, for the exercise of sovereign rights over the resources contained in that polygonal space. The entitlement over the natural prolongation of the land territory is the very ground for this right.

Yet, restrictively, the sovereign rights provided for under Article 77 are substantive or material rights, defined "in abstracto", and, therefore, do not depend on effective or notional occupation of the continental shelf or any express proclamation. It derives from the entitlement, which does not need to be constituted as it exists "ipso facto" and "ab initio", but does have to be declared by the CLCS in response to the coastal State's primary obligation to submit the outer limit in accordance with Article 76 and Annex II of the Convention.

This is what the ICJ named "notion of appurtenance", in the sense of "belonging", "being a part of". The same word "appurtenance" is used by the CLCS in the Scientific and Technical Guidelines (CLCS/11, 1999) to

determine the entitlement of the coastal State over the continental shelf as a natural prolongation of its land territory to the outer edge of the continental margin.

On this matter, the sovereign rights are substantive or material rights that exist "ipso facto" and "ab initio", with "erga omnes" effect, as provided for under Article 76 (8). That is why its existence can be declared, but not constituted[344]. This is the legal nature of a submission to the CLCS: declarative, but not constitutive.

The expression "ipso facto" means "by the fact itself", "as a mandatory consequence of the fact", in this case, as a consequence of the continental shelf being the natural prolongation of the land territory.

The expression "ab initio" means "since the beginning". Once the entitlement is submitted for CLCS analysis, the coastal State is entitled to exercise its sovereign rights, and consequently to perform its obligations, over the continental shelf in its entirety. In the field of diplomatic negotiations, for instance, the "ab initio" clause will possibly inspire Angola to negotiate with the Democratic Republic of Congo (DRC) on an agreement to ensure the continuity of highly-productive Angolan oil platforms located in the overlapping area submitted by both States to the CLCS[345].

Under a restrictive interpretation those sovereign rights over the continental shelf cannot subsist "in abstracto", or be solely oriented by the discretion of coastal States in declaring them unilaterally. The only continental shelf established under a conventional framework is the one provided for under Article 76 (1), deriving from a submission to the CLCS as a consequence of the fulfillment of a primary obligation of the coastal State.

Furthermore, and still from a restrictive approach, there should not be sovereign rights (material rights) without the exercise of the subjective right as set out in Article 76: the continental shelf (polygon) beyond 200 nm neither exists nor becomes final and binding without the exercise of that subjective right.

It is only an apparent conflict of conventional norms that is solved by the systemic interpretation of the Convention. The performance of the

344 "Its existence can be declared (and many States have done this) but does not need to be constituted." *North Sea Continental Shelf Case*, [19].

345 Angola Executive Summary of Submission, 6 December 2013; Democratic Republic of the Congo Preliminary Information, 11 May 1999 are available on the CLCS website.

subjective right set out in Article 76, which establishes a non-contentious and a non-contradictory procedure by the CLCS, allows for the declaration of entitlement to the continental shelf. The exercise of such a subjective right (a procedural right) is based on the primary obligation of the coastal State to submit to the CLCS its outer limit as established in accordance with Article 76. Only a submission to the CLCS can work as a legal trigger to the effective exercise of sovereign rights as set out in Articles 77 and 82.

3.1. Practical effects and risk management

The restrictive interpretation of Articles 76 and 77 of the Convention indicates that a submission to the CLCS is a prerequisite for the establishment of the outer limit of the continental shelf beyond 200 nm.

The submission materializes an abstract legal concept, in a physical, geographical, geological sense, in a new substantive legal act that allows the effective exercise of the sovereign rights in time (with a starting date – "ab initio") and over a space (polygon – "ipso facto"), as well as its rights and obligations, grounded on the legal regimen of the continental shelf.

It also allows the Authority to exercise its powers and functions as set out in Article 82 and Annex III of the Convention, as well as preventing disputes by allowing the Authority to refrain from analyzing new work plans and contracts within the Area, especially over polygons described in submissions to the CLCS. The Authority cannot perform its powers and functions related to the prospection, exploitation and exploration of natural resources over a polygon under CLCS analysis as set out in Article 134 (4) of the Convention.

4. Final considerations

The objective of this study is to identify the effects and practical consequences of the systematic interpretation of the Convention by applying the methods of extensive and restrictive interpretation to Articles 76 and 77, having in focus the legal, political and strategic aspects of the CLCS submission.

Additionally, some practical advantages can be identified in a submission to the CLCS based on Article 76 in relation to the protected silence set out in Article 77, considering their legal, political and strategic aspects.

The legal aspect indicates that: a) a submission to the CLCS provides clarity, certainty and predictability to the legal interests, rights and duties of the costal State over the continental shelf beyond 200 nm; b) Article 8 of Annex

II to the Convention allows the coastal State to present partial, new or revised submissions, should the coastal State disagree with the recommendations of the CLCS to the infinite. By adopting an extensive interpretation of Article 77, this mechanism makes it possible to endlessly perform sovereign rights over the continental shelf beyond 200 nm, or at least while the submission is under analysis by the CLCS. This approach does not demand the admissibility of the submission under the test of appurtenance.

The political aspect indicates: a) The need for a submission in order to exercise sovereign rights over the continental shelf beyond 200 nm prevents unilateral acts by States that did not satisfy the test of appurtenance and contributes to risk management; b) The submission to the CLCS is not a contradictory process, permitting the CLCS to exercise its collateral dispute prevention function , with practical effects over the implementation of Article 77.

Finally, the strategic aspect allows the coastal State to prevent the exercise of powers and functions of the Authority and also the exercise of interests and/or sovereign rights by third-party States over the same polygon still under surveying or already submitted to the CLCS.

5

INTERNATIONAL ENVIRONMENTAL LAW: NEW APPROACHES

Fernando Rei

I. Introduction

The international agenda has been increasingly marked by certain instability in what regards the accomplishment of results. Such characteristic is a consequence of the nature of the international environment itself, and the complexity of international relations in a setting composed of actors undergoing continuous transformation, which the Law cannot ignore.

Moving on with this agenda, or putting it into effect requires and delineates the pillars for a global governance model that calls for discussion and cooperation between social and political actors, as well as new institutional arrangements that coordinate and regulate transactions within and across the borders of the economic system, including new public and private international actors.

Assessing these global issues get more and more complicated and intricate as they arise in a context of a world that has long been problematic where

attempts to solve real problems in an isolated fashion are inadequate, and as this biased and individualistic attitude is equivalent to confusing the symptoms of the disease with its own causes.

At the end of the past century, a phenomenon as central as the Cold War ceased to exist without being predicted by scholars of any school of thought, and in its wake, researchers and analysts started to focus their attention on a wide range of topics. These days, it is quite clear that such phenomena are related to complex changes and are inter-related in terms of technology, production and trade structure, financial flows, and safety and power relationships.

The society has become postmodern. The tension and complexity that exists between technology, production, consumption, and the protection of the environment have aggravated. It is actually in this context that Canotilho (2010, pp. 21-22) notes that there has been a – spatial-temporal– transition from the first to the second generation of ecological-environmental issues.

The failure of the UN Conference on Sustainable Development, also known as Rio+20, indicates that the structure and dynamics of the power relations in the contemporary world, particularly in the first years of the 21st century, are less cooperative and less marked by unity of interests than those observed in the last decade of the previous century, post Rio-92 (Rei 2012, p.45). In fact, the Summit was unable to innovate so to adapt the global institutions to the evidences of planetary degradation and make them converge around making decisions towards the low-carbon, green economy, and to a society more and more vulnerable to abstract endangerments, beyond hazards (Beck 2010, p. 10).

As noted by Dupuy & Viñuales (2015, p. 21), 'yet, the environment-development equation remains unresolved.' This failure is not limited to the Rio+20, but it also suggests that, in the power relations of the contemporary world, there is not only less multilateral cooperation but also less room for paradigm changes and more possibilities for new (and well-known) confrontations, even in social and political contexts whose assessment is quite delicate, such as that of the Syrian society as well as the refugees in Europe. The latter, in particular, along with the immeasurable effects the United Kingdom - UK withdrawal from the European Union - EU shall produce.

If we add to this scenario of conflicts and regional crises the complexity of

new problems facing the international society, the most likely conclusion seems to be that of an international society which is really at risk as a result of insufficient collaboration, cooperation, solidarity, and budget. After all, recent geopolitical developments, such as the Middle East's refugee crisis and the British withdrawal from the European Union, are complicating government budgets and agendas.

On the other hand, it is important to point out that this world, despite all the conflicts and difficulties, is at the same time more dependent on the cooperation between States and other actors in the International Society context to effectively face and assess these issues. After all, the level of well-being enjoyed by societies nowadays depends essentially and jointly on the many ways the States and other institutions interact and cooperate in the international sphere. However, there is increasing concern about the growth of conservative political forces that do not share this view for cooperation and interaction between the States.

At the same time it makes the world more interdependent, the need for cooperation actions makes it more monitored if compared to the past, confirming a new power logic in the international relations. Environmental issues as a whole, as well as those pertaining to human rights, finance, trade, internet, and others, can only be met with satisfactory solutions if these are negotiated and regulated by the group of States that discusses interests using methods more efficient than diplomatic conferences, without disregarding the role played by the new actors in the international setting.

Global environmental issues such as the loss of marine biodiversity and climate change have distinguishing characteristics: they adhere to ecosystems, and not to political boundaries (Setzer 2013, p. 17). Moreover, they have 'multiple interdependent causes and need coordinated forms of social organization and institutions for their effective resolution' (Andonova & Mitchell 2010, p. 526).

And, naturally, this new problematic had, and has its effects on the structure and dynamics of international law, where new areas of legal practice are consolidated seeking the renovation of the bases of the International Order, which is something required by this historical momentum, for the old bases cannot prevail in the construction of this new millennium.

As pointed out by Uribe & Cárdenas (2010, p. 35), new international environmental challenges call for the adoption of new and more inclusive

perspectives whose clear objective is to allow the law to respond to the various global issues facing it in an effective and comprehensive manner. However, this is not exactly how the process works.

II. International Environmental Law

The international environmental law is a new and dynamic area of law that has been developed on the evolution (and deficiencies) of the international law of the environment, and which is slowly becoming an independent 'branch' of the legal science, because it represents a distinct, specific set of rules and principles which address the relations of the subjects of the international law and the new international actors with the global sustainability agenda through the logic of building open, specific international regimes with the common purpose of protecting and managing the environment, and also committed to finding solutions.

The concept of international environmental law rises from the limitations of the international law of the environment, which is overly attached to international legal systems; the former presupposes a commitment to, and larger influence of environmental law rather than international law in its structuring and working logic, as well as a larger influence of the scientific and technological substrate underlying the complex global environmental issues. Thus, the international environmental law is based on a legal system of interdisciplinary nature aimed at regulating the coexistence, cooperation, and interdependence relations, whether institutionalized or not, among the several international actors whose purpose is the international protection of the environment. Among Latin authors, namely Latin-American, the new concept is noticeable because the difference between branches is identifiable in the terminology, which is not so visible in the English language (*International Environmental Law*, *Modern International Environmental Law* and *International Law of the Environment*), where authors address this development by means of a new institutionalization of the international regimes for environmental protection (Young 1994; Beyerlin & Maurauhn 2012), or go even further abandoning the specificity of the environmental problematic, conceptualizing this new branch of the legal system as the sourcing of an international sustainable development law (Cordonier Segger & Khalfan 2004, p. xxi).

The international environmental law ends up being the result of processes and needs that would be the foundations of what some scholars call contemporary international law, in which historical collective concerns play a major role, justifying the need to make normative commitments that apply at a global level. However, this is not exactly the way the States face the risks and threats posed by complex issues permeating our daily life, which in one way or the other concern all States, including, of course, the issues on the international sustainability agenda as well as new issues relating to international peace and safety.

The international climate change regime, the millennium development goals, the discussions on the transitions to a low-carbon economy, as well as the marine environment protection and ocean governance, are all major chapters of the recent history that have been transforming the relationships between States and the international actors as they review the logic of the programmatic sustainability agenda.

As it is known, the efforts to implement sustainable development models are centred in the rational use of natural resources and repositories, allowing everyone, as well as the future generations, to have access and enjoy their benefits. It is still a goal to be sought after, however inaccurate, no matter how much one endeavours to develop performance instruments, and which binds the obligations to do and not to do to the time factor, requiring short, medium, and long term actions. Most of these efforts are still concentrated on the negotiation of future actions which are extremely influenced by the specific interests of States, international organizations, and pressure groups. In this respect, the principles of international environmental law consolidated in the Rio Declaration reinforce the role played by the law to fight the influence of such interests, almost like an ethical requirement to develop a new understanding on how to work for a sustainable world. After all, this is a challenge to be faced by the international community with the active participation of the scientific community. In the end, we are talking about new rules for new production and consumption models, new rules for coexistence and cooperation, new power scenarios (Rei & Granziera 2015, p. 152).

1. International environmental law and the challenges facing it

Such facts revealed the need for the science of law to measure up to the challenges this postmodern society poses to it by widening its international

roles, which more and more possess a social, humanistic profile as it is concerned about the international protection of human rights and the new values of the international society to the establishment of principles for the sustainable development of all nations, contributing, this way, to the formulation of a new concept of safety, new peace requirements between States, a dynamic peace and continuous efforts to eliminate the still secular differences and disputes between States, as well as the promotion of a constructive dialog with new actors.

However, it happens that this reality, with the advent of postmodernity, keeps changing continuously and at the same time starts revealing the dependencies and the limitations of the law in the perception of the scientific knowledge and in the difficulty to face such challenges.

The *actors*, and not necessarily the *States*, play the main role in the constructive dialogue of this special branch of law; it refers to *monitoring* instead of *enforcement*, to *commitments* instead of *obligations*, to *nonconformity* instead of *violation*, and to *consequences* instead of *sanctions*. They are new values of a discipline that seeks to maximize the chances of success of a very complex global agenda.

Peace, stability, economic growth, and conservation of the planet's environmental conditions are assets whose supply, as well as enjoyment, still follows the same logic used for all public assets: the actors tend to be *free riders* when it comes to providing such assets. In this setting, the fundamental question to be answered within the next few years stands out, namely, to what extent are the States willing to take part in a joint effort for international conciliation and effective construction of an order which contemplates the demands for peace and development? Building consensus around this issue is very complicated; it means accepting rules for coexistence as well as bearing the costs of institutional arrangements that may be necessary (Sato 2003, p. 164).

Thus, the purpose of international environmental law, in tune with the international relations, is to transform the relationships between the States and other government and governance structures, fostering cooperation and coordination amongst them so that all can contribute, even if in different ways, but in harmony, to the improvement of the environment and the dignity of life in a transgenerational perspective.

The international environmental law seems to be a branch of law in which the use of the so-called *soft law* has become legitimate and much more

effective owing to the flexible and malleable dynamics of these instruments. The international environmental law is a more pragmatic, finalistic law that is concerned about the results, the achievement of the goals proposed. It is a law based on cooperation, which is one of the main features that sets it apart from the international law of the environment, because it is in the international environmental law that participation is extended, allowing non-state actors and subnational entities to take part in a governance process that seeks, by building consensuses, the solutions for the global issues common to several actors with distinct interests but which actively participate in the construction of plans, goals, and objectives to be accomplished by all stakeholders.

In this sense, it is believed that the result of relationships that require consensus between the stakeholders, even if not absolute, allows for greater cooperation to achieve the results expected, simply because it is not so strict, allowing for the adjustments necessary according to the changes resulting from uncertainty and risks. Therefore, the application of these instruments is believed to be very effective, mainly because the product of these interactions does not result from impositions, but, from consensuses, and yet, because the actors involved feel part of this governance process.

In fact, this functional and pragmatic perspective of the international environmental law is based on a mix of branches of law and other scientific contributions that coexist therein in a particular balance and intricate complexity. In this area of law the insertion of new actors in the multilateral normative and political processes and the contribution given by the scientific knowledge reinforce the role of *soft law* as the major tool to aid the adaptation of the classical international law to the new challenges facing the contemporary society, given the impossibility of moving forward in certain fields using binding rules (Rei & Granziera 2015, p. 153).

However, and in disagreement with this functional perspective, for most legal internationalists, States are the only international lawmakers, and treaties are the primary form of international law. In this sense, the international activity undertaken by subnational governments has no international legal relevance. Subnational government's capacity to act is grounded in local governmental authority, and their international initiatives and agreements lack the binding character of treaties or customary international law among nation-states. The initiatives they establish are, therefore, soft law, namely guidelines, recommendations, and other instruments which are not formally binding.

Consequently, subnational governments' international collaborative and coalition initiatives are limited by their voluntary nature (Setzer 2013, p. 124).

II. Environmental paradiplomacy

The 1980s saw the development of a concept to describe the international relations conducted by subnational, regional, local and non-State actors; the participation of such actors in the international arena was named paradiplomacy.

The participation of global corporations, NGOs, native peoples and subnational governments in the multilateral negotiation processes has long been promoting the extent and reach of the international debate on the role played by the new international actors (Keohane & Nye 1971; Risse-Kappen 1995). The insertion of these new actors in the international society, a pillar for the structuring of the subjects of the international environmental law, is directly associated with two remarkable phenomena of the 20th century: the globalization process and the rising of complex global environmental issues.

Since the 1990s, a number of local and regional governments around the world have started to engage in a real international or 'paradiplomatic' climate agenda. While the multilevel governance approach has advanced the examination of the actors and levels involved in climate governance, there is within this body of literature a limited consideration of the legal capacity of non-state actors to act across scales (Setzer 2015, p. 319).

The globalization phenomenon brought consequences along with it that have changed the international scenario; so currently, the social, environmental, economic and political issues reach beyond State boundaries, and they are no longer issues tackled solely at local level. In addition, the traditional way of solving problems at international level isn't enough in the context of sustainable development proposed by several international agencies, such as for instance, the climate change regime. The environmental problems have become cross-border issues, reaching beyond national territories, affecting other States, and, especially, the world as a whole. Such situation brings to this setting other actors that are claiming for voice and participation in the solution of the problems that affects them as well.

These actors, however lacking the typical elements of sovereignty, create new structures to face the problems and slowly gain the society's voluntary legitimacy stemming from the acknowledgement that to effectively face

global environmental issues we need cooperate and coordinate action by governance systems based on several levels and comprised by various state, infra-state, and non-governmental actors, where everyone performs a range of roles (Rei & Granziera 2015, p.155).

As noted by Hoffman (2011, p.66), subnational governments, corporations, and others have begun to see themselves as authoritative actors in general, and this translates into an enhanced inclination to see themselves as authoritative actors in climate change.

As the climate science keeps evolving, the universal and temporal aspects of climate changes are reinforced, either because their man-made causes are at the core of the current production and consumption mode and the expansion thereof on the planet, or because the seriousness of its impacts is already being felt at all levels of the society – from local to global –, and under different environmental, social, economic, and political nuances, with inaccurate adaptation scenarios.

In this context, it is impossible to ignore the rising of movements for 'climate justice' which are characterized by the fight against the more predictable and concrete risks of climate changes, given that, although everyone is subject to the risks, they end up charging a higher price from certain classes of the population than others because of their specific vulnerable conditions.

This is why facing it turns out to be a complex challenge that requires new solutions devised by the scientific thought, including the law.

Seen as a field where new paths for the international environmental law can be found, the international climate change regime, through the Paris Agreement, has just taken a great leap towards explicitly recognizing the importance of the role played by the new international actors to face this issue, as well as the relevance of the subnational and local dimensions. After all, it is no longer acceptable these days to defend solely the idea that a climate regime is defined by means of an international regime centred on a consensual agreement of all participating States. This way, the increasing participation of the subnational states in a multilateral regime, even if in parallel to the action of national states, allows to conclude that both the actors involved in the multilateral negotiations and the scales involved in the international law have been extended.

Although the vast majority of internationalists defend the idea that the State is still the main actor in the international society, the truth is that, given the level of technicality necessary to tackle environmental issues, as well as the

interdependence involving issues and monitoring of complex demands, the participation of the new international actors in the regimes is unquestionable, as noted by Uribe and Cárdenas (2010, p. 85).

And, as noted by Raustiala (2002, apud Setzer 2013,p. 124), the agreements and Protocols of Intentions entered by a subnational government with other governments or international organizations, although not legally binding, are frequently used to create a loose and adaptable framework in which information, ideas, and resources are shared. They are non-binding as a legal matter, but, at least from the point of view of many regulators, highly effective and far more flexible.

III. Global environmental governance

There is a diversity of perspectives and interpretations of the term governance; it implies a focus on systems of governing, means for 'authoritatively allocating resources and exercising control and co-ordination' (Rhodes 1996, p. 653), in which states are not necessarily the only or most significant actors.

Global environmental governance has been defined as 'the norms, rules, laws, expectation, and structures established to guide behavior according to a set of public purposes' (Andonova & Mitchell 2010, p. 257).

Rather than seeing government and governance as necessarily opposite, this interpretation suggests a continuum of systems of governing, in which state, subnational and local governments and private actors play a variety of roles. In this sense, governance 'has become one of the key themes in global environmental politics' (Paterson, Humphreys & Pettiford 2003, p. 1).

However, the traditional international way of facing global issues, still made official by means of consensual agreements signed between sovereign States, is increasingly and directly influenced by the internal and external interests of such States, particularly within a context of crescent, and mainly economic, interdependency (Leis & Viola 2008, p. 196).

Usually, these interests do not combine, in time, with the requirements and schedules to face global environmental issues, because while they have a short term horizon or present a mainly political-economic nature, the environmental issues require long term actions and a much broader view. Furthermore, as good examples of complex global issues, climate change and ocean governance reach beyond the state barriers and borders defined

by men, either because they constitute an ecological continuum that extends both within the spaces submitted to the States' sovereignty and beyond that, or because the actual impacts of such environmental issues are felt at infra-national levels of government, namely at the local urban structures. This is the case of the global-local duality of environmental issues which more and more inculcates a sense of responsibility for facing them to *all* levels of the social and political organization (Liftin 2000, p. 120).

As a consequence, the complexity for the formulation of a traditional international response, specially by means of international legal regimes, and the increasing and challenging need for practical and pragmatic actions to face global environmental issues have progressively legitimated the rising of new forms of authority.

Framed as problems of collective action between sovereign states, within traditional accounts of global environmental politics, the notion of the state as the primary arena of political power is changing and there have been new analyses of the changing nature of the state and its sovereignty.

As previously stated, despite lacking the typical elements of sovereignty, autonomy, and control, these new structures slowly gain the civil society's voluntary legitimacy stemming from the acknowledgement that to effectively face global environmental issues we need cooperate and coordinate action by governance systems based on several levels and comprised by various state, infra-state, and non-governmental actors, where everyone performs a range of roles, many times in a network. Characterized in network terms, there is increasing interest in the role of actors and institutions, which operate simultaneously across multiple scales (Bulkeley 2005, p. 879).

Thus, we hear about a new way of facing these challenges: through global environmental governance. According to Reed & Bruyneel (2010, p. 649), 'as environmental problems cross borders spatially (affecting multiple jurisdictions) and temporally (posing risks for the present and for future generations), they necessitate cooperation among nations and stakeholder groups in a form of global environmental governance.'

Moving on with this multilateral response, less rigid and structured, involves the discussion and action by multiple actors, because for the implementation of the global environmental governance the cooperation and negotiation require wider participation to build the possible consensus (Rei & Granziera 2015, p. 155).

As noted by Hoffmann (2011, p. 5) this discussion and action is something less familiar, messier, more diffuse and dynamic – in a word, *experimental*. This action reveals how cities, countries, provinces, regions, civil society, and corporations are responding to climate change irrespective of the *official* UN-sponsored negotiations and treaties.

It is therefore through global environmental governance that different forms, experiences, and levels of assessment of environmental issues start to coexist in a complementary fashion, rather than conflicting with each other. This way, it is possible to foster the advance of international regimes based on treaties that have been multilaterally signed, since they can be strengthened by the initiatives developed at transnational and infra-national levels and by actors which are not yet formally integral part of the international legal system.

Although they have been formally created as mechanisms to exchange information, techniques, practices, and experience about measures to face specific global issues, these transnational networks end up playing an increasing political role, especially when they act at the international sphere of negotiation in a coordinated fashion.

The participation, for instance, of subnational states in these transnational networks offers these actors, based on the experiences in their own territories, the potential to influence the decision-making process at international forums, besides conferring them an international personality (Happaerts 2010,p. 130). Good examples of this environmental governance are focused on the ways in which, through different networks, the rescaling of environmental problems and their solutions has taken place between territorially delimited arenas of governance.

Thus, there is a process of mutual influence, from which the international environmental law feeds. However, if it is a fact that these innovative aspects of the international regimes remain as development factors from the perspective of the legal science, there is still a range of elements the traditional jurist finds particular difficult to understand (Juste Ruiz 2012, p. 42). Or, as noted by other authors, the specificities of international environmental law reviewed so far constitute in many respects a *lex specialis* derogating from the rules of general international law otherwise applicable (Dupuy & Viñuales 2015, p. 45).

In this context, one cannot ignore the importance of the role the other actors of the international society have been playing in the structure thereof,

many of them sitting at Conferences of the Parties of Multilateral Treaties in the capacity of observers, developing a series of initiatives, many of them in network, that more and more question the sovereignty of the State in what regards the use of natural resources.

These strong connections of the international environmental law with the participation of new public and private international actors, and with the evolution of the scientific knowledge, which is the basis for some international regimes, influence the transformation of the traditional concept of sovereignty by including on it different perspectives, which has allowed the redefinition thereof. Sovereignty can no longer be categorically understood as the unlimited power exercised by a State over the natural resources within its territory. This power can be limited and, in many cases, made relative, when it goes against the common interest of the international society.

For this reason, the international environmental law is blamed by many legal minds to be extremely linked to the reality of the facts, to real politics, and too much subordinated to scientific knowledge and ecological laws. For those who join the line of critics, there is also the argument that it flies to high in its own idealism. And as noted by Liftin (2000, p. 142), 'we should be clear about the fact that the state does not lose legitimacy if it accepts the authority of science.'

No matter the approach, all of them suggest that the 'politics of scale' is a key element in understanding shifts in the nature of the state and its authority, and hence for the nature of environmental governance (Bulkeley 2005, p. 883).

However, this discussion, this debate, this censorship of the classical internationalists is not but the best face of its dynamism and commitment to results, which along these forty years after Stockholm has revealed an image of renewed vigour, making, whether they like it or not, the international law itself feed from it and come closer to the demands of the postmodern man, and the challenges facing the 21st century citizen.

IV. Concluding remarks

The purpose of this text when it discusses the challenges and the new approaches brought to global governance by international environmental law gets mixed with the addressing of the challenges facing the legal science to deal with the complex environmental issues of the 21st century. Thinking of a successful international environmental regulation is talking about an

effort to understand the need for the instrumental law to comply with its role to solve wide, complex issues that are typical of the construction of a sustainable society, which are inherent thereto and the reason itself for its formulation and existence. In other words, it is assuming the need to develop new looks, which see not only a law of principle and rules but start seeing a law of obligations, commitment, and actions that yield results.

The fact that the sustainability challenges have been losing priority on the current political agenda of the States, which are concentrated on overcoming other crises, added by the increasing awareness of these same States of their incapacity to face and assess the new complex issues alone, allows us to say that there is an opportunity for international acceptance that the global environmental legal relations are essentially multilateral relationships.

Therefore, it is equally possible to agree on a consensual participative law, namely in the already experienced exercise of the UN Framework Conventions, an innovative legal-instrumental mode to ground the bases for a consulting and normative work, of intermittent nature, which depends on and demands permanent updating.

So, it seems to be acceptable and legitimate to acknowledge a more and more consolidated basis for the so-called international environmental law, with its own regulatory characteristics, which manages to collaborate to the movement of knowledge and efforts to face new issues that call for quick, new, and effective solutions.

This movement that makes way for the participation of new actors – whether they be individuals, scientific societies, NGOs, indigenous or aboriginal peoples, multinational corporations, subnational, local government associations etc. –, together with the central States, in the processes for preparation and application of the rules will allow the continuity of the work of building awareness about common subject matters of the international environmental law, in the path to build a new legitimacy pact, centred on global environmental governance.

However, we must be aware that although the diversity of topics on the international agenda these days is much bigger and, in spite of all the advances achieved by the postmodern society in terms of communication technologies and globalization rhetoric, the agreement and synergy between States and the new international actors remain a challenge.

6

SOME ENVIRONMENTAL ASPECTS OF THE U.N. CONVENTION ON THE LAW OF THE SEA

Paulo Borba Casella

As part of a continent surrounded by oceans, Latin American States have contributed, since their beginning, to the development of the law of the sea. [. . .] So the UN concern with matters pertaining to the law of the sea was always followed or stimulated by Latin American governments, which contributed specifically to the recent and current codification procedure on these matters. Preceded by the Declaration of Santiago of 18 August 1952, and by decisions taken in regional meetings, such as those of Montevideo (May 1970), Lima (August 1970) and Santo Domingo (June 1972), the U.N. Convention on the Law of the Sea, negotiated at the third conference on this matter (1973-1982), was influenced by Latin American contributions. Vicente MAROTTA RANGEL (2012) [346]

The U.N. Convention on the Law of the Sea provides the legal framework for conserving biodiversity and protecting and preserving the marine environment. The general

346 V. MAROTTA RANGEL, *International Law, Regional Developments: Latin America* (in **The Max Planck Encyclopedia for Public International Law**, ed. R. WOLFRUM, Oxford: Univ. Press, 2012, vol. V, p. 940-954, quoted 34 at 947).

obligation to protect and preserve the marine environment is set forth in art. 192 […] and specified in art. 194(5) of the U. N. Convention on the Law of the Sea, which determines that the measures taken to prevent, reduce and control pollution of the marine environment 'shall include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life'. This obligation covers every kind of vulnerable marine ecosystem and species, wherever they are located. States are also bound by an obligation to co-operate on a global and regional basis for protecting and preserving the marine environment (art. 197 U. N. Convention on the Law of the Sea) and conserving and managing the high seas' living resources (arts. 117-118 U. N. Convention on the Law of the Sea). Sarah WOLF (2012)[347]

La globalisation des échanges est à l'origine d'une dépendance de nos sociétés vis-à-vis de la mer jamais connue jusqu'alors. Nos économies sont aujourd'hui si imbriquées les unes dans les autres que la moindre interruption d'un des axes d'approvisionnement peut immobiliser tout un secteur. Cyrille P. COUTAINSAIS (2016)[348]

A tribute for Vicente MAROTTA RANGEL for his relevant achievements both as an International Law professor and as Judge for almost two decades at the International Tribunal on the Law of the Seas (ITLOS) [349] is as timelier

347 Sarah WOLF, *Marine protected areas* (in **The Max Planck Encyclopedia for Public International Law**, 2012, vol. VI, p. 1056-1063, quoted at 14 p. 1059-1060).

348 Cyrille P. COUTANSAIS, **Une histoire des empires maritimes** (© 2013, Paris: CNRS Éd. – Coll. 'Biblis', 2016, 'conclusion', p. 179-181) further explains that: "Une nouvelle structuration de notre modèle productif qui métamorphose les usines en assembleurs de matières, brutes ou transformées, venues des quatre coins du monde. Le temps du modèle integré où l'on fabriquait sur une base régionale, tout au plus nationale, laisse place à une sous-traitance à dimension mondiale. Avantageux du point de vue de la réduction des coûts, ce système a aussi pour conséquence une perturbation de l'ensemble du cycle de production à la moindre rupture de charge. Maintenir ouvertes les routes du commerce maritime devient, dans cette configuration, vital."

349 The International Tribunal for the Law of the Sea (ITLOS) as a permanent international judicial body was established by article 287 of the United Nations Convention on the Law of the Sea (1982, in force since 1994) and Annex VI to the same Convention, which contains the Statute of the Tribunal. Pursuant to article 16 of the Statute, ITLOS adopted on 28 October 1997 the Rules of the Tribunal and on the same day the Guidelines concerning the preparation and presentation of cases before the Tribunal. Official inauguration of ITLOS took place on 18 October 1996. Since its inception, Brazil was represented at ITLOS: first by Vicente Marotta RANGEL (from 1996 until 2015) and lately by Antonio Paulo Cachapuz de MEDEIROS (2015 until his untimely death in September 2016).

as very much deserved. This is especially true and clear for the author, having known him for almost four decades and trying to cope with the challenge of being his successor to the same chair for Public International Law at the University of São Paulo (USP). I am grateful towards the editors of this *Festschrift*, for this opportunity.

Among many memories of V. MAROTTA RANGEL [350] allow me to recall that already as an undergraduate I have been distinguished by him, and was much honored when he invited me to informally join the audience to his graduate courses on Public International Law, among which stood, along the years, the International Law of the Sea. I must be thankful for such distinction, as he probably figured my youthful enthusiasm for International Law might bear some fruit in the future. This is part of the mission of a professor: to discover young talents and to help guide them into growing and maturing. I am grateful to him and happy for this opportunity to celebrate some of his achievements, as stated, both as an International Law Professor and thereafter also as a Judge at ITLOS, and for the almost twenty years of his tenure.

Every year, during the several years of the negotiation process of the future United Nations Convention on the Law of the Sea, from 1973 to 1982, Professor MAROTTA RANGEL would be absent from his undergraduate and graduate courses at USP Law School for some weeks, as he was due to be present at such negotiations, as member of the Brazilian delegation thereto. In 1982, the text of the U.N. Convention on the Law of the Seas was completed.

The United Nations Convention on the Law of the Sea (UNCLOS) is an outstanding achievement in the successful history of codification of

350 P. BORBA CASELLA, *Vicente Marotta Rangel – vida e obra – Direito internacional nas Arcadas* (São Paulo: Revista da Faculdade de Direito da Universidade de São Paulo, vol. 110, 2015, p. 19-53, quoted from '*Abstract*'): "The review of the evolution of teaching of International Law at the 'Arcadas', as the Law School of the University of São Paulo is well-known, has a relevant boundary due to the contribution of Vicente MAROTTA RANGEL for decades, which comprehends a crucial period during which, due to the influence of the armed forces rule, the teaching of International law became an optional subject in many law courses in the entire country. However, thanks to him, it was never interrupted in this Law School. The paper examines his long, fruitful life and the main publications of this master, who reached 90 years in March 2014, and received in December of the same year an International colloquium on the Law of the Sea as a tribute."

International Law of past century. [351] Notwithstanding the relevance of the achievement, the full implementation of same stretches into this century. The acknowledgment of the wide-ranging relevance of UNCLOS is due not only for its extension and complexity as a treaty, setting uniform substantive international law for the seas, with the institution of the International Tribunal on the Law of the Sea – ITLOS and its chambers, as well as its other devices for the peaceful settlement of disputes, and moreso for the extension and the complexity of the contents, as the legal regulation of the seas has always been a relevant matter for international law. [352]

The UNCLOS is a wide-ranging multilateral treaty. [353] The Convention deals extensively with the legal regime of the seas, in general, well beyond the environmental aspects, as above-mentioned. The UNCLOS not only replaced the former elementary rules, provided by the Geneva Conventions on the Law of the Sea of 1958, but created a rather complex international legal regime, albeit same lacked direct implementation devices, due to the need of eventual development of the more specific and topical regulations.

The development of the law of the seas goes very far back in History. [354]

351 Executed at Montego Bay 10 December 1982, internationally in force since 16 November 1994, the Convention was approved, in Brazil, by Legislative Decree nr. 5, dated 9 November 1987, ratified by Brazil 22 December 1988, published by Decree nr. 1530, dated 22 June 1995.

352 H. ACCIOLY – G. E. do NASCIMENTO E SILVA – P. BORBA CASELLA, **Manual de direito internacional público** (São Paulo: Saraiva, 22nd ed., 2016, esp. items 2.3.8 and 6.4, p. 230 and 606-642); Benedetto CONFORTI, **Il regime giuridico dei mari: contributo alla ricostruzione dei principi generali** (Napoli: Eugenio Jovene, 1957); Vicente MAROTTA RANGEL, **Le plateau continental dans la Convention de 1982 sur le droit de la mer** (Recueil des cours de l'académie de droit international – RCADI, 1985, t. 194, p. 269-428); V. MAROTTA RANGEL, **Natureza jurídica e delimitação do mar territorial** (São Paulo: RT, 2. ed., rev. e ampliada, 1970); Tullio SCOVAZZI, **The evolution of the international law of the sea: new issues, new challenges** (RCADI, 2000, t. 286, p. 39-243); Prosper WEIL, **Perspectives du droit de la delimitation maritime** (Paris: Pedone, 1988).

353 Executed at Montego Bay 10 December 1982, internationally in force since 16 November 1994. In Brazil, approved by Legislative Decree nr. 5, dated 9 November 1987, ratified by Brazil 22 December 1988, published by Decree nr. 1530, dated 22 June 1995.

354 As noted by Cyrille P. COUTANSAIS, **Une histoire des empires maritimes** (© 2013, Paris: CNRS Éd. – Coll. 'Biblis', 2016, 'conclusion', p. 179-181): "Maîtriser les océans offre en premier lieu la possibilité de monopoliser les réseaux d'échanges les plus lucratifs ou stratégiques. La volonté de Gênes de maîtriser les circuits de l'or

The early 17th century controversy about the open sea – *mare liberum* – or closed sea – *mare clausum* – with highlights provided by Hugo GROTIUS on the one side, and John SELDEN and Serafim de FREITAS on the other side show how far and wide it goes. [355] Just more than another hundred years later, Cornelius van BYNKERSHOEK in the middle of the 18th century still remained concerned, evidencing the lasting features of such a topic. [356]

Since the founding fathers of modern International law wrote on topics connected with the law of the sea and its intended more or less opened or closed legal regime the matter has remained an issue, and was the scope of several successive conferences.[357] The core issues, however, remained

rejoint celle des États-Unis, placés aujourd'hui au coeur d'un réseau intercontinental de câbbles sous-marins. À l'heure des *data centers* et du *cloud computing*, la quasi-totalité des câbles transatlantiques mais surtout transpacifiques convergent vers Washington. Autre constante: la nécessité d'assurer une libre circulation des marchandises. Tout comme la liberté des mers était primordiale à Rome et à Byzance pour leur approvisionnement en blé, elle l'est aujourd'hui pour nos hydrocabures."

355 P. BORBA CASELLA, **Direito internacional no tempo antigo** (São Paulo: Atlas, 2012, chapter II, '*tempo e discurso no direito internacional*', esp. 2.1, '*a controvérsia entre Hugo GRÓCIO e Serafim de FREITAS*', p. 107-127); P. BORBA CASELLA, **Direito internacional no tempo moderno de Suarez a Grócio** (São Paulo: Atlas, 2014, esp. chapter XVIII, '*Hugo GRÓCIO (1583-1645)*', p. 309-587).

356 P. BORBA CASELLA, **Direito internacional no tempo clássico** (São Paulo: Atlas, 2015, esp. chapter XXI, '*Cornelius van BYNKERSHOEK (1673-1743)*', p. 573-619).

357 Shabtai ROSENNE and Julia GEBHARD, *Conferences on the Law of the Sea* (in **The Max Planck Encyclopedia for Public International Law**, ed. R. WOLFRUM, Oxford: Univ. Press, 2012, vol. II, p. 623-636) mention how up to 1914, the conferences were concerned with the law of warfare at sea, both as between belligerents and between belligerents and neutrals. Thus at the Paris Congress of 1856, was adopted the Declaration of Paris respecting Maritime law (signed 16 April 1856), one of the major sources for prize law rules. The Hague Conference of 1899 adopted the International Convention for Adapting to Maritime Warfare the Principles of the Geneva Convention of 22 August 1864. The Hague Conference of 1907 adopted several conventions on the matter: Convention relative to the status of Enemy merchant ships at the Outbreak of Hostilities (signed 18 October 1907, in force 26 January 1910), Convention relative to the conversion of Merchant ships into Warships (signed 18 October 1907, in force 26 January 1910), Convention related to the laying of Automatic submarine contact mines (signed 18 October 1907, in force 26 January 1910), Convention respecting the bombardment by Naval forces in time of war (signed 18 October 1907, in force 26 January 1910), Convention for the adaptation of principles of the Geneva Convention to Maritime war (signed 18 October 1907, in force 26 January 1910), Convention relative to certain restrictions on the Right of capture in Maritime war (signed 18 October 1907, in force 26 January 1910), Convention for the establishment of an International

open until the Third United Nations Conference on the Law of the Sea, which extended from December 1973 to December 1982, whereby was completed the 1982 Convention. Twelve more years were required, before same could enter into force, in 1994. Since then, the efforts aiming at the implementation of UNCLOS remain in the international agenda. To such implementation certainly ITLOS has given a prominent contribution and is expected to go on providing relevant case law.

The wide scope of matters and controversies related to the legal regulation of the marine environment are not limited to boundaries[358] and to the

prize court (signed 18 October 1907) and the Convention respecting the rights and duties of neutral powers in Maritime war (signed 18 October 1907). The London Naval Conference (1908 and 1909) was "the first diplomatic conference devoted exclusively to one aspect of the law of the sea as part of the *jus in bello* of the time", and led to the adoption of the Declaration relative to maritime law in the Final Protocol of the Naval Conference (signed 26 February 1909), "even though the Declaration of London never entered into force, it was applied by the principal naval belligerents in World war I up to 1916". The League of Nations sponsored The Hague codification conference (1930) attended by forty-seven member states and others invited by the League Council, such as the USA and an observer delegation from the USSR, which succeeded in recording a measure of agreement on some of the major aspects of the law of the territorial sea, including its status and the right of 'innocent passage'. The 1958 (First) United Nations Conference on the Law of the Sea – UNCLOS was the first codification conference convened by the UN to consummate a codification topic on the basis of draft articles prepared by the ILC. The 1960 (Second) UNCLOS was convened 'for the purpose of considering further the question of the breadth of the territorial sea and fishery limits'.

358 CIJ, **Différend frontalier terrestre, insulaire et maritime** (El Salvador c. Honduras, Nicaragua intervenant; arrêt du 11 septembre 1992 (fond)). See also the Guinea v. Guinea-Bissau Maritime Boundary Arbitration Award of 14 February 1985. On the case, see Tullio SCOVAZZI, *Maritime Boundary between Guinea and Guinea-Bissau Arbitration (Guinea v. Guinea-Bissau)* (in **The Max Planck Encyclopedia for Public International Law**, ed. R. WOLFRUM, Oxford: Univ. Press, 2012, vol. VI, p. 1069-1075). See also: T. SCOVAZZI, **The evolution of international law of the sea: new issues, new challenges** (RCADI, 2000, vol. 286, p. 39-243); T. SCOVAZZI, *Maritime Delimitation Cases before International Courts and Tribunals* (in **Encyclopedia**, 2012, vol. VI, p. 1102-1116); T. SCOVAZZI, *Maritime Boundary between Guinea-Bissau and Senegal Arbitration and Case (Guinea-Bissau v. Senegal)* (in **Encyclopedia**, 2012, vol. VI, p. 1075-1081); Maurice MENDELSON, *Maritime Delimitation and Territorial Questions between Qatar and Bahrein (Qatar v. Bahrein)* (in **Encyclopedia**, 2012, vol. VI, p. 1081-1085); Geir ULFSTEIN, *Maritime Delimitation between Greenland and Jan Mayen Case (Denmark v. Norway)* (in **Encyclopedia**, 2012, vol. VI, p. 1085-1091); Louise Angélique de LA FAYETTE, *Maritime Delimitation between Nicaragua and Honduras in the Caribbean Sea Case (Nicaragua v. Honduras)* (in **Encyclopedia**, 2012, vol. VI, p. 1091-1101);

exercise of jurisdiction, [359] but spread in a wide range, from the 'aquitorial sovereignty' on the territorial sea [360] to the rights ascribed to the Coastal State on the continental shelf. [361] In order to assess the relevance of the progress achieved, [362] we just have to compare the present picture with the

Laurent LUCCHINI, **L'état insulaire** (RCADI, 2000, vol. 285, p. 251-392).

359 Inter alia, see: Paul REUTER, *Une ligne unique de délimitation des espaces maritimes?* (in **Le développement de l'ordre juridique international: écrits de droit international** (Paris: Economica, 1995, p. 619-636, originally published in Mélanges Georges PERRIN, Lausanne: Payot Diffusion, 1984); Dolliver NELSON, *Maritime Jurisdiction* (in **The Max Planck Encyclopedia for Public International Law**, 2012, vol. VI, p. 1116-1128).

360 According to art. 2 of the UN Convention on the Law of the Sea, in the territorial sea, the coastal State exercises sovereignty extending to the air space over the territorial sea as well as to its bed and subsoil. See also: Gilbert C. GIDEL, **La mer territoriale et la zone contiguë** (RCADI, 1934, vol. 48, p. 133-278); W Graf VITZTHUM, *Aquitoriale Souveränität: zum Rechtsstatus von Küstenmeer und Archipelgewässern* (in **Völkerrecht als Weltordnung** – Festschrift für Christian Tomuschat, ed. by P.-M. DUPUY, Kehl: Engel, 2006, p. 1067-1086); Sarah WOLF, *Territorial Sea* (in **The Max Planck Encyclopedia for Public International Law**, ed. R. WOLFRUM, Oxford: Univ. Press, 2012, vol. IX, p. 871-884, quoted 2 p. 872); Sarah WOLF, *Marine protected areas* (in **Encyclopedia**, 2012, vol. VI, p. 1056-1063); Tullio TREVES, *Marine Scientific Research* (in **Encyclopedia**, 2012, vol. VI, p. 1063-1069).

361 Virginie J. M. TASSIN, **Les défis de l'extension du plateau continental** – La consécration d'un nouveau rapport de l'État à son territoire (préfaces de S. B. KAYE et J.-M. SOREL, Paris: Pedone / Monaco: Institut du droit économique de la mer – Prix Indemer 2011, impr. 2013, quoted p. 33): "L'apparition et l'évolution de la zone du plateau continental sont le reflet des profondes transformations de la société internationale. Cette evolution est tout à fait singulière puisqu'elle a créée une différentiation, au sein d'un même régime juridique, de deux différents plateaux, l'un en déçà de 200 milles marins et l'autre au-delà". See also: Peter-Tobias STOLL, *Continental shelf* (in **The Max Planck Encyclopedia for Public International Law**, ed. R. WOLFRUM, Oxford: Univ. Press, 2012, vol. II, p. 719-728); Alex G. Oude ELFERINK, *Continental Shelf Arbitration (France v. United Kingdom)* (in **Encyclopedia**, 2012, vol. II, p. 728-732); Alex G. Oude ELFERINK, *Continental Shelf Case (Libyan Arab Jamahiriya v. Malta)* (in **Encyclopedia**, 2012, vol. II, p. 732-736); Alex G. Oude ELFERINK, *Continental Shelf, Commission on the Limits of the* (in **Encyclopedia**, 2012, vol. II, p. 736-742).

362 Richard MEESE, *Le plateau continental étendu africain devant la Commission des limites du plateau continental* (in **Liber amicorum Raymond Ranjeva** – L'Afrique et le droit international: variations sur l'organisation internationale / Africa and International Law: Reflections on the international organization, dir. de / ed. by Maurice KAMGA & Makane Moïse MBENGUE, Paris: Pedone, 2013, p. 549-567, 'conclusion' at 565-566): "Le bilan des revendications relatives au plateau continental africain étendu déposées à la

situation existing prior to the UNCLOS.

In the long and complex process of building the International law of the sea, as it stands today, the process included the search for what could be considered as 'natural law' in these matters, meaning inherent norms that are meant to enable the relevant legal institution to act justly and meaningfully. An example of such 'legal construction' is what the ICJ did when same decided the **North Sea Continental Shelf Cases** (1969), [363] addressing the issue of what could be the 'natural law' of the continental shelf: "the ICJ did accept that natural law can have play in such a role to disputes" and then identified that "the real issue" was "whether the basic concept of the continental shelf required that equidistance should operate in all circumstances and prohibited the allocation of the shelf areas to the relevant State unless they were closer to it". [364] The lack of positive International law at the time rendered necessary

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CLPC à la fin 2011 apparaît extrêmement satisfaisant dans la mesure où la quasi-totalité des États africains qui bénéficient – sous réserve de l'examen de leurs demandes par la CLPC – d'un plateau continental au-delà de 200 M ont déposé une demande ou une information préliminaire augurant favorablement le dépôt d'une demande." […] "Les États africains qui ont déposé des informations préliminaires ont encore à oeuvrer pour préparer une demande qui passe avec succès le test d'appartenance. L'établissement de leur titre à un plateau continental prolongé et de ses limites extérieures est obéré par la difficulté de mobiliser les nécessaires moyens humains, techniques et financiers, ainsi que par les modalités d'examen et la charge de travail de la Commission qui est telle que de nombreuses futures demandes issues des informations préliminaires ne feront l'objet d'une recommendation que dans trente ou quarante ans, si ce n'est plus tard."

363 CIJ, **Plateau continental de la mer du Nord** (République fédérale d'Allemagne c. Danemark; République fédérale d'Allemagne c. Pays-Bas; arrêt du 20 février 1969 (fond)). See also Alex G. Oude ELFERINK, *North Sea Continental Shelf Cases* (in **Encyclopedia**, 2012, vol. vol. VII, p. 808-813 at 1): "were the first cases concerning the delimitation of maritime zones seaward of the territorial sea. More than ten cases have followed since then. […] The judgment of the ICJ in the *North Sea Continental Shelf Cases* looks in detail at the role of equidistance in the delimitation process and pronounces itself on the rules and principles applicable to the delimitation of the continental shelf as well as the factors to be taken into account. All these themes have figured to a greater or lesser extent in subsequent maritime delimitation cases."

364 Alexander ORAKHELASHVILI, *Natural Law and Justice* (in **The Max Planck Encyclopedia for Public International Law**, ed. R. WOLFRUM, Oxford: Univ. Press, 2012, vol. VII, p. 523-535, at 44-45, p. 531-2) notes that "the ICJ examined the natural law argument on its merits and rejected the method of equidistance while in principle approving that the argument based on notions such as inherent or natural right can potentially succeed if consistent with the nature of relevant legal provisions. Whatever

the arguments developed by the Court, [365] in order to avoid *non liquet*. [366] This is eloquent to show how much the International Law of the Sea has developed since then. [367]

Since Ancient times, the seas have been and remain relevant for trade, [368] as

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the merits of the ICJ's argument under the law of the sea, it must be acknowledged that it engaged with the natural law argument and examined it on its merits. Thereby the ICJ admitted that in principle cases in international law can be decided on the basis of natural law should the nature of relevant legal institutions require this."

365 A. ORAKHELASHVILI, *Natural Law and Justice* (in **Encyclopedia**, 2012, vol. VII, p. 523-535, at 43) further notes that "international environmental law contains some concepts that may in some way resemble natural law, such as solidarity. These concepts are however not precisely defined."

366 Gerald FITZMAURICE, *The problem of "non-liquet": prolegomena to a restatement (in* **La communauté internationale: mélanges offerts à Charles Rousseau**, Paris: Pédone, 1974, p. 89-112); Gerald FITZMAURICE, **The general principles of international law considered from the standpoint of the rule of law** (RCADI, 1957, t. 92, p. 1-228). On the issue of *non liquet*, as already noted by Georges RIPERT, **Les règles du droit civil applicables aux rapports internationaux** (RCADI, 1933, vol. 44, p. 565-664, quoted p. 574): "La Cour permanente de justice ne peut prononcer le *non liquet* ou refuser de juger sous le pretexte qu'elle ne trouve pas de règle applicable. Pour juger, elle est bien obligée de chercher la solution dans les principes du droit si elle ne la trouve pas ailleurs". See also Dionisio ANZILOTTI, **Cours de droit international** (originally publ. in Italian, 1912, translated into French by G. GIDEL and published in 1929, new edition, Paris: LDGJ – Panthéon-Assas, 1999).

367 The ICJ refrained from extending the delimitation line beyond 200 M in the *affaire du différend territorial et maritime entre le Nicaragua et le Honduras dans la mer des Caraïbes (Nicaragua c. Honduras)* (arrêt du 8 octobre 2007, CIJ-ICJ, **Recueil**, 2007, p. 90, § 319): "toute prétention relative à des droits sur le plateau continental au delà de 200 milles doit être conforme à l'article 76 de la CNUDM et examiné par la Commission des limites du plateau continental constituée en vertu de ce traité". See thereon also L. A. de LA FAYETTE, *Maritime Delimitation between Nicaragua and Honduras in the Caribbean Sea Case (Nicaragua v. Honduras)* (in **Encyclopedia**, 2012, vol. VI, p. 1091-1101).

368 Roger CROWLEY, **Conquerors** – How Portugal seized the Indian Ocean and forged the first global Empire (London: Faber & Faber, 2015); John RUSSELL-WOOD, **Histórias do Atlântico Português** (org. Ângela DOMINGUES & Denise A. Soares de MOURA, São Paulo: Ed. Unesp, 2014); François BELLEC, **Marchands au long cours** (Paris: Ed. du Chêne / Hachette, 2003); Guy SAUPIN, *L'ouverture de la route maritime de l'Océan Indien par le Portugal (1497-1503)* (in **Nouvelles routes maritimes** – Origines, évolutions et prospectives, "Actes du Colloque de Nantes – Journées Scientifiques de l'Université de Nantes 11-12 juin 2015", ed. by O. DELFOUR-SAMANA, C. LEBOEUF and G. PROUTIERE-MAULION, Paris: Pedone, 2016, p. 39-57) notes that the opening of the commercial sea route to the Indian Ocean by the

much as for war, [369] for supply of food as well as for other valuable resources. [370] Unfortunately the seas have also played and keep playing the role of the largest sewer and waste collector for humankind. [371]

Controversies about the sea, especially in connection with fisheries and other living maritime resources led to the formation of customary law based on the double assumption of 'free exploitation' and 'no national jurisdiction' on the high seas. Such developments were influenced by international arbitrations and court decisions. The reversion of both these assumptions has proved to be a hard task, [372] aiming at a more comprehensive approach in view of the

Portuguese was established through four expeditions between 1497 and 1503, including three under State monopoly and one associating Crown parity and private initiative.

369 Peter PADFIELD, **Maritime supremacy and the opening of the Western mind: naval campaigns that shaped the world 1588-1782** (London: Pimlico, 2000). It is extremely interesting to compare the approach of Anne-Marie HATTINGOIS-FORNER, in her book on **L'Atlantique au XVIII^e siècle** – Un monde construit par et pour les Européens? (Paris: Ellipses, 2013, 'conclusion', p. 181-182) noting that: «L'Atlantique européen se présente donc, au début du processus, comme un monde de métropoles dominantes et de colonies dominées. Cette inégalité Est-Ouest, 'horizontale', se doublant d'une autre sur la rive occidentale, 'verticale' en quelque sorte, entre les migrants volontaires blancs (colons libres voire engagés) et les populations déportées noires réduites en esclavage. / La prise de contrôle de l'espace atlantique par les Européens aurait ainsi abouti à la constitution de mondes atlantiques hétérogènes et pluri-hiérarchisés … dont les inter-connexions viennent peu ou prou à se rompre à partir de la fin du XVIII^e siècle.»

370 Cyrille P. COUTANSAIS, **Une histoire des empires maritimes** (© 2013, Paris: CNRS Éd. – Coll. 'Biblis', 2016, 'conclusion', p. 179-181) notes that well beyond fishery stocks and other living resources, the exploitation of the seas seems to give access to a 'new Eldorado', as the scope of such exploitation is not limited to the already promising reserves of oil and gas, already currently explored: "Perspective d'autant plus prometteuse que seule une infime partie des grands fonds a été exploitée à ce jour. […] La quantité de 'terres rares', par exemple, contenue dans les fonds marins s'élève ainsi à 90 milliards de tonnes contre 120 millions de tonnes sur la surface terrestre. Or ces 17 métaux, monopolisés aujourd'hui par la Chine, possèdent des propriétés chimiques et électromagnétiques indispensables aux technologies de pointe, des semi-conducteurs à l'industrie de défense en passant par la téléphonie, ou les énergies renouvelables."

371 David PEPPER, **Modern Environmentalism** (London: Routledge, © 1996, reprinted 2003, quoted p. 157): "If the way we regard society's relationship to nature relates to what we are *doing* to nature at any particular time, then we can equate economic modes and social relations of production with different conceptions of nature."

372 J. Donald HUGHES, **An Environmental History of the World** – Humankind's changing role in the community of life (London: Routledge, orig. publ. 2001, reprinted 2004, chapter 7 '*Exploitation and conservation*', p. 141-173, quoted p. 141): "Human

protection of the marine environment as a whole.

From the point of view of environmental protection, nevertheless, the principles and rules for the seas were far from being satisfactory to a considerable extent. Due to this, the seas have suffered irreversible and growing damages, substantially losing biodiversity and showing increasing levels of pollution. [373] Recent estimates point out to the fact that simply keeping fisheries at present levels might lead to the irreversible depletion or even exhaustion of fishery stocks within forty years. This is too short and too serious a threat as well as too irreversible as an outcome, not to be reckoned with.

It was only in the aftermath of World war second that the concern of the international community started to turn towards the seas not only as an economic issue, and an open field for the exercise of competing sovereign powers, but as an environmental necessity as well, and a matter of "common concern" for humankind. Among other victims, war activities also caused extensive damage to the environment, including the marine environment. The awakening to the fact that unsustainable exploration of fisheries and other marine livestock adversely affects the marine environment and the humankind as well, as the seas are the largest suppliers of food to all

exploitation of the natural world increased on an unprecedented scale in the period between the last decade of the nineteenth century and the 1960s. Within one human lifetime of 'threescore and ten', humankind experienced both escalating economic activity and widespread depression. Viewed on a world scale, the two great wars were the most destructive of life, both of humans and of the biosphere, in history. The ecosystems of the Earth were damaged in ways unknown before."

373 In 2014 the WWF estimated at 39% the loss of marine biodiversity from 1970 to 2010. The estimated damages were substantially increased over the latest two years. See WWF, **Living Planet Report** (2016). This year's report estimates that "we could witness a two-thirds decline in the half century from 1970 to 2020 – unless we act now to reform our food and energy systems and meet global commitments on addressing climate change, protecting biodiversity and supporting sustainable development". On the other hand, the FAO estimates at yearly additional 100 million tons of fishery and aquiculture products to feed the 9,6 thousand million people the earth may have by 2050. See Jeremy DRISCH, *De la conservation des ressources biologiques à la protection du milieu marin: quell cadre pour la surveillance et le contrôle?* (in **La Convention des Nations Unies sur le droit de la mer vingt ans après – Pratique opérationnelle des États**, "Journée débat, Monaco, 5 février 2015", Paris: Pedone / Monaco: Indemer, 2015, p. 59-72, quoted p. 59): "Le défi est donc colossal pour pouvoir parvenir à un bon état écologique de nos océans tout en assurant la sécurité alimentaire des générations à venir. Dans le même temps, les usages de la mer et l'exploitation de ses ressources et de son potentiel se développent, multipliant ainsi pressions et impacts sur le milieu."

humankind, took long to be ignited.

The seas have systematically received sewer as well as all kinds of waste from cities and industrial plants, as much as they have been littered by pollution from ports and sea vessels, while oil has been dumped into the seas as well as radioactive waste, combined with the pollution as a collateral outcome in times of war, as much as in times of peace. The seas are subjected to all threats of global warming and human predatory action. The added levels of average temperature may lead to threats in the *habitat* of several species, as the spreading death of coral banks already evidences. The formation of huge floating waste deposits and 'aquatic deserts' are growing concerns not only for expert environmentalists as well as are made evident also for the international community as a whole. Much of the damage is due to the use of exploration techniques such as nets wiping out the sea bed, and thereby depriving the marine environment of conditions for sustainable development.

The protection of the seas and their resources is therefore not only a matter of preservation of the waters and mineral resources, but also of the biodiversity in the marine environment. Marine biodiversity is as complex as fragile. The international legal protection thereof is the only way to maintain such 'common heritage' for 'present and future generations'.

The development of this vast field of the international law of the sea is broad and encompasses many aspects, with crucial role to be played by the international instruments for the protection of the seas. The international law of the sea views the 'common heritage' of humankind, as all the seas and their living marine resources, above all other concerns as a matter of mandatory protection for the survival of the humankind.

The U.N. *Agenda 21*, in its Chapter 17, contains a general action program, aiming at guiding States to give adequate and encompassing treatment to coastal and maritime zones. [374] At the time the *Agenda* was adopted the UNCLOS was not yet in force. [375] Equating sustainable protection and

374 United Nations Sustainable Development, United Nations Conference on Environment & Development (Rio de Janeiro, 3 to 14 June 1992), Agenda 21, chapter 17, "Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed areas, and coastal areas and the protection, rational use and development of their living resources", paragraphs 17.1 to 17.136.

375 Agenda 21, chapter 17, par. 17.1: "The marine environment – including the oceans and all seas and adjacent coastal areas – forms an integrated whole that is an essential component

development remains a challenge, especially for developing countries. [376]

Historically, the regulation of activities with effects on the seas has been done by treaties and regional programs. It would not be viable to list all these, due to their vast number, but as a trend, some of the most outstanding could be remembered. Regional seas have long had their own legal regimes such as, among same, the North Sea, the Mediterranean, [377] the Baltic Sea,[378] the

of the global life-support system and a positive asset that presents opportunities for sustainable development. International law, as reflected in the provisions of the United Nations Convention on the Law of the Sea" [...] "sets forth rights and obligations of States and provides the international basis upon which to pursue the protection and sustainable development of the marine and coastal environment and its resources. This requires new approaches to marine and coastal area management and development, at the national, subregional, regional and global levels, approaches that are integrated in content and are precautionary and anticipatory in ambit, as reflected in the following programme areas: (a) integrated management and sustainable development of coastal areas, including exclusive economic zones; (b) marine environmental protection; (c) sustainable use and conservation of marine living resources of the high seas; (d) sustainable use and conservation of marine living resources under national jurisdiction; (e) addressing critical uncertainties for the management of the marine environment and climate change; (f) strengthening international, including regional, cooperation and coordination; (g) sustainable development of small islands."

376 Agenda, chapter 17, par. 17.2: "The implementation by developing countries of the activities set forth below shall be commensurate with their individual technological and financial capacities and priorities in allocating resources for development needs and ultimately depends on the technology transfer and financial resources required and made available to them."

377 Beyond the technical aspects, the Mediterranean stands as a mythic and poetic cradle, the melting pot of several civilizations and cultural diversity. I.a., see: Fernand BRAUDEL's masterpiece, **La Méditerranée et le monde méditerranéen à l'époque de Philippe II** (originally publ. 1949, Paris: Armand Colin, 8e éd., 1987, 2 tomes), as well as ed. by F. BRAUDEL, **La Méditerranée: l'espace et l'histoire** (Paris: Flammarion, 1985) and by F. BRAUDEL and Georges DUBY, **La Méditerranée: les hommes et l'héritage** (© 1986, Paris: Flammarion, 2009), also the essays in the volume **Rethinking the Mediterranean**, ed. by W.V. HARRIS (Oxford: Univ. Press, 2005) and the anthology **Les poètes de la Méditerranée** (préf. d'Yves BONNEFOY, éd. d'Eglal ERRERA, "édition en français et dans toutes les langues originales", Paris: Gallimard / Cultures France, 2010).

378 K.-R. PUSTA, **Le statut juridique de la mer Baltique à partir du XIXe. siècle** (RCADI, 1935, vol. 52, pp. 105-190); Baron Michel de TAUBE, **Le statut juridique de la mer Baltique jusqu'au XIXe. siècle** (RCADI, 1935, vol. 53, pp. 437-530); Peter EHLERS, *Baltic Sea* (in **The Max Planck Encyclopedia for Public International Law**, ed. R. WOLFRUM, Oxford: Univ. Press, 2012, vol. I, p. 794-803 at 5 and 6) notes that "due to its natural conditions the Baltic sea is a very sensitive

Antarctic, [379] the Arctic, [380] the North Atlantic, the Persian Gulf [381] and others.

and vulnerable marine area. It's a very brackish water area receiving a large supply of fresh water from numerous rivers and rainfall." And also that "the Baltic sea is the final reservoir for polluting inputs from human activities which enter the Baltic sea ecosystem via a number of pathways, such as riverine runoff, atmospheric deposition, direct discharges from land, and activities at sea. The largest quantities stem from land-based sources including cities, industrial and agrarian areas. The anthropogenic inputs consist of nutrients, heavy metals and organic substances including hydrocarbons and oil. Nutrients, namely nitrogen and phosphorus, are the inputs of greatest concern with respect to eutrophication in the Baltic Sea, resulting in increased oxygen consumption and ultimately the formation of toxic hydrogen sulphide. […] Other examples of harmful substances detected in the Baltic sea are halogenetic paraffins, polyaromatic hydrocarbons, PCT and pesticides. In the meantime a decline in the concentrations of DDT and some other organic contaminants has been ascertained. […] Oil pollution of the Baltic sea is caused by emissions from land-based sources, shipping and off-shore activities."

379 I.a., see thereon: Francesco FRANCIONI, **La conservation et la gestion des ressources de l'Antarctique** (RCADI, 1996, vol. 260, p. 239-404); Silja VÖNEKY and Sange ADDISON-AGYEI, *Antarctica* (in **The Max Planck Encyclopedia for Public International Law**, ed. R. WOLFRUM, Oxford: Univ. Press, 2012, vol. I, p. 418-436 at 4) note that: "Due to the increasing range of activities conducted in Antarctica, questions of environmental protection are becoming more and more important. This is particularly due to the fact that Antarctica's ecosystem is believed to play a prominent role in the development of the world climate."

380 As noted by Odile DELFOUR-SAMAMA, in her chapter *Les enjeux liés à la protection de l'environnement arctique* (in **Nouvelles routes maritimes** – Origines, évolutions et prospectives, "Actes du Colloque de Nantes – Journées Scientifiques de l'Université de Nantes 11-12 juin 2015", ed. by O. DELFOUR-SAMAMA, C. LEBOEUF and G. PROUTIERE-MAULION, Paris: Pedone, 2016, p. 213-228) the Arctic Ocean is particularly exposed to global warming. Besides the ecological consequences of this phenomenon, the melting ice, exposing up new routes to previously very remote areas, makes possible the development of human activities, which could threaten the fragile environment of the Arctic region. While, on the one hand, the current legal framework – normatively fragmented and institutionally unstructured – seems to be inadequate to respond to these threats, on the other hand, while initiatives already emerge, there are growing concerns about the speed of their setting up, which is time-consuming and might not be fast enough to cope with the challenges of the climate change.

381 Andrea GIOIA, *Persian Gulf* (in **The Max Planck Encyclopedia of Public International Law**, ed. R. WOLFRUM, Oxford: Univ. Press, 2012, vol. VIII, p. 270-280 at 2) notes that "the Persian Gulf has relatively shallow waters, and was traditionally famous for its fishing grounds, coral reefs and pearl oysters. In addition, it harbored some important bases on the trade route to India. At present, however, the Gulf region is best known for its oil and gas fields, some of which are located in the underwater areas of the Persian Gulf itself. The world economy depends significantly on the region's

The protection of the marine environment involves several aspects which necessarily require ordered and encompassing action from several States, on all causes that may threaten the marine environment. As already noted by Wolfgang Graf VITZTHUM and Claude IMPERIALI, [382] coordinating a research group on the European regional system of environmental protection, with specific reference to the marine environment, and above everything else, in connection with the 'first experiences of maritime regionalism', such as were experienced in connection with the North Sea, [383] the Baltic Sea [384] and the Mediterranean. [385]

oil wealth and, since the oil trade is largely dependent on shipments, the Persian Gulf and the Strait of Hormuz are often described as 'an international oil highway'. This situation has enhanced the region's strategic importance and, consequently, its status in world politics, to the extent that the Persian Gulf is often referred to simply as 'the Gulf'; at the same time, there is little doubt that the region's strategic importance has significantly contributed to its political instability."

382 Wolfgang GRAF VITZTHUM et Claude IMPERIALI (sous la direction de), **La protection régionale de l'environnement marin: approche européenne** (préface Martin Bangemann, Paris: Econômica / Centre d'Études et de Recherches Internationales et communautaires – Univ. d'Aix-Marseille III, 1992).

383 Thomas O. CRON et Alexandra ZOLLER, *La mer du Nord* (in **La protection régionale de l'environnement marin: approche européenne**, op. cit., 1992, p. 57-76).

384 Uwe JENISCH et Rudiger WAGNER, *La mer Baltique* (in **La protection régionale de l'environnement marin: approche européenne**, op. cit., 1992, p. 99-124). See also, on the specific case of the Aland Islands, Sten HARCK, *Aland Islands* (in **The Max Planck Encyclopedia for Public International Law**, op. cit., 2012, vol. I, p. 279-285 at 26). The protection of the Baltic Sea was the aim of the Convention on the Protection of the Marine Environment of the Baltic Sea of 1974. Due to the political changes in the States around the Baltic Sea and in order to be in line with developments in international environmental and maritime law, a new identically named convention was signed in 1992. The Baltic coastal States as well as the European Union ratified the Convention that entered into force on 17 January 2000. The governing body is the Baltic Marine Environment Protection Commission, also known as the Helsinki Commission.

385 Maguelone DÉJEANT-PONS, *La mer Mediterranée* (in **La protection régionale de l'environnement marin: approche européenne**, op. cit., 1992, p. 77-98). As noted by Alain BRESSON, *Ecology and beyond: the Mediterranean Paradigm* (in **Rethinking the Mediterranean**, ed. by W. V. HARRIS, Oxford: Univ. Press, 2005, p. 94-114 at 94-95) "the nucleus of the Mediterranean paradigm consists in an exceptional fragmentation of landscapes and countryside as well as in an extreme instability and unpredictability of the climate, which thanks to the presence of the sea provided the conditions for a connectivity that reached a level unknown in other climatic or regional zones. […] It has long been recognized that the Mediterranean Sea potentially provided

Global consensus on global issues is always very hard to be reached, and the same is true in connection with the seas, in such a way as to render the several aspects connected with the preservation of the marine environment a subject matter contained in a reduced number of treaties. Therefore, regional consensus to same global issues may sometimes be more viable to be reached. Tom IJLSTRA [386] emphasized the convenience of adopting a regional focus for planned and concerted uses of the seas.

The legal treatment of the seas was considerably enhanced with the combination of the UNEP Program for Regional Seas and the U.N. Convention on the Law of the Seas, especially in areas beyond national jurisdiction, so as to be made harmonized and cohesive. The intention of such legal instruments was to set up a standard for the regulation of the seas in order to influence the subsequent development of treaties and other international regulatory instruments.

Notwithstanding such relevant 'regional' developments, the sustainable use of maritime resources is far from being reached by the international legal instruments in force, as same is most often focused only on limited issues of conservation. The international protection of the marine environment also includes treaties on cooperation, oil pollution, the disposal of radioactive waste at the bottom of the seas, and other activities in the seabed, among others. [387]

Among the main multilateral instruments for protection of the marine environment deserve to be quoted: the London Convention on the Prevention of Marine Pollution by dumping of wastes and other matter (adopted 29

an exceptional space of connectivity." Such space of connectivity is nevertheless marked by extreme diversity: "The fragmented configuration of the Mediterranean Sea also deserves special attention. That the Mediterranean is highly compartmented is well known and deserves little mention in itself: the existence of two Mediterranean basins, east and west of the Sicilian straits, was commonly observed in antiquity, for instance by POLIBIUS and STRABO. But several sub-zones also have their own identity, such as the Tyrrhenian Sea between Italy, Sicily, Sardinia, and Corsica, the Adriatic, the Aegean Sea, and of course the Black Sea, to mention only the principal ones."

386 Tom IJLSTRA, *Vers une approche régionale planifiée et concertée des usages de la mer* (in **La protection régionale de l'environnement marin: approche européenne**, op. cit., 1992, p. 127-145).

387 See Axel BUSSEK, *Les régimes de responsabilité internationale pour dommages causés à l'environnement marin* (in **La protection régionale de l'environnement marin: approche européenne**, op. cit., 1992, p. 149-177).

December 1972, in force 30 August 1975, as amended by the Protocol of 1996), the International Convention for the Prevention of Pollution from Ships (signed 2 November 1973, and 1978, in force 2 October 1983, the 'MARPOL' Convention), the UNEP Program for regional seas (since 1974), before considering the United Nations Convention on the Law of the Sea (1982, in force 1994) on matters of international environmental law.

The London Convention for the prevention of marine pollution from waste (1972), in force since 1974, as amended by the Protocol of 1996, aimed to eventually replace the original text of the Convention. Albeit same has been in force since 2006, many States are still bound only by the former version of the Convention. In view of the circumstances, both texts are to be taken into consideration, when dealing with the subject matter thereof. [388]

The Convention, as amended – but without the changes introduced by the Protocol – aims at restricting the disposal of waste and other pollution agents, stemming from ships, airplanes, terrestrial sources and other man made structures. The disposal of waste, also named *dumping*, includes the deliberate disposal of waste and other materials. Occasional or normal spilling, according to the definition given by the Convention, is not considered as *dumping*.

Article IV forbiddens the dumping of waste and materials, as listed in Annex I. [389] Waste and materials listed in Annex II require special license to be disposed of, whereas as other waste and materials of any kind require special license for being disposed. Licenses can only be given after studies are carried out, in conformity with Annex III.

State Parties are required to appoint a national authority for granting such licenses, according to article VI. The provisions of the Convention should be applied by the State Parties for all ships, airplanes and platforms registered in the territory, under the national jurisdiction of that State (the 'state flag'), taking on board materials to be dumped or intended to be dumped in national waters, provided, in turn, by article VII of the London Convention.

According to the procedure, stipulated in article XIV, the Parties have chosen the International Maritime Organization to operate as Secretarial Body for

388 In Brazil, the Convention was approved by Legislative Decree nr. 10/82 and rendered public by Decree nr. 87.566/82. The Protocol, however, was not ratified.

389 Annex I lists, for example, industrial and radioactive waste, as well as the incineration of waste, in general, at the sea.

the London Convention.

The International Convention for the Prevention of Pollution from ships (1973, 1978, also called MARPOL) in its original version of 1973 never came into force. Only after the Protocol of 1978 introduced relevant changes, it was possible to gather the required number of adhesions, in order to have the text coming into force, in 1983, including Brazil. [390] Since then, the Convention has been systematically amended, and contains an extensive and detailed text, especially when compared with other equivalent international instruments.

The MARPOL replaced, for most States, the International Convention for the Prevention of Sea Pollution with Oil (OILPOL), dated 1954. Such former Convention, albeit several changes were introduced to the original wording of same, had not been efficiently applied. Nevertheless, some States still remain bound only by the 1954 Convention on these matters.

Albeit the oil pollution is a minor source of maritime pollution, as pollution stemming from the land is responsible for estimated 80% of total maritime pollution, the spreading of oil on the sea tends to have dramatic impact on public opinion, and to be widely explored and reported by the media, when such incidents occur. Catastrophes caused by accidents with large oil transporting sea vessels hit intensely, albeit topically, the environment, the economy and the life of coastal population and fishing activities, whereas the dumping of pollution into the sea, although gradually carried out and 'diluted', but constantly made and at large scale, tends to attract much less attention. In any case, should not be neglected the effects of oil leaking pollution, ensuing accidents as occurred with sea vessels such as the *Torrey Canyon, Amoco Cadiz* and *Exxon Valdez*.

The pollution of the seas does not result only from accidents and oil leaks. Cargo ships still dump into the sea the water used for washing its storage tanks, containing substantial volume of waste, and also living stock, which may into turn environmental threats in another continent, due to the lack of the corresponding predators to such 'transported' species.

The Convention intended to provide broader treatment of the matter, including other substances beyond oil. Some of the provisions of the Convention clearly reflect customary rules, whereas some of the most specific provisions on prevention of pollution, as well as the rules stipulated

390 Brazil approved the Convention by Legislative Decree nr. 60/95 and same was rendered public by Decree nr. 2.508/98.

in the Annexes are only binding among Contracting Parties.

The main provisions of MARPOL, not comprising the Annexes, are focused on the cooperation of the coastal states to ensure overview as well as procedures for inspection and certification. The IMO is in charge of collecting the reports from the State Parties as pertains the fulfillment of the Convention. In addition thereto are six Annexes, of which only Annexes I and II require mandatory adhesion. Such Annexes contain quite detailed rules and regulate technical aspects of maritime transport.

Annex I deals with the prevention of oil pollution. Annex II regulates the control of pollution caused by damageable liquid cargo. Annex III provides rules on the prevention of pollution for hazardous products transported in *containers*. Annex IV regulates prevention of pollution from sewer of sea vessels. Annex V regulates the prevention of pollution by dumping of waste into the sea by sea vessels. And, in turn, Annex VI deals with the prevention of atmospheric pollution caused by sea vessels.

In 1974, was started the *UNEP Program for regional seas* following the impulse given the Conference of Stockholm two years before, intending to fight against the degradation of the regional seas. [391]

In the perspective of strategies for sustainable development, this Program had the advantage of integrating policies of conservation and sustainable exploitation of the high sea and the coastal systems, with active participation of the concerned coastal states. With more than 140 States and extending over 18 regional seas, some of which with international legal regimes, provided by specific treaties, renders the United Nations Program a relevant device for the implementation of the protection of regional seas.

The Program is to be implemented by Action Plans specifically designed for each regional sea. In such Action Plans the State Parties, under coordination and with assistance from the UNEP, stipulate policies for ordering and managing the common marine resources, in view of ensuring the rational and environmentally adequate and sustainable exploitation of same. The Action Plans encompass all the aspects related to the conservation of the seas, such as all forms of pollution, the exploitation of mineral and marine resources, as much as transport and tourism activities.

Carla A. GOMES (2002)[392], analyzing the international environment

391 See <http://www.unep.org/regionalseas>.

392 Carla Amado GOMES, *A proteção inernacional do ambiente na Convenção de Montego Bay* (in

protection under the Montego Bay Convention draws attention to the relevant evolution of the treatment of questions related to the preservation of the marine environment: from an older approach, formerly based on the assumption that there was an *unlimited capacity of assimilation and profit* – which still guided the London Conventions of 1972 and 1973 – thus justifying the adoption of preventive measures only when the risk to the environment was reasonably foreseeable, moved on towards a new model, based on the assumption that there is *limited capacity of assimilation and profit* – as clearly stated by the Montego Bay Convention, particularly in Part XII. An additional move was made, by the end of the 1980's, with the implementation of an attitude of predominant prevention by State Parties – as clearly stated by the London Declaration of 1987, towards a picture of *incapacity of assimilation and unlimited profit*, thus obliging the States to refrain from interventions potentially damageable to the marine environment, including situations where scientific data available do not yet allow to establish the causal link between the projected intervention and the ensuing damages. [393]

Although the Montego Bay Convention does not stipulate material environmental rules, it does reject the former traditional approach, according to which the production of pollution was more or less seen as a 'right', implicit in the freedom of the seas. The underlying concept was of an asset belonging to nobody – a *res nullius*. The evolution from the former to the stipulation of the "common heritage of mankind" by the UNCLOS is a landmark in the evolution of International law in the 20th century. [394] Notwithstanding its relevance as a conceptual evolution and its direct

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Estudos em homenagem à professora doutora Isabel de Magalhães Collaço, org. Rui M. de MOURA RAMOS *et al.*, Coimbra: Almedina, 2002, v. II, p. 695-724).

393 As noted by C. A. GOMES (chap. quoted, 2002, p. 696-697): "É a propósito destes últimos desenvolvimentos que se fala do princípio da precaução e dos seus efeitos revolucionários no domínio do direito internacional, concretamente, para o que aqui releva, no direito do mar. Esse conceito, de natureza muito debatida, teve a sua gênese precisamente no direito do mar (a propósito dos problemas da poluição marinha) e tem alargado o seu âmbito a variados objectos, no domínio estrito do ambiente e noutros (como a saúde pública: lembre-se o problema da doença das vacas loucas). O acordo de 1995, celebrado em Nova Iorque para dar aplicação às disposições da Convenção de Montego Bay sobre a protecção dos peixes transzonais e das espécies altamente migratórias, tem sido apontado como exemplo de mais uma consagração da ideia de precaução (cfr. o artigo 6) e também como passo sedimentador da caminhada do direito das pescas em direcção a um novo estádio".

394 P. BORBA CASELLA, **Direito internacional dos espaços** (São Paulo: Atlas, 2009,

impact on further development of International law of the seas, under many aspects, the Convention as such often provides only the framework for the development of more specific and binding legal instruments aiming at the preservation of the environment. [395]

Concerning the specific provisions aiming at environmental protection the UNCLOS lists several kinds of marine pollution. Understandably, the corresponding articles often reflect the contents of former international acts, such as concerning the pollution coming from activities carried out on the land, the pollution coming from activities carried out in the "Area", pollution stemming from dumping of waste and pollution coming from the atmosphere.

The UNCLOS has to be seen rather as a initiative to regulate and to balance the use of the marine spaces, as intending at the preservation of the marine environment and the promotion of sustainable development. The Convention emphasizes the need of international cooperation, but does not provide concrete parameters for the conduct of States in specific cases, such as, e.g., standards for measuring *pollution* and the *impact* thereof on the marine environment and resources. Many customary rules were simply consolidated into the Convention of 1982.

Special attention should be given to the sea bed, named the "Area" in the UNCLOS, with its mineral resources, to which was given the status of *common heritage of mankind* – by article 136. Nevertheless, the condition of the Area as such only generates the obligation for the State Parties to ensure equitable use of present resources therein, as well as a duty to observe the principle of the responsibility towards future generations. [396] Under such a legal heading,

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chapter XX, '*espaços internacionais: de res nullius a patrimônio comum da humanidade*', p. 565-586).

395 Ulrich BEYERLIN, *New developments in the protection of the marine environment: potential effects of the Rio Process* (ZaöR, 1995, v. 55, p. 547); U. BEYERLIN, **Rechtsetzung und Rechtsdurchsetzung im Umweltvölkerrecht** nach der Rio-Konferenz 1992 (Heidelberg: Max Planck Institut für ausländisches öffentliches Recht und Völkerrecht / Berlin: Erich Schmidt Verlag, 1997); U. BEYERLIN and Thilo MARAUHN, **International Environmental Law** (Oxford: Hart, 2011).

396 Among many who wrote about the concept, see J. A. CARRILLO SALCEDO, *Le concept de patrimoine commun de l'humanité* (in **Ouvertures en droit international** – hommage à René-Jean DUPUY, Paris: Pedone, 1998, p. 55-66); Charles A. KISS, **La notion de patrimoine commun de l'humanité** (RCADI, 1982, t. 175, pp. 99-256).

State Parties should adopt measures to ensure the protection of human life against damageable effects of the exploitation of sea bed resources, as stated by article 146 of UNCLOS. The International Authority thus created as an Intergovernmental organization, according to article 156, will be entitled to set up adequate regulations for the exploitation of the sea bed. [397]

The most relevant international environmental protection provisions of UNCLOS are stipulated in Part XII of the Convention. Articles 192 to 206 contain the general provisions, whereas the following articles regulate pollution coming from the land (in articles 207 and 213), activities at the sea bed (articles 208, 209, 214 and 215), dumping (articles 210 and 216), pollution from sea vessels (articles 211, 217 to 221) and pollution coming from the atmosphere (article 212).

On the one hand, article 192 states a general obligation for State Parties to protect and maintain the marine environment, whereas, on the other hand, article 193 has the great merit of having transformed the principle, adopted by the Stockholm Declaration on the environment into a binding rule of International treaty law, whereby "*states have the sovereign rights to use their natural resources according to their policies on matters of the environment and in conformity with their duty to protect and maintain the marine environment*".

In addition thereto, the UNCLOS, still under the heading of general provisions, as stated in article 194, stipulates the obligation for States to adopt the most efficient available means to avoid and to reduce the sea pollution, provided same are viable. Such obligation is a great substantial step forward in terms of directing the conduct of States, albeit in practice, the implementation of such provision may seem doubtful.

Pollution stemming from the land, scope of articles 207 and 213 of the Convention, is the source of estimated 80% of total pollution in the seas. Notwithstanding its relevance, International law has devoted little attention to the matter, as such pollution stemming from land is produced inside national jurisdictions, and initially reach the interior waters – and thereafter pours down into rivers going into the sea, namely in territorial waters, for the matter. The trend, enhanced by the Rio de Janeiro Environmental Conference of 1992, is to adopt more strict rules with the purpose of reducing pollution carried to the seas by rivers, by sewers and other sources, with equivalent outcome.

397 J. BASEDOW and U. MAGNUS (ed.), **Pollution of the Sea: Prevention and Compensation** (Berlin: Springer, 2007); U. BEYERLIN, **Umweltvölkerrecht** (op. cit., 1997, p. 127).

During the negotiation of the 1982 Convention, as shown by the *travaux préparatoires*, concerning pollution stemming from land, it was not possible to combine the intention of adopting strict rules, as forwarded by some countries, but opposed by the majority. The outcome is stated in the adopted text of the Convention, with minimum levels of control, to the extent that it is left to the parties to adopt the laws and the regulations the countries may deem fit for the purpose.

As to pollution stemming from activities in the 'Area', i.e., at the bottom of the sea, beyond the limits of any national jurisdiction, same is regulated by the 1982 Convention in articles 208, 209, 214 and 215. This is an issue about which little has been done. The bottom of the sea is rich in minerals and other valuable resources, as hydrocarbons. The economic exploitation of these resources may have damaging effects both for the sea and for the living marine stock. A commendable but failed intent to regulate in a more binding manner the protection of the bottom of the sea was sketched by the UNESCO Convention on Cultural Sub aquatic heritage, of 2001, which did not reach the minimum required number of ratifications in order to enter into force. Its entry into force would be desirable but may not realistically be expected. [398]

Concerning *dumping*, [399] the Convention on the Law of the Sea simply repeats the corresponding provisions from the London Convention on dumping, in articles 210 and 216. In other words, we have to turn towards the London Convention of 1972 and the deliberations adopted by its State Parties in order to find the International Law in force on this matter. In accordance with provisions of both 1972 and 1982 Conventions, dumping means any "*deliberate disposal in the sea of garbage and other materials, from sea vessels, airplanes, platforms or other constructions*" and "*any deliberate sinking into the sea of sea vessels, airplanes, platforms or other constructions*". Whereas in the past *dumping* was considered a 'normal' practice, already before World war second started the consciousness that the capacity of the seas to absorb all the garbage was questionable, due to the occurrence of new and stronger pollution agents

398 For an analysis of the compatibility between the Convention on the Law of the Sea and the UNESCO Convention see M. RAU, *The UNESCO Convention on Underwater Cultural Heritage and the International Law of the Sea, Max Planck* UNYB 6 (2002), p. 387-464.

399 Thomas A. MENSAH, *Marine Pollution from Ships, Prevention of and Responses to* (in **The Max Planck Encyclopedia of Public International Law**, ed. R. WOLFRUM, Oxford: Univ. Press, 2012, vol. VI, p. 1044-1056); Th. A. MENSAH, *Maritime Safety Regulations* (in **Encyclopedia**, 2012, vol. VI, p. 1128-1135).

and, above all, of contamination by oils. It is evidence of such concern that the first treaties adopted deal with pollution caused by oil, a task entrusted to the International Maritime Organization (IMO). As regards other pollution agents, their control is ascribed to the Secretarial Body of the 1972 London Convention, known as the "*London Dumping Convention*", containing list of pollution agents whose dumping is forbidden and that require a special authorization.

The dumping of radioactive waste, was for several years one among the most controversial matters in the Convention, was totally prohibited since 1994. The incineration of waste in the sea, done by ships equipped to that activity, is equated with dumping, and is equally prohibited.

In addition to the relevant provisions on the matter, contained in the UNCLOS, an extensive list of international instruments of varying character may be drawn in connection with the protection of the marine environment and prevention of pollution from ships. [400]

400 Such as e.g.: the Acuerdo de Viña del Mar (signed 5 November 1992); the Agreement for Cooperation in dealing with Pollution of the North Sea by Oil and other harmful substances (signed 13 September 1983, in force 1 September 1989), the 'OSPAR' Convention for the protection of the Marine environment of the North-East Atlantic (signed 22 September 1992, in force 25 March 1998), the Convention on the Prevention of Marine Pollution by dumping of wastes and other matter (adopted 29 December 1972, in force 30 August 1975), the Convention on the Protection of the Marine Environment of the Baltic Sea (adopted 9 April 1992, in force 17 January 2000), the International Convention for the Prevention of Pollution from Ships (signed 2 November 1973, in force 2 October 1983, the 'MARPOL' Convention), the 1954 International Convention for the Prevention of Pollution of the Sea by Oil (signed 12 May 1954, in force 26 July 1958), the International Convention for the Safety of Life at Sea (signed 1 November 1974, in force 25 May 1980), the International Convention on Civil Liability for Oil Pollution Damage (concluded 29 November 1969, in force 19 June 1975), the 1990 International Convention on Oil Pollution Preparedness, Response and Cooperation (signed 30 November 1990, in force 13 May 1995), the International Convention on the establishment of an International Fund for Compensation for Oil Pollution Damage (adopted 18 December 1971, in force 16 October 1978), the International Convention relating to intervention of the High Seas in cases of Oil Pollution Casualties (adopted 29 November 1969, in force 6 May 1975), the International Maritime Organization Resolution 'Amendment to Annex I to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other matter 1972 concerning the prohibition of Incineration at Sea' (12 November 1993), the International Maritime Organization Resolution 'Amendments to the Annexes to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other matter 1972 concerning the disposal at Sea of Radioactive Wastes and other Radioactive Matter (adopted 12 November 1993,

The pollution stemming from sea vessels is regulated in articles 211, 217 to 221 of the 1982 Convention on the Law of the Sea. Article 211, based mainly in the Convention executed under the auspices of the IMO, carefully focuses on the problem of pollution stemming from sea vessels, with the general obligation of "preventing, reducing, controlling pollution of the marine environment, stemming from sea vessels".

As in all other provisions on pollution, this article stipulated the need of adopting treaties and regulations aiming at preventing, reducing and controlling pollution. In the case of national laws, this provision goes beyond other provisions, as it stipulates that same should have "at least the same effect as the international rules and provisions generally accepted, to be established in accordance with the competent international organization" – read the International Maritime Organization – or "general diplomatic conference".

The coastal State, within the exercise of its sovereignty, has the right to adopt legislation aimed at preventing pollution stemming from foreign sea vessels, including those just crossing the territorial waters, featured as 'innocent passage'. The coastal State may also adopt more strict measures to prevent pollution stemming from sea vessels in its exclusive economic zone (EEZ), provided that certain oceanographic and ecological requirements are met.[401]

in force 20 February 1994); the Memorandum of Understanding on Port State Control for the West and Central African Region (signed 22 October 1999, the 'Abuja MoU'); the Memorandum of Understanding on Port State Control in the Asia-Pacific Region (signed 1 December 1993, in force 1 April 1994, the 'Tokyo MoU'); the Memorandum of Understanding on Port State Control in the Black Sea Region (signed 7 April 2000); the Memorandum of Understanding on Port State Control in the Caribbean Region (signed 9 February 1996); the Memorandum of Understanding on Port State Control for the Indian Ocean (signed 5 June 1998); the Memorandum of Understanding on Port State Control in the Mediterranean Region (signed 11 July 1997); the Paris Memorandum of Understanding on Port State Control (adopted 26 January 1982, in force 1 July 1982; the Protocol of 1978 relating to the 1973 International Convention for the Prevention of Pollution from Ships (with Annexes, Final Act and International Convention of 1973) (signed 17 February 1978, in force 2 October 1983), the Protocol of 1992 to Amend the 1969 International Convention on Civil Liability for Oil Pollution Damage (with Annex and Final Act) (adopted 27 November 1992, in force 30 May 1996), the Protocol of 1992 to Amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (adopted 27 November 1992, in force 30 May 1996), the Riyadh Memorandum of Understanding on Port State Control (signed 30 June 2004).

401 Francisco ORREGO-VICUÑA, **La zona económica exclusiva: régimen y**

The action of an isolated state, on behalf of the common concern, is contained in the 1982 Convention under article 218, 1 and 218, 2. In a similar way, the Agreement on conservation and management of migratory fishing resources (1985) [402] stipulates certain enforcement measures by Party States individually considered, in relation to fishing vessels, carrying the flag of other states. [403]

In the case of fishery jurisdiction, between Spain and Canada, decided by the International Court of Justice on 4 December 1998, [404] the Court analyzed the request submitted by Spain against Canada, on 28 March 1995, related to the change, made on 12 May 1994, of the national Canadian law on matters of protection of coastal fishing, as contained in the Canadian Coastal Fisheries Protection Act as amended, resulting from regulations, aiming at the implementation of that law, and also listed specific measures and actions adopted by Canada, based on the new wording of such law and regulations, including the pursuit and seizure in the high seas, on 9 March 1995, of the fishing vessel *Estai*, carrying the Spanish flag. The submission invoked as basis

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naturaleza jurídica en el derecho internacional (Santiado: Ed. Jurídica de Chile, 1991); Belter GARRE Copello, **La zona económica exclusiva** – usos no contemplados de la zona económica exclusiva, del espacio aereo suprayacente y de la plataforma continental en la Convención de las Naciones Unidas sobre derecho del mar de 10 de diciembre de 1982 (Montevideo: Dirección General de Extensión Universitaria, 1987).

402 **Agreement relating to the conservation and management of straddling fish stocks and highly migratory fish stocks** A/CONF.164/37, 8 de setembro de 1995 (ILM 34 (1995) 1547).

403 R. WOLFRUM, **Means of ensuring compliance with and enforcement of international environmental law** (in the Collected Courses of the Academy of International Law, 1998, t. 272, p. 9-154, cit. p. 154) notes that "the regimes on the protection of the ozone layer and against climate change, as well as the **Convention for the protection of the north-east Atlantic** are based upon the same philosophy since they open the possibility for individual states to invoke non-compliance of others. In the examples referred to – and this constitutes the dogmatic innovation, already referred to – the state does not proceed on the basis of its own interests, but upon the community interest. Consequently the individual state's competences to enforce international obligations of another state are not used in the interest of the enforcing state but in the interest of the community of states. This means a profound modification of international law, which can no longer – at least not exclusively – be regarded as merely responding to the interests of individual states".

404 CIJ, case concerning **fisheries jurisdiction** (Spain vs. Canada, judgment 4 December 1998).

for the jurisdiction of the Court the declaration of both States, whereby same had accepted the compulsory jurisdiction of the Court, in accordance with article 36, § 2 of the Statute of the International Court of Justice. [405]

The Court accepted the opinion stated by Spain, whereby "international instruments have to be interpreted with reference to international law". Nevertheless, as regards the content of "conservation and management measures", such as those used in the Canadian reservation to the acceptance of the compulsory jurisdiction of the International Court of Justice, the Court stated: "in conformity with International law, in order that a certain measure may be considered as a 'conservation and management measure', it is enough that this is done in view of protecting and managing living stock, and to that effect, fulfils the corresponding technical requirements, and to that effect the expression 'conservation and management measures' is to be interpreted and applied as practiced by the states, who adopt such measures.

The same can be stated about the practice of the states. Usually, internal laws and administrative acts of states describe such 'conservation and

405 The Canadian Ambassador to the Netherlands, in a letter dated 21 April 1995, addressed to the ICJ informed the Court that in the view of his Government, the Court lacked jurisdiction to accept and to decide about the case, to the extent that the Court, according to the statement "manifestly lacks jurisdiction to deal with the application filed by Spain (…) by reason of paragraph 2 (d) of the Declaration, dated 10 May 1994, whereby Canada accepted the compulsory jurisdiction of the Court". The acceptance of compulsory jurisdiction of the International Court of Justice by Canada had been stated in a Declaration, issued in 1985, whereby were stated three reservations, contained in letters (a), (b) and (c) of paragraph 2, to which were added, in a new Canadian Declaration, issued in 1994, the additional reservation, stipulated in letter (d) related to controversies "arising out of or concerning conservation and management measures taken by Canada with respect to vessels fishing in the NAFO Regulatory Area, as defined in the **Convention on future multilateral co-operation in the Northwest Atlantic Fisheries**, 1978, and the enforcement of such measures".

On 9 March 1995, the Spanish fishing ship *Estai*, with Spanish crew, was seized at 245 miles from the Canadian coast, at Division 3L of the *NAFO Regulatory Area* named *Grand Banks Area*, by ships of the Canadian government. The ship was seized and the captain arrested, based on alleged violation of the Law on the Protection of coastal fishing and regulations to same. The crew was brought to the Canadian port of St. John's, in Newfoundland, where same were indicted for violation of such legislation and specifically for illegal fishing of the *Greenland Halibut*; part of the fish found on board was seized. The members of the crew were set free immediately thereafter. The captain was set free on 12 March 1995 and the ship was allowed to sail away on 15 March 1995, after *posting of a bond*.

management measures' with reference to scientific and technical criteria". In that way, "reading the terms of the Canadian reservation in a natural and reasonable manner, there was nothing allowing the Court to come to the conclusion that Canada might have had the intention of using the expression 'conservation and management measures' in a different sense from what is generally accepted in International law and practice. In addition, any other interpretation of the expression would deprive the reservation of its intended effect".

The Court, after reviewing the amendments to national law adopted by Canada, [406] in 1994 and 1995, stated that same were consistent with what is interpreted as "conservation and management measures", in the sense that such expression is usually understood in International law and practice, and were as such applied in the Canadian reservation. The Court also analyzed the concept of vessel and observed that the "conservation and management measures", to which refers the Canadian reservation could only refer to the high sea and therefore could only have as its scope the vessels that might be within the Area of fishery protection under NAFO. [407] In view of the legal considerations developed, the Court declared not to have jurisdiction to decide about the case. [408]

406 The same day the Canadian Government deposited the new Declaration, was presented to Parliament an Amendment proposal (*Parliament Bill C-29*) rewording provisions of the *Coastal fisheries protection act*, extending its scope of application, to encompass the *Regulatory Area* by the **Northwest Atlantic Fisheries Organization (NAFO)**. The Amendment proposal was approved, and received the *Royal Assent on* 12 May 1994. The regulations on protection of Coastal fishing were equally amended, on 25 May 1994 and again on 3 March 1995, when Spanish and Portuguese fishing ships were detected in Area IV of sect. 21 (the category of ships not allowed to fish the *Greenland Halibut* in the region).

On 12 May 1994, following the adoption of Law C-8, Canada also amended provisions of its Criminal Code, in connection with the use of force by Police officers and other Peace Force Agents, to ensure fulfillment of the law. This section was equally applicable to Police in charge of fishery protection.

407 ICJ, **fisheries jurisdiction** (Spain v. Canada, judgment 4 December 1998), at 74-77: "the conservation and management measures to which this reservation refers are measures 'taken by Canada with respect to vessels fishing in the NAFO Regulatory Area, as defined in the **Convention on future multilateral co-operation in the Northwest Atlantic Fisheries**, 1978'. As the NAFO 'Regulatory Area' as defined in the Convention is indisputably part of the high seas, the only remaining issue posed by this part of the reservation is the meaning to be attributed to the word 'vessels'".

408 ICJ, **fisheries jurisdiction** (Spain v. Canada, judgment 4 December 1998): "For

Beyond the strict features of the case, and the specific situation dealt with, same is relevant, in view of the fact that it deals with the question of the applicability of International law rules by a State, also referring to complementary provisions to be found in its national law, to the extent that same are consistent with International law. Equally interesting are the delimitations of the controversy: the immediate scope of the case – the vessel *Estai* and the treatment given to same and to its crew and cargo, by the Canadian authorities; the main issue at stake, the limits of the interpretation and application of the International law rule and the extent of the application of the Raul FERNANDES clause, or the optional clause of compulsory jurisdiction, and of reservations to same, as regards the possible extension of application of same.

Along the same line of conceptual evolution and operational change in post modern International law, the *Institut de droit international*, in its Resolution on *erga omnes obligations*, adopted at the Krakow Session (2005), [409] included the obligations related to the environment and the protection of common spaces as examples inserted among those "obligations reflecting such fundamental values". Thus, this is not a matter of bilateral interstate relations, and becomes a subject for common concern of the community of states, as a whole, and in connection therewith any state can act on behalf of the common interest, regardless of its being directly aimed at or affected by such breach of a legal obligation. The notion of erga omnes obligations is useful as a parameter to legitimate such concerted actions.

Pollution stemming from the atmosphere or through the atmosphere is treated in article 212, which does not clearly regulate the matter. The control rules, both international and national are not bound to be in conformity with the strictest parameters, as stipulated by article 211.

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these reasons, the Court, by twelve votes to five, finds it has no jurisdiction to adjudicate upon the dispute brought before it by the application filed by the Kingdom of Spain on 28 March 1995".

409 IDI, Resolution adopted on 27 August 2005, on ***Obligations and rights* erga omnes *in international law*** (by the 5th Commission, Rapporteur Giorgio GAJA, stated that "en vertu du droit international, certaines obligations s'imposent à tous les sujets du droit international dans le but de préserver les valeurs fondamentales de la communauté internationale", whereby "existe un large consensus pour admettre que l'interdiction des actes d'agression, la prohibition du génocide, les obligations concernant la protection des droits fondamentaux de la personne humaine, les obligations liées au droit à l'autodétermination et les obligations relatives à l'environnement des espaces communs, constituent des exemples d'obligations qui reflètent lesdites valeurs fondamentales".

It may sometimes be difficult to clarify where the pollution comes from, as in many cases same may come from the land, but may have reached the seas through the atmosphere. This is the case of the acid rain transported by air currents through the North Sea, reaching the Scandinavian countries. The smoke stemming from the coal-powered engines of older vessels was, in the past, a serious cause of pollution. The ashes stemming from ships with incineration devices were another serious cause of pollution of the seas until 1993 when such practice was forbidden.

Albeit environmental protection as such may not have been the main scope of the United Nations on the Law of the Sea, beyond any doubt UNCLOS has nevertheless certainly contributed to the development of the protection of the marine environment, as one of the relevant international instruments, aiming at a broader and more comprehensive approach towards the international protection of the marine environment and biodiversity. This is an additional aspect to be taken into account, when assessing the wide-ranging impact of the UNCLOS to the development of International law, along the latest decades. Assessing the pending tasks lying ahead of us, it is clear that for the fulfillment of all such implementation and developments the ITLOS has a crucial role to play along the next decades.

7

THE APPLICATION OF THE PRECAUTIONARY PRINCIPLE: THE ROLE OF THE INTERNATIONAL TRIBUNAL FOR THE LAW OF THE SEA

Tiago Vinicius Zanella

I. Introduction

The Risk Society

It was during the 1960s that discussions regarding the protection of the marine environment began to spread in the international community; these discussions were particularly influenced by disasters and accidents with irreversible consequences.[410] It is at that time in history that an epistemological

410 See P. Galizzi and A. Herklotz, 'Environment and development: friends or foes in the 21st century?' in M. Fitzmaurice, D. Ong and P. Merkouris (eds), *Research Handbook on International Environmental Law* (Edward Elgar Publishing Limited, 2010) 69-99, at 87; E. Louka, *International Environmental Law: Fairness, Effectiveness, and World Order* (Cambridge University Press, New York, 2006) at 27; J. M. Miller, 'Pesticides' in D. M. Steinway, K. A. Ewing, D. R. Case, K. J. Nardi, W. F Brownell (eds), *Environmental Law Handbook* (Government Institutes, USA, 2011) 807–868, at 807.

rupture started to occur in the use of resources, and scientific uncertainty began to characterize environmental issues.[411] Technological progress, in addition to economic and social progress, also led to a globalization of the risks.[412] That means that we lost the exact notion of the effects caused by the exploration of natural resources.[413] It became clear that environmental damage can project their effects in time without certainty and control of the level of danger. This is evident in the case of oil tankers that sank and kept spilling oil in the environment for decades.[414] Therefore, the future risk of damage is currently an element that characterizes all the global environmental concerns.[415]

In this sense, the concept of a "risk society"[416], which was coined by German sociologist Ulrich Beck, is crucially important. The development of his thesis allowed the environmental and technological risks to be ranked as the main concern of the world with the start of the so-called second modernity.[417] To

411 See E. B. Weiss, 'Global environmental change and international law: The introductory framework' in E. B. Weiss (ed) *Environmental Change and International Law: New Challenges and Dimensions* (The United Nations University, Tokyo, 1992) at 15.

412 In this sense C. A. Gomes, *A prevenção à prova no direito do ambiente: em especial, os actos autorizativos ambientais* (Coimbra Editora; Coimbra, 2000) at 16.

413 About the matter, M. A. Hermitte, 'Os fundamentos jurídicos da sociedade do risco: uma análise de U. Beck' in M. D. Varella, *Governo dos riscos* (Rede Latino - Americana – Européia sobre Governo dos Riscos, Brasília, 2005) 6-22, at 9 summarizes: "[…] the increase of scientific knowledge does not coincide with the reduction of uncertainty." (translated freely. All texts not in English originally have been translated freely by the author)

414 The vessels *Arizona* and *Jacob Luckenbach* continue to spill oil in the marine environment even after more than 50 years since the accidents took place. About the matter, see T. F. Castillo, 'A contaminação por hidrocarboneto depois da catástrofe do prestige e seu impacto no Direito Internacional e Comunitário' In.: M. D. Varella. *Governo dos riscos* (Rede Latino - Americana – Européia sobre Governo dos Riscos, Brasília, 2005) 216-249, at 226.

415 See A. Nollkaemper, 'What you risk reveals what you value, and other dilemmas encountered in the legal assaults on risks' in D. Freestone and E. Hey, *The Precautionary Principle and International Law* (Kluwer Law International, Leiden, 1996) 73-96, at 91; L. E. Borges, *Les obligations de prévention dans le droit international de l'environnement* (unpublished PhD Thesis on Law, Sorbonne, Paris I, 2013) at 1-2.

416 The concept was developed in his book *Risikogesellschaft. Auf dem Weg in eine andere Moderne* of 1986. The English version: U. Beck, *Risk Society: Towards a New Modernity* (SAGE Publications Ltd, London, 1992).

417 Beck *supra* note 7, at 14-23.

Beck, the replacement of the first modernity by the reflexive modernization (second modernity) meant a paradigm shift from a "class society" to a "risk society".[418] Therefore, the risk issue was placed at the center of the contemporary social theory, based on the criticism of Marxist-influenced sociological theories, which up to that moment tried to explain the modern community based on an industrial class society.[419] This perspective maintains that "what is discussed, in this new context, is the manner in which the damage that results from the production of goods can be distributed".[420]

In sum, the concept of a risk society is crucial to the analysis of the environmental problems. One can list the characteristics of the environmental risks of the second modernity in the following manner: a) they are essentially global and, as a result, they must be managed by the entire international community;[421] b) they are of a very serious nature and are irreversible, as a general rule. Therefore, the compensatory and corrective measures for the damages are mostly ineffective;[422] c) they are the result of political decisions

418 *Ibid.*, at 14-23.

419 As written by L. E. Borges *supra* note 6, at 2: "En ce sens, 'la société du risque ne peut pas être considérée comme une option qui pourrait être choisie ou rejetée, dans le cadre du débat politique', car les risques qui accompagnent les nouvelles technologies sont des conséquences directes et automatiques de la modernisation, dans 'un processus autonome qui est sourd et muet quant à ses dangers'.

420 See J. R. M. Leite, 'Sociedade de Risco e Estado' in J. R. M. Leite and J. J. G. Canotilho, *Direito Constitucional Ambiental brasileiro* (5th ed, Saraiva, São Paulo, 2012) at 132.

421 About the matter, according to C. A. Gomes, 'Subsídios para um quadro principiológico dos procedimentos de avaliação e gestão do risco ambiental' in *Revista de Estudos Constitucionais, Hermenêutica e Teoria do Direito* (Unisinos, São Leopoldo; July/Dec 2011) at 141, the risk went from exceptional (circumscribed to a reduced number of sectors…) to special (relating to especially dangerous activities and starting the responsibility for the risk) and finally, in our times, the general rule, especially in public health and the environment (when translated into a generalized threat).

422 We may cite here as an example, among so many others, the ballast water case: T. V. Zanella, *Água de Lastro: um problema ambiental global* (Juruá, Curitiba, 2010) at 22: "Contrary to other forms of marine pollution, like oil spills, in which the mitigation measures can be taken and the environment can eventually recover, the introduction of marine species is, in most cases, irreversible and not perceptible in the short term. Thus, when observing that an exotic species has been introduced, it is almost always too late to take measures". Also, as UNEP stated in its 12th meeting in 1989: "Recognizing that waiting for scientific proof regarding the impact of pollutants discharged into the marine environment may result in irreversible damage to the marine environment and human suffering". Available at http://www.unep.org/Documents.Multilingual/Default.asp? DocumentID=71&ArticleID=955. Accessed 13 November 2016.

(either for lack of new technologies, by developed policies that are now outdated) and so they must be regulated by human decisions. That is, they are human creations that must be controlled by humanity;[423] d) they reach everybody (normally more than one country is affected, and when that is not the case, the consequences are generally not restricted to a certain State or location), regardless of what caused them.[424]

As the idea of risk is crucial to the analysis of environmental problems, the sciences and the law must have a position to avoid damage, instead of merely trying to repair it. Thus, based on the acknowledgement that society has come up with unacceptable risks without being able to take the appropriate measures to control the situation, the law is called upon to provide answers.[425] In a proactive manner, it is necessary to shift the focus from mitigation and reparation to a preventive attitude.[426] The law, in addition to regulating the current situations and activities, must also try to establish rules for future situations.[427] As a direct result of this risk and the rise of uncertainty, environmental international law needs to anticipate risks to prevent the occurrence of irreparable damage to the environment.[428]

423 Gomes *supra* note 3, at 16-17, makes an interesting distinction between *risk* and *danger*. In sum: "Therefore, danger has natural causes, risk has human causes or, better in negative terms, it has no natural causes". In the opposite sense, says V. Pereira Da Silva, 'Mais vale prevenir do que remediar - prevenção e precaução no direito do ambiente' in J. H. F. Pes and R. S. Oliveira, *Direito Ambiental Contemporâneo - Prevenção e Precaução* (Juruá, Curitiba, 2009) at 12: "I do not believe it is proper to distinguish the scope of prevention in terms of "dangers", resulting from natural causes, and precaution in terms of "risks", which would be caused by human actions, because, in the (post)industrialized societies of our current days, the environmental damage is the result of a set of causes in which it is impossible to distinguish strictly natural facts from human behavior".

424 See Castillo *supra* note 5, at 215.

425 About the matter and, especially, the penal perspective on the matter, see C. Prittwitz, 'La función del Derecho Penal en la sociedad globalizada del riesgo - Defensa de un rol necesariamente modesto' in E. J. P. Alonso (ed), *Derecho, globalización, riesgo y medio ambiente* (Ed. Tirant lo Blanch, Spain, 2012) 415-428.

426 See S. Marr, *The Precautionary Principle in the Law of the Sea: Modern Decision Making in International Law* (Martinus Nijhoff Publishers, Leiden, 2003) at 5-10; M. M. Mbengue, *Essai sur une théorie du risque en droit international public: l'anticipation du risque environnemental et sanitaire* (Pedone, Paris, 2009) at 3.

427 About the need to adjust the international legislation to the current challenges of environmental protection, see T. Evans, 'International Environmental Law and the Challenge of Globalization' in T. Jewell and J. Steele, *Law in Environmental Decision Making* (Clarendon, Oxford, 1998) 207-227.

428 See R. Harding and E. C. Fisher (eds.) *Perspectives on the Precautionary Principle* (The

II. The autonomy of the Precautionary Principle as an independent principle of prevention

The arising of new technologies has reached a stage in which it can no longer safely organize the development, so that uncertainty with respect to technological innovations gives way to unpredictable risks.[429] These uncertainties, according to Ulrich Beck,[430] can lead to two types of risks: a) the concrete or demonstrated risk, in which there are estimated risks for a certain activity, so that there is a possibility of taking preventive measures to act when a disaster is imminent. That is, notwithstanding the fact that it is not certain that it will happen, we know the likelihood or the size of what may happen; b) the abstract or potential risk, in which there is no telling what the possible damage might do. This abstract risk is that which is invisible and unpredictable to human knowledge, although it is likely that the risk exists via similarity or evidence, however incomprehensible. In other words, it is a "risk of a risk", and may eventually never come to fruition.[431] It is by differentiating between these two types of risks that we have the autonomy of prevention as an independent precautionary principle.[432]

In both types of principles, we have the element of risk, but in a different setting. Despite the close connection between the prevention and the precautionary principle, the first is about the adoption of measures that are necessary to take care of foreseeable events, or, in this case, probability; whereas the second is devoted to managing the risks that are not directly predictable.[433] Therefore, prevention has to do with averting the risk for

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Federation Press, Sydney, 1999) at 5-7; Borges *supra* note 6, at 3.

429 In this aspect, M. A. Hermitte *supra* note 4, at 15: "The risk society introduced, between the two poles of predictability and unpredictability, characteristics of the simple causality of modern times – scientific uncertainty and perplexity".

430 See Beck *supra* note 7, at 34.

431 See A. G. F. Martins, *O princípio da Precaução no Direito do Ambiente* (AAFDL, Lisbon, 2002) at 13.

432 See Leite *supra* note 11, at 133.

433 See Martins *supra* note 22, at 65; or, as written by J. Randegger, 'The precautionary principle and responsible risk management' in Council of Europe: Parliamentary Assembly. (Documents: working papers, 2007 ordinary session, first part, 22-26 January 2007, Report Doc. 11119) 161-170**,** at 163, differentiating the principles: "The principle of prevention is applied to situations with a known cause-effect relationship and therefore a clearly defined risk. (…) The precautionary approach, on the other hand, addresses situations of scientific uncertainty".

potential damage, trying to prevent a knowingly dangerous activity from producing the undesirable effects.[434] The precautionary principle, on the other hand, acts on averting the risk of a potential danger, which means that a certain behavior or activity is dangerous in abstract terms.[435]

As Professor Carla Amado Gomes summarized it, "the prevention principle can be translated as: in the imminence of a human action that will seriously and irreversibly damage environmental assets, this intervention must be made".[436] The precautionary principle, in turn, according to Professor Canotilho, "means that the environment must have on its side the benefit of the doubt when there is uncertainty, for lack of clear scientific evidence, about the causal nexus between an activity and a certain environmental pollution or degradation phenomenon".[437] Or also, in the words of Professor Vasco Pereira da Silva: "in a society in which you have more and more risk factors for Nature [...], the shortage and continuity of natural resources make a compelling case for the legal application of the common sense rule of 'better safe than sorry'".[438]

In international law, many instruments establish prevention as a guiding principle in the protection of the environment. The examples are: the Convention on the High Seas, signed in Geneva in 1958, which sets forth the obligation to take preventive measures in order to avoid maritime contamination by radioactive residue;[439] and the 1982 United Nations Convention on the Law of the Sea, which establishes the duty to prevent pollution in areas that are beyond the sovereignty of the States caused by activities performed under their jurisdiction.[440]

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434 See A. Doyle and T. Carney, 'Precaution and Prevention: Giving Effect to Article 13 0r Without Direct Effect' (1999) 2(8) *European Energy and Environmental Law Review,* at 44.

435 On the matter, Pereira Da Silva *supra* note 14, at 12: says "The purpose of the prevention principle is to avoid damage to the environment, which implies an ability to anticipate situations that are potentially dangerous, natural or human in origin, capable of putting the environmental components in risk, so as to allow the adoption of more suitable means to ward off its verification or, at least, to reduce its consequences".

436 See Gomes *supra* note 3, at 22.

437 See J. J. G. Canotilho, *Introdução ao Direito do Ambiente* (Universidade Aberta, Lisbon, 1998) at 48.

438 See Pereira Da Silva *supra* note 14, at 12.

439 Convention on the High Seas. In.: Geneva Convention on the Law of the Sea of 1958. Art. 25, paragraph 1.

440 LOSC. Art. 194, paragraph 2.

The precautionary principle appeared for the first time in the international scene in 1987 during the Second International North Sea Conference on marine ollution.[441] For this reason, it can be said that "the precautionary principle is an idea that came from the law of the seas".[442] Since then, other international texts include precaution as a behavioral[443] duty of the State.[444] Citations include: the 1990 Bergen Ministerial Declaration on Sustainable Development; principle 15 of the Rio Declaration;[445] Article 3 of the United Nations Framework Convention on Climate Change; and paragraph 22.5 of Agenda 21.[446]

Even with the existence of a conceptual distinction – often ambiguous and not very clear – created by the doctrine and cited in several international documents as autonomous forms, several authors do not distinguish between the two principles.[447] There are also those who regard the precautionary principle as a simple variation of the duty to prevent, that is, a natural

441 See E. Hey, 'The precautionary approach: Implications of the revision of the Oslo and Paris Conventions' (1991) 15 *Marine Policy* 244-254, at 245; the origin of the concept dates back to the German legislation ("vorsorgeprinzip") of 1976, which reiterates the terms of the Wingspread Declaration of 1970. In this sense, see N. Schrijver, *The evolution of sustainable development in international law: Inception, meaning and status of sustainable development* (Pocketbooks of the Hague Academy of International Law, Martinus Nijhoff Publishers, Leiden, 2008) at 184.

442 See O. McIntyre and T. Mosedale, 'The Precautionary Principle as a Norm of Customary International Law' (1997) 9(2) *Journal of Environmental Law* 221-241 at 224.

443 See Borges *supra* note 6; in his doctoral thesis he conducted an interesting investigation about the prevention and precaution principles as an obligation of behavior and an obligation of result.

444 According to A. Trouwborst, 'The Precautionary Principle and the Ecosystem Approach in International Law: Differences, Similarities and Linkages' (2009) 18 (1) *Review of European Community and International Environmental Law* 26-37, at 27: "Currently, the precautionary principle can be found in or under more than 60 multilateral environmental treaties, as well as a myriad of political declarations, resolutions and action programmes, covering a great variety of issue areas".

445 The Rio Declaration on Environment and Development, 1992. Principle 15.

446 About the use of the precautionary approach in international documents, see A. Gillespie, 'The Precautionary Principle in the Twenty-First Century: A Case Study of Noise Pollution in the Ocean (2007) 22(1) *The International Journal of Marine and Coastal Law* 61-87, at 67-70.

447 See D. Bodansky, 'Deconstructing the Precautionary Principle' in D. D. Caron and H. N. Scheiber (eds.) *Bringing New Law to Ocean Waters* (Brill, Leiden, 2004) Chapter 16, 381-391.

continuation.[448] The close connection between the two cannot be denied, because both work with the idea of anticipating risks, but the precautionary principle goes beyond the classical logic of the preventive approach to a new culture of risk, as it is applied in a context of uncertainty.[449] In the classical prevention logic, only a proven risk justifies the adoption of early measures. That is, only after recognizing the possibility of damage can the international law regulate a certain activity to prevent its occurrence; whereas, in the precautionary logic, there is no direct prediction for possible damage.[450]

Despite the similarities, at least two fundamental differences make these two principles independent of each other. First, the preventive approach is applied to risks that are fully understood, or at least they are likely, whereas the precautionary approach works with possible risks, which are not known for sure, that is, the effects of such an activity on the environment are not entirely known.[451] Second, the *modus operandi* of the precautionary principle is completely different from the one in prevention, because it does not have the purpose to be applied *ad infinitum*.[452] In these terms, science has a completely different role in precaution than it has in prevention. From the moment that technological progress and uncertainties are reduced, precaution loses its role, as the risks and damage of each activity become

448 As stated by M. Faure and N. Niessen, *Environmental Law in Development* (Edward Elgar Publishing Limited, Massachusetts, 2006) at 46: "The precautionary principle is nothing more than an extension of the prevention principle (…)"

449 See McIntyre and Mosedale *supra* note 34, at 222; A. Trouwborst, 'Prevention, Precaution, Logic and Law: The Relationship Between the Precautionary Principle and the Preventative Principle in International Law and Associated Questions' (2009) 2(2) *Erasmus Law Review* 105-128, at 105-106.

450 See Marr *supra* note 17, at 10; Or also, as stated by B. Sage-Fuller, *The Precautionary Principle in Marine Environmental Law* (Routledge, New York, 2013) at 68.

451 About the matter, J. Cazala, *Le principe de précaution en droit international* (Anthemis, Paris, 2006) at 10 says: "la précaution intervient dans les situations de risques possibles, soupçonnés, mais ni connus, ni 'probabilisables'". Also, see F. Ossembühl, *Vorsorge als Rechtsprinzip im Gesundheits – Arbeits- und Umweltschutz* (Neue Zeitschrift für Verwaltung, Heft 3, 1986) at 162. Last, the same distinction is made by A. Kiss, 'The Rights and Interests of Future Generations and the Precautionary Principle' in D. Freestone and E. Hey (eds), *The Precautionary Principle and International Law* (Kluwer Law International, Leiden, 1996) 19-28, at 27.

452 See G. J. Martin, 'Principe de précaution, prévention des risques et responsabilité: quelle novation, quel avenir?' (2005) 40 *Actualité Juridique Droit Administratif* 2222-2226, at 2224.

known.[453] Thus, the level of scientific knowledge will determine if it is a case of applying prevention or precaution – or neither.[454]

III. The modus operandi of the Precautionary Principle in International Environmental Law

As was said before, the *modus operandi* of the precautionary principle is completely different from that of prevention, and it carries its very own unique characteristics. At this point, two very peculiar aspects of precaution will be studied in the way they operate in international environmental law. First, the so-called *in dubio pro natura* will be analyzed, in which the benefit of the doubt always falls on the environment. Then, the matter of shifting the burden of proof will be investigated, as it is a crucial precept for the autonomy of precaution as a principle that belongs to international environmental law.

1. The benefit of the doubt and the risk of error in favor of the environment – in dubio pro natura

The precautionary principle has very peculiar characteristics, and it has its own way of operating in international environmental law. First, once again, we need to bear in mind that the damage to the environment – especially for the seas and the oceans – is, as a general rule, hard or impossible to correct. Therefore, proactive and safe actions are required. Having said that, the adoption of this principle for every possibility in the urge to prevent each and every risk[455] could result in ineffectiveness and could stop all human activities.[456]

The strict application of the precautionary approach – as small as the level

453 J. B. Wiener, *'Precaution'* in D. Bodansky, J. Brunnée, E. Hey (eds.) *The Oxford handbook of International Environmental Law* (Oxford University Press, Oxford, 2007) at 610.

454 About the difficulty in determining which principle to apply, see Trouwborst *supra* note 41, at 119.

455 See C. A. Gomes, 'A Procteção Internacional do ambiente na Convenção de Montego Bay' (2008) *Textos dispersos de Direito do Ambiente* 189-221, at 211.

456 About the matter, Professor Vasco Pereira da Silva says that the idea of precaution as an *in dubio pro natura* principle is inadequate because it carries an excessively inhibiting load, as it is impossible to have "zero risk" in the environmental area. See V. Pereira Da Silva, *Como a Constituição é verde: os princípios fundamentais da Constituição Portuguesa do Ambiente* (AAFDL, Lisbon, 2001) at 19; V. Pereira Da Silva, *Verde cor de Direito: Lições de Direito do Ambiente* (Almedina, Coimbra, 2003) at 69-70.

of damage caused by an act may be – could cause its own collapse, because using it for every risk would be materially impossible. In these terms, its adoption would lead to a complete distortion of its purpose, because only the activities that provided absolute certainty of harmlessness would be freely executed.[457] This possibility would be completely unrealistic, and the concept of a risk society would be totally inverted. In sum, the precautionary approach used in absolute terms would result in a hypertrophy of "not doing", which would cause a complete social paralysis.[458]

In view of this situation, the precautionary principle may initially operate in international environmental law in two distinct ways: a) only being admitted when there is scientific certainty that a certain activity puts the environment in risk and has a high probability of causing damage to the environment; b) being accepted in the absence of scientific certainty about the possibility of damage, and uncertainty as to the results of such an activity would be enough for its application.[459]

If the first option is used, the precautionary approach fades away as an autonomous principle, and it becomes the same – or it becomes a simple branch – as prevention, as they would have the same practical application in international law. The second option, in turn, could result in its lack of application and operation, because – if it is not regulated in very effective terms – it could be applied to each and every human act, causing the so-called "social hypertrophy".[460]

However, it is not about being better safe than sorry at any cost.[461] It is

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457 See C. Tinker, 'State Responsibility and the Precautionary Principle' in D. Freestone E. Hey (eds0 *The Precautionary Principle and International Law* **(**Kluwer Law International, Leiden, 1996) 53-72, at 67.

458 See J. Areosa, *O risco no âmbito da teoria social*. In VI Portuguese Sociology Congress (Lisbon 1-16), at 4: "Slightly ironic, Douglas and Wildavsky (1982: 10) declare that people are not afraid of anything, except the food that they eat, the water that they drink, the air that they breathe, the land where they live, and the energy that they use."

459 See Gomes *supra* note 3, at 35.

460 See J. Zander, *The Application of the Precautionary Principle in Practice* (Cambridge University Press, New York, 2010) at 14; and about the price to be paid to implement the precautionary approach, see C. Munthe, *The Price of Precaution and the Ethics of Risk* **(**Springer, Heidelberg, London, New York, 2011) at 3.

461 See C. R. Sunstein, 'Para além do princípio da precaução' (2006) 37 *Notadez*, 119-173, at 168.

about *in dubio pro natura*.[462] That is, the environment is given the benefit of the doubt when there is uncertainty with respect to the effects of a certain activity on it. In these terms, when it is unclear whether or not a certain activity can cause serious damage to the environment, the risk of error must be favored.[463] That is, in case of doubt, it is better to run the risk in terms of protecting the environment, because without running the risk, you are possibly exposing the environment to irreparable damage.

Taking the approach of early intervention is required to prevent possible damage to the environment in the cases in which the best information available is not able to confirm the level of damage of the activity.[464] Having said that, the question then becomes: how do we know the reasonable motives of concern in order to apply the precautionary principle, as there is no zero risk in international environmental law?[465] In this sense, there is no calculated answer for this question, considering the many variables that must be taken into account to decide whether or not to apply the precautionary principle in a certain situation. It is only on a case-by-case basis that we are able to define if the activity is reasonable.

However, a few parameters serve as guiding principles to apply such an approach in environmental international law: a) a minimum probability of causing environmental damage; b) the severity of the possible damage.[466] In these terms, for its use, we need to take into consideration the ratio between these two requirements and the real effectiveness of the precautionary measures to be adopted. The ratio and the effectiveness must ponder – always analyzing the probability and the severity – if the actions correspond to the magnitude of the risks involved, in order to avoid the adoption of excessively strict measures. This way, the greater the added risk, the more rigorous the preventive measure, and vice-versa.[467]

462 Expression used by several authors, particularly by Trouwborst *supra* note 41, at 108; A. Trouwborst, *Precautionary Rights And Duties of States* (Koninklijke, Netherlands, 2006) at 190. Gomes *supra* note 3, at 37, prefers the expression "*in dubio pro ambiente*".

463 See *supra* note 3, at 37.

464 See Trouwborst *supra* note 36, at 27; Or, as the same author summarizes in another work, Trouwborst *supra* note 41, at 110: "'*In dubio pro natura*' and 'erring on the side of environmental protection' accurately reflect the gist of the precautionary principle in general international law".

465 See Zander *supra* note 52, at 13.

466 See Trouwborst *supra* note 41, at 110.

467 About the matter, Trouwborst *supra* note 41, at 110 says: "Various guidelines help

Once again, these parameters must always analyze the concrete case, under penalty of total ineffectiveness of the principle in the international society. That is, the precautionary approach always has to consider the costs and the benefits of each precautionary measure to be adopted, because the dangers of a misuse of the principle may result in unnecessarily alarmist actions.[468] The Rio Declaration itself, in principle 15, emphasizes that the precautionary approach is only to be used "where there are threats of serious or irreversible damage" and that the precautionary measures must be "cost-effective"[469] to be applied in international law.

2. Shifting the Burden of Proof

Another issue is very controversial in international environmental law, namely the burden of proof of the possible damage. To be more precise, the precautionary approach brings a reversal of this burden to prove the damage, that is, with the use of this principle, it is up to the agent of the possible damage (or the public authority that authorized the activity – such as the State responsible for it) to prove that it will not damage the environment.[470] Such a statement entails, once again, enormous risk of social paralysis and inefficacy of the principle in international law, "considering that the proof of the absolute harmlessness of the eventually polluting activity would be a real *diabolica probation*".[471] In other words, shifting the burden of proof must be applied with caution as it might be impossible to paralyze every activity before proving that it would not harm the environment.[472]

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establish what, in concrete instances, constitutes effective and proportional action. Such action should, among other things, be (1) timely; (2) tailored to the circumstances of the case; and (3) regularly reviewed and maintained as long as necessary to prevent the harm involved, but not longer".

468 See Doyle and Carney supra note 26, at 47.

469 The Rio Declaration on Environment and Development, 1992. Principle 15.

470 See Trouwborst *supra* note 41, at 110; S. M. Garcia, 'The Precautionary Principle: its Implications in Capture Fisheries Management' 1994 (22) *Ocean & Coastal Management* 99-125, at 106; W. Gullett, 'Environmental protection and the precautionary principle: a response to scientific uncertainty in environmental Management' (1997) 14 (2) *Environmental and Planning Law Journal* 52-69, at 59-60.

471 See Gomes *supra* note 3, at 38.

472 See Gillespie *supra* note 38, at 71, note n. 68, who says that there are proponents of a weak approach and those who believe that the precautionary approach must be used in

On the other hand, without this shift, the precautionary approach would be extremely limited.[473] If the duty of the burden does not fall on the possible polluting agent, there is simply no one to prove its damaging character. That is, the precautionary approach would remain only an autonomous guiding principle of international environmental law. The scientific uncertainty of the effects of a certain activity on the environment is a *sine qua non* condition of the precautionary approach. Therefore, whoever undertakes the duty to analyze the consequences of an activity must be the one who wishes to properly scrutinize this activity so that there is greater protection and environmental safety. Otherwise, it would be up to the one suffering from the possible consequences to prove the damage of each activity and exploration that might harm its environment, which would be impractical.[474]

Also, if this obligation of producing evidence and scientific certainty would fall on the ones suffering from the damage, what would happen if, on account of inertia, lack of technology or even lack of will, nothing was proved? That is, if the proof was not produced and it was not proven that the activity is harmless nor that it is harmful? Would the activity be prohibited based on the precautionary approach, because that, without the certainty of the results, it would be forbidden? This way we would go back to the biggest problem and the risk of the irrational use of this principle, because no activity would be allowed without the suffering party having to demonstrate first the possible consequences to the environment. The environment would depend on the goodwill of the subject – who often can be found not to take interest or be afraid of suffering irreversible environmental damage – to prove that a certain activity may or may not be conducted in his area.[475]

There is still a great deal of divergence with respect to shifting the burden of proof, especially in the jurisprudence. In practice, the international and

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a stronger fashion. According to the author, one of the first dilemmas is precisely the reversal of the burden of proof.

473 See F. Gonzalez-Laxe, 'The precautionary principle in fisheries management' (2005) 29 *Marine Policy* 495–505, at 496.

474 See Gomes *supra* note 3, at 36.

475 An example of its implementation can be found in Annex I (The Principle of Precautionary Action) of the *"Final Declaration of the First European Seas At Risk Conference"*, Copenhagen, 26-28 October 1994: "3. The burden of proof is shifted from the regulator to the person or persons responsible for the potentially harmful activity, who will now have to demonstrate that their actions are/will not cause harm to the environment".

national courts have varied significantly in their decisions.[476] Although the doctrine has moved toward an understanding that the shift is necessary for the effectuation of the precautionary approach and for more protection of the environment,[477] many courts, especially international courts, have difficulty in applying this.[478]

We can mention the 2010 International Court of Justice (ICJ) case of the pulp mill at the Uruguay River, in which the parties were Argentina and Uruguay.[479] In summary, Argentina questioned the construction and production of a pulp mill on a river that borders both countries, based on a bilateral agreement. Argentina argued that, based on the precautionary principle, the mill could not operate in such a location, because it could pose a serious risk of irreparable environmental damage.[480] Therefore, Argentina

476 See Gillespie *supra* note 38, at 72.

477 Several authors disagree with such a shift, and even with the precautionary approach being an autonomous principle of international environmental law. For example, J. Cameron and J. Abouchar, 'The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment' (1991) 14 (1) *Boston College International and Comparative Law Review*; Bodansky *supra* note 39, at 390-391; P. H. Sand, 'The Precautionary Principle: A European Perspective' (2000) 6 *Human and Ecological Risk Assessment* 445–458, at 448, who understands that shifting the burden of proof would be the "most radical variant" of the precautionary principle.

478 It is not our purpose here to provide an in-depth analysis of the way the national courts of each country apply the precautionary principle and the shift of the burden of proof; however, as an example, we can mention the text by Jacqueline Peel on the application of this principle in the Australian jurisprudence: J. Peel, 'Interpretation and Application of the Precautionary Principle: Australia's Contribution' (2009) 18(1) *Review of European Community and International Environmental Law* 11-25, at 21: "If the two conditions precedent or thresholds of the precautionary principle were met, the legal result, according to the court, was to shift the burden of proof to the development proponent to demonstrate that the 'threat does not in fact exist or is negligible'".

479 ICJ Reports. Pulp Mills on the River Uruguay (Argentina v. Uruguay). 4 May 2006. Available at http://www.icj-cij.org/docket/files/135/15877.pdf. Accessed 17 November 2016. About the case, see D. Kazhdan, 'Precautionary Pulp: Pulp Mills and the Evolving Dispute between International Tribunals over the Reach of the Precautionary Principle' (2011) *Ecology Law Quarterly* 527-552.

480 Pulp Mills on the River Uruguay – Argentina v. Uruguay – ICJ – Oral Proceedings, CR 2009/12, p. 66, para. 28: "Even if the risks of serious harm may in some circumstance appear to be merely potential, the precautionary principle requires "[the adoption of] cost-effective measures to prevent environmental degradation" ("l'adoption de mesures effectives visant à prévenir la dégradation de l'environnement"). Available at http://www.icj-cij.org/docket/files/135/15471.pdf . Accessed 17 November 2016.

said that the burden to prove whether or not there were serious risks of damage to the environment was on Uruguay, and until it was proven that such an undertaking did not represent a real threat to the environment, they should shut it down. However, ICJ explicitly denied the reversal of the burden of proof in this case and kept the mill in operation, even without knowing exactly the consequences of such activity.[481] The ICJ's judgment was based on extremely technical aspects of the bilateral agreement – which did not contemplate the reversal of the burden of proof – and not on the broad application of the precautionary principle.[482]

The World Trade Organization (WTO) also had the chance to analyze the precautionary principle and the reversal of the burden of proof.[483] However, the legal bodies of the WTO have consistently assigned the burden of proof to the complainant.[484] This is the case of the hormones in cattle meat in which the European Union prohibited imported North American and Canadian meat treated with hormones.[485] The WTO reviewed the case and understood that the burden to prove that the food was harmful to human health was on the complainant.[486] It also considered that the precautionary principle needed to be better regulated internationally to be applied in international trade, but said that this principle could be used in exclusively environmental issues.[487] [488]

We also have to mention the case law of the International Tribunal for the Law of the Sea (ITLOS) on the matter. The reality is that the Tribunal has not explicitly made its view of the shift of the burden of proof in the application

481 See Kazhdan *supra* note 71, at 528.

482 ICJ Reports. Pulp Mills on the River Uruguay (Argentina v. Uruguay). at 61, para. 164.

483 About the matter, see H. Horn and P. C. Mavroidis, 'Burden of Proof in Environmental Disputes in the WTO: Legal Aspects' (2009) 18(2) *European Energy and Environmental Law Review* 112–140.

484 *Ibid.,* at 79.

485 EC Measures Concerning Meat and Meat Products, WTO AB 16 January 1998.

486 *Ibid.,* at 35-40.

487 *Ibid.*, WT/DS26/AB/R, WT/DS48/AB/R, pp. 45 and 46, para. 123.

488 This same position was repeated by the WTO panel on the Biotech case in 2006. EC Measures Affecting the Approval and Marketing of Biotech Products, WTO 29 September 2006, WT/DS291/R, WT/DS292/R, WT/DS291/R. In this case, it was said that the precautionary principle is established in many international treaties, but almost exclusively for the environment. In addition, the principle has been referred to and applied by the national States in domestic environmental law.

of the precautionary principle public. On 1 February 2011, the ITLOS, in an advisory opinion on the "Responsibilities and obligations of states sponsoring persons and entities with respect to activities in the Area",[489] strongly stressed the application of the precautionary approach; however, it did not mention the possibility of shifting the burden of proof. We analyze this opinion further, because of its huge importance to the use of the precautionary principle in the law of the sea.[490]

IV. The precautionary approach as a guiding principle for the environmental protection of the sea – from theory to practice

So far, this paper has analyzed the precautionary principle in general theoretical terms and investigated its new meanings for the international environmental law. Now, let us study how these theoretical aspects are applied in international law for the environmental protection, especially the marine environment. The purpose now is to study how the international practice has used the precautionary principle to protect the marine environment from pollution and degradation.

In this sense, once again we can say that the precautionary approach is an idea that came from the law of the sea and quickly spread to other international conventions. However, even though it is posited in several texts, the exact definition and the way it was used in international law went through a phase of uncertainty and great controversy.[491] Some authors include the precautionary approach in the list of general principles of law, whereas others prefer to include it in customary rules[492] and others even deny its status as a legal principle due to its great inaccuracy.[493] Particularly in the 1990s and at the

489 ITLOS. *Responsibilities and obligations of states sponsoring persons and entities with respect to activities in the area. Advisory opinion.* 1 February 2011.

490 In addition to this opinion, the ITLOS, in other cases, that the precautionary principle should be a guiding principle of marine law. We may cite here the Southern Bluefin Tuna case and the MOX Plant Case. Even if the merits of the cases were not analyzed, the ITLOS could reaffirm the importance of the precautionary approach for the marine environment. Because in none of these cases the ITLOS analyzed the shift of the burden of proof, these cases are not addressed here. We analyze specifically the jurisprudence of the ITLOS on the precautionary approach and both cases are studied in depth.

491 See Marr *supra* note 17, at 21.

492 See McIntyre and Mosedale *supra* note 34, at 221.

493 See B. Charmian, 'The Status of the Precautionary Principle in Australia: Its Emergence

beginning of the 21st century, when the principle appeared in international conventions, without a clear definition of its application, a great number of legal scholars were concerned about accepting the precautionary approach as an imperative principle of law.[494]

Besides, the greatest contestants of the precautionary approach have always been the States themselves, which, afraid of its limitless use, preferred to see it as a mere guideline[495] and not as a binding principle. The fear of the States was justified in view of the initial uncertainties about the mode of utilization, apparently very subjective, with the potential of preventing each and every activity for merely not having concrete data about the environmental consequences. That is, in the urge to preven each and every risk that might stop every human activity, a social hypertrophy of "not doing" would result.[496]

However, the uncertainties gradually dissipated, and the precautionary approach started to be developed, particularly in the case law, as a guiding principle of international environmental law, with aspects that are more precise and objective. The law of the sea has had an important role in this evolution. It was in this legal field that the precautionary approach came to existence and evolved with greater accuracy.[497] Thus, we now analyze how the precautionary approach is applied to protect the seas.

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in Legislation and as a Common Law Doctrine' (1998) 22 *Harvard Environmental Law Review,* at 509; A. Fitzgerald & J. Ellis, 'The Precautionary Principle in International Law: Lessons from Fuller's Internal Morality' (2004) 49 *McGill Law Journal* 779-800.

494 About the matter, Gomes *supra* note 47, at 211 says: "To us, the greatest risk of assumption of precaution as a principle – although with the entire vagueness of a principle, by definition, has – is of the tendency to overvalue certain values – *maxim,* in which here it directly matters, the natural resources – to the detriment of others, abstracting any ponderation and in the absence of minimally conclusive scientific proof".

495 See J. M. Macdonald, 'Appreciating the precautionary principle as an ethical evolution in ocean management' (1995) 26(3) *Ocean Development & International Law* 255-286, at 269.

496 See Bodansky *supra* note 39, at 384-385.

497 See Sage-Fuller *supra* note 42, at 62; C. E. Foster, *Science and the Precautionary Principle in International Courts and Tribunals* (Cambridge University Press, Cambridge, 2011) at 138; L. B. Chazournes, 'Precaution in International Law: reflection on its composite nature' in T. M. Ndiaye and R. Wolfrum (eds), *Law of the Sea, Environmental Law and Settlement of Disputes* (Martinus Nijhoff Publishers, Leiden, 2007) 21-34, at, 25.

1. The jurisprudence of the ITLOS in the application of the precautionary approach for the protection of the marine environment

It is precisely in the ITLOS that, over the last few years, the precautionary approach has developed the most and was applied as a guiding principle of marine protection and in international environmental law. For this reason, the jurisprudential analysis of the ITLOS is imperative on this matter. We study three cases analyzed by the ITLOS that have this important role: the *Southern Bluefin Tuna Cases*, the *MOX Plant Case*, and the *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*.

a) The Southern Bluefin Tuna Case

The ITLOS was called upon in 1999 by Australia and New Zealand against Japan[498] to settle a controversy about the fishing of the southern bluefin tuna.[499] [500]

First, it is necessary to keep in mind that the southern bluefin tuna (*Thunnus maccoyii*) is one of the highly migratory species regulated by Article 64 of the LOSC. Therefore, the LOSC already established that the States whose nationals fish for this species must cooperate to ensure its conservation and promote its optimal utilization in view of the over-exploitation risks caused by nationals of a State to the harm of the others.[501] For this reason, in 1982,

498 Despite being about the same subject, Australia and New Zealand called upon the ITLOS separately. The ITLOS joined the proceedings to analyze both complaints together (*Southern Bluefin Tuna Cases (New Zealand v. Japan; Australia v. Japan), Provisional Measures*). However, regarding the numbering of the cases, the ITLOS refers to the New Zealand case as No. 3 and the Australian case as No. 4.

499 Also called "Southern Bluefin Tuna", "Blue Tuna"; or "Southern Tuna". The scientific name is *Thunnus maccoyii*.

500 Southern Bluefin Tuna Cases (New Zealand v. Japan; Australia v. Japan), Provisional Measures. All the documents are available at http://www.itlos.org/index.php?id=62&L=1AND1%3D1. Accessed 19 November 2016. About the case, see N. Ando, 'The Southern Bluefin Tuna case and dispute settlement under the United Nations Convention on the Law of the Sea: a Japanese perspective' in T. M. Ndiaye & R. Wolfrum, *Law of the Sea, Environmental Law and Settlement of Disputes* (Martinus Nijhoff Publishers, Leiden, 2007) 867-876; C. Romano, 'The Southern Bluefin Tuna Dispute: Hints of a World to Come … Like It or Not' (2001) 32 *Ocean Development & International Law* 312-348.

501 LOSC. Art. 64.

Japan, Australia and New Zealand initiated a program to restore the stocks of tuna until the year 2020. Four years later, in 1986, these States were able to reduce fishing by 40%.[502] In view of this great progress, the three States decided to sign, on 10 May 1993, an international agreement to keep protecting and preserving the species and, on 20 May 1994, the Convention for the Conservation of the Southern Bluefin Tuna was in force.[503]

However, Japan stated that from 1999 to 2001 it was going to conduct a unilateral experimental fishing program on the species, increasing exploitation beyond what was established by the Commission for the Conservation of Southern Bluefin Tuna. The decisions of the Commission are made by a unanimous vote of the three members.[504] In May 1994, when the first meeting of the Commission was held, the Total Allowable Catch (TAC) was set at 11,750 tons, divided in the following manner: 6,065 tons for Japan; 5,265 tons for Australia; and 420 tons for New Zealand.[505] However, since 1998, the Commission has not been able to reach an agreement on a new TAC.[506] Japan, which was not satisfied with the quota, then decided to increase fishing for the aforementioned tuna unilaterally through this so-called experimental fishing program.[507]

In view of Japan's attitude, which is contrary to the Convention and to the interests of Australia and New Zealand, both latter States requested the constitution of an arbitral tribunal in accordance with Annex VII of the

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502 See S. Rosenne, 'The International tribunal for the Law of the Sea: survey for 1999' (2000) 15(4) *The International Journal of Marine and Coastal Law* 443-474, at 464.

503 Convention for the Conservation of Southern Bluefin Tuna. Available at http://www.ccsbt.org/userfiles/file/docs_english/basic_documents/convention.pdf. Accessed 19 November 2016.

504 Rules of Procedure of the Commission for the Conservation of Southern Bluefin Tuna. Rule No. 6.

505 Data available at http://web.archive.org/web/20020612124922/www.ccsbt.org/docs/manage ment.html. The current TAC data can be found at http://www.ccsbt.org/site/total_allo wable_catch.php. Both were accessed 19 November 2016. Currently, South Korea, Taiwan and Indonesia are also members of the Commission.

506 See D. Bialek, 'Australia and New Zealand v Japan: Southern Bluefin Tuna Case' (2000) 1(1) *Melbourne Journal of International Law* 153-161, at 153.

507 See S. Marr, 'The Southern Bluefin Tuna Cases: the precautionary approach and conservation and management of fish resources' (2000) 11(4) *European Journal of International Law* 815-831, at 816.

LOSC.[508] Furthermore, because they needed to put an immediate stop to the Japanese catch that went beyond the accorded TAC, these States also asked the ITLOS for a provisional measure, pursuant to Article 290, paragraph 5 of the LOSC; the arbitral tribunal was not required to analyze the merits of the complaint.[509]

The basis for the request for a provisional measure was the need for a precautionary attitude, because it was unknown whether the increase in the annual catch would cause irreversible damage to the number of southern bluefin tuna in the oceans.[510] The main argument was that the scientific uncertainties about the exploitation of the species beyond the quota established in 1994 would not allow anyone to say that the tuna would be able to survive so as to at least keep its population stock.[511]

In a decision rendered on 27 August 1999, the ITLOS accepted, with a majority of votes, the request for a provisional measure. The ITLOS ordered, among other measures, the immediate suspension of Japan's experimental fishing program until the arbitral tribunal analyzed the merits of the case.[512] The ITLOS stated that "the parties should in the circumstances act with prudence and caution to ensure that effective conservation measures are taken to prevent serious harm to the stock of southern bluefin tuna".[513] That is, the ITLOS said that, in view of the lack of scientific evidence, the exploitation of tuna above the previously established quota could cause serious damage to the stock of the species. Therefore, it ordered the suspension of the over-exploitation based on "prudence and caution".[514]

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508 The Arbitral Tribunal is the only mandatory means to solve controversies at the LOSC, that is, only this tribunal may be constituted without the consent of the parties. In this interim period, it is worth mentioning that the three States were already in 1999 signing members of the LOSC: Japan ratified the LOSC on 20 June 1996; Australia did so on 5 October 1994; and New Zealand on 19 July 1996.

509 The requests for provisional measures were submitted on 30 July 1999: Request for the Prescription of Provisional Measures Submitted by Australia; Request for the Prescription of Provisional Measures Submitted by New Zealand.

510 Request for the Prescription of Provisional Measures Submitted by New Zealand. p. 8.

511 See Marr *supra* note 99, at 816.

512 Southern Bluefin Tuna Cases (New Zealand v. Japan; Australia v. Japan), Provisional Measures. Order. 27 August 1999 at 16-17.

513 *Ibid.*, at 14, para. 77.

514 See Y. Cho, 'Precautionary Principle in the International Tribunal for the Law of the Sea' (2009) *Sustainable Development Law and Policy* 64-90, at 64; T. Stephens, *International*

Although the ITLOS did not expressly mention the precautionary principle[515] at any time, and much less worked on the concept, content and manner of application, this decision was very important in the development of the precautionary approach in international environmental law. First, in the matter of marine living resources, for the first time, an international court ordered the suspension of an activity based on scientific uncertainty.[516] Second, in doing so, it offered an incentive to fishing nations everywhere to cooperate in managing and preserving fishing resources by signing multilateral agreements, as stated in the LOSC itself.

This way, in sum, the ITLOS decision in the case of the southern bluefin tuna was an important milestone for the evolution of the concept and the practical application of the precautionary principle. Even though the ITLOS did not analyze and develop the theme with more precision and in depth, this decision had the merit of applying the precautionary principle in an actual case of conservation of marine natural resources.

b) The MOX Plant Case

The MOX Plant case[517] was a conflict between Ireland and the United Kingdom about the construction and operation of a nuclear fuel processing plant in Sellafield, located in the northwest of England, at the border of the Irish Sea.[518] The argument was that the operation of this plant had not been duly analyzed and that there were uncertainties with respect to the possibility of marine pollution by nuclear waste. Ireland requested in June 2001 the constitution of an *Ad Hoc* Arbitral Tribunal under the 1992 OSPAR Convention (Convention for the Protection of the Marine Environment of

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Courts and Environmental Protection (Cambridge University Press, Cambridge, 2010), at 225.

515 See Marr *supra* note 99, at 819.

516 This provisional measure was later struck down by the Arbitral Tribunal in conformity with Annex VII of LOSC to decide on the matter of the controversy, which upheld the Japanese position that there was no jurisdiction to judge the case (based on LOSC Article 282), because there was a regional treaty about the matter.

517 Acronym for Mixed Oxide Fuel. All the documents regarding the case in the ITLOS can be found at http://www.itlos.org/index.php?id=102&L= 1AND1%3D1. Accessed 21 November 2016. *The MOX Plant Case (Ireland v. United Kingdom), Provisional Measures.*

518 In this sense, Stephens *supra* note 106, at 232 says: "As no nuclear facilities in the United Kingdom currently use the mixed uranium and plutonium fuel to generate electricity, MOX fuel is intended for export, via the Irish Sea".

the North-East Atlantic).[519] In October 2001, it requested the constitution of an Arbitral Tribunal according to LOSC Annex VII . However, before analyzing the merits of the case, Ireland applied to the ITLOS for provisional measures to order the immediate suspension of the activities conducted by the United Kingdom in the nuclear plant, because it understood the measure to be urgent and of difficult further repair. In the end, the European Court of Justice was also called upon because of EURATOM.[520]

Ireland based its argument to the ITLOS for provisional measures to immediately stop the activities at the MOX Plant on the precautionary principle. According to Ireland, the harmful effects of the plant on the marine environment of the region were unknown and might cause serious and irreversible environmental damage. Also, the Irish request declared that the United Kingdom should prove that this activity would be harmless to the environment and that preventive measures, before the scientific proof, were required.[521]

In a decision rendered on 3 December 2001, the ITLOS did not recognize the request of Ireland because it held that the plant did not pose serious damage to the marine environment and that Ireland was not able to prove the urgency and severity of the potential damage.[522] For the ITLOS, Ireland did not provide evidence of irreparable damage to its rights or serious damage to the environment as a result of the operations at the MOX plant and that, as a consequence, the precautionary principle did not apply in that provisional measure.[523]

519 Regarding the constitution of the *ad hoc* tribunal based on the OSPAR Convention, see B. Volbeda, 'The MOX Plant Case: The Question of "Supplemental Jurisdiction" for International Environmental Claims Under LOSC' (2006) 42 *Texas International Law Journal* 211-240, at 214.

520 About this legal "congestion", see B. L. Hicks, 'Treaty Congestion in International Environmental Law: The need for Greater International Coordination' 32 (1999) *University of Richmond Law Review* 1643-1674, at 1643, which uses the expression "treaty congestion" for international environmental law.

521 Request for Provisional Measures and Statement of Case submitted by Ireland, at 45, para. 101.

522 See Stephens *supra* note 106, at 237; Cho *supra* note 106, at 64.

523 *The MOX Plant Case (Ireland v. United Kingdom), Provisional Measures.* Available at http://www.itlos.org/fileadmin/itlos/documents/cases/case_no_10/Order.03.12.01.E.pdf. Accessed 21 November 2016. Also: Joint Declaration of Judges Caminos, Yamamoto, Park, Akl, Marsit, Eiriksson and Jesus: "Under these circumstances of scientific uncertainty, the Tribunal might have been expected to have followed the

Notwithstanding the refusal by the ITLOS to apply the precautionary principle, the decision was extremely important to set the standards and more objective rules to the utilization of this principle.[524] To avoid the excessive use of the precautionary approach, which could diminish its international legitimacy as a result, the ITLOS seized the opportunity to clarify the scope and limits of its utilization. In doing so, it emphasized the need to specify the severity of the potential damage to the marine environment.[525] Thus, to invoke the precautionary principle, the damage to be prevented cannot be general and abstract; it must be identifiable and clear. In addition, the threat must pose serious or irreversible damage to the environment, which was not proven in the MOX Plant case, especially because it was a provisional measure and not the analysis of the merits of the case.[526]

In sum, in addition to reaffirming that the precautionary principle cannot be used without restriction, this case served as a start to the establishment of more objective limits and standards for the preventive approach. In international environmental law, not every scientific uncertainty can prevent the society from conducting its activities and explorations. However, it is clear from the ITLOS's decision that the precautionary approach must be a guiding principle in the law of the sea.

c) Responsibilities and obligations of the States in the activities in the Area

Among the cases analyzed by the ITLOS, and maybe in all the international courts, the Advisory Opinion of 1 February 2011 regarding the "Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area"[527] is the most significant. In this Advisory Opinion, the ITLOS made clear the terms in which the precautionary approach must be used in international environmental law, contributing very significantly to the development of this principle.[528]

path it took in the Southern Bluefin Tuna Cases to prescribe a measure preserving the existing situation. In its wisdom, it did not do so. It decided, in the circumstances of the case, that, in the short period before the constitution of an arbitral tribunal under Annex VII to the United Nations Convention on the Law of the Sea, the urgency of the situation did not require it to lay down, as binding legal obligations, the measures requested by Ireland".

524 See Stephens *supra* note 106, at 237.

525 *The MOX Plant Case supra* note 115.

526 See Stephens *supra* note 106, at 237-238; Cho *supra* note 106, at 64.

527 ITLOS. *Responsibilities and... supra* note 81.

528 See K. R. Lamotte, 'Introductory Note to International Tribunal for the Law of the Sea:

First of all, the case in question was not a lawsuit; it was an advisory opinion.[529] The International Seabed Authority requested the ITLOS, by means of the Seabed Disputes Chamber of the ITLOS,[530] to settle the following matters: a) the responsibility of the States in terms of sponsoring activities in the area;[531] b) the responsibility of the States for lack of compliance with the provisions established by the LOSC; in particular, regarding the activities listed in LOSC Article 153, paragraph 2, item "b";[532] and c) the appropriate measures that the States must take in order to fulfil their duties and responsibilities, especially with respect to Article 139 and Annex III of LOSC, and the 1994 Implementing Agreement.[533]

The opinion by the ITLOS explains all these questions and, with respect to the precautionary principle, it provides great advances, defining its manner of application and utilization. It is regarded as an historic decision.[534] In answering the aforementioned questions, the advisory opinion identified several obligations directly for the sponsoring States,[535] such as: provide assistance to the Authority in the exercise of the control of the activities in the Area; apply the best environmental practices; take measures to ensure the provision of guarantees in the case of an emergency order from the

Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area' (2011) 50(4) *International Legal Materials* 455-493, at 457.

529 For a more in-depth study on the prior history, background and procedures of the case, see Lamotte *supra* note 120, at 455; R. R. Churchill, 'Dispute Settlement under the UN Convention on the Law of the Sea: Survey for 2010' (2011) 26(4) *The International Journal of Marine and Coastal Law* 495–523, at 501-503.

530 Under the terms of LOSC Part XI ,the Seabed Disputes Chamber is in charge of solving any controversy involving the seabed, as well as issuing advisory opinions. LOSC Art. 191 and Art. 131 of the ITLOS Regulation. About the matter, D. Freestone, 'Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area' (2011) 105(4) *The American Journal of International Law* 755-760, at 759 says: "This is the first time that the advisory jurisdiction of the International Tribunal for the Law of the Sea has been invoked and the first time that the Seabed Disputes Chamber has been called upon".

531 ITLOS. *Responsibilities and… supra* note 81, at 5.

532 *Ibid.,* at 5-6.

533 *Ibid.*, at 6.

534 See Freestone *supra* note 122, at 759.

535 Sponsoring States are those countries whose state-owned companies and individuals or legal entities have the same nationality or are in effect controlled by the State, namely, those in LOSC Art. 139, para 1; Art.153, para 4 ; and Art. 4, para 4 of LOSC Annex III.

Authority to protect the marine environment; provide compensation for the damage caused by pollution; conduct environmental impact assessments; and apply the precautionary principle.[536]

Regarding the precautionary approach, the ITLOS established, in paragraphs 125 to 135, the exact limits for its application regarding the exploration of polymetallic nodules on the seafloor that, in a certain way, extend beyond the Area and apply to other marine activities.[537] That is, at least in the procedural issues and in the limits and rules for the utilization of the precautionary principle in international environmental law, the ITLOS's opinion extends beyond the strict guidelines of the opinion.

Regarding the application of the precautionary approach, first, the ITLOS begins the advisory opinion emphasizing that the international regulations themselves (Regulations on Prospecting and Exploration for Polymetallic Nodules and Regulations on Prospecting and Exploration for Polymetallic Sulphides), which were reviewed in the case in question, in addition to other general international documents, state that the precautionary approach must be applied and taken into consideration in the exploration of the Area.[538] The ITLOS decided that, although the general documents – like Principle 15 of the Rio Declaration – are not legally binding, both Regulations have mandatory application.[539]

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536 ITLOS. *Responsibilities and... supra* note 81, para 122.

537 There is some discussion and even harsh criticism at times with respect to the scope of application of the opinion. That is, the ITLOS understood that the advisory opinion (para. 87) was only about the obligations of the States with respect to certain activities described in the international texts that we analyzed: ISA, Regulations for Prospecting and Exploration of Polymetallic Nodules (available at http://www.isa.org.jm/files/documents/EN/Regs/PN-en.pdf); ISA, Regulations for Prospecting and Exploration of Polymetallic Sulphides (http://www.isa.org.jm/files/documents/EN/Regs/Polymetallic Sulphides.pdf). Thus, the opinion included only the following activities: "drilling, dredging, coring, and excavation; disposal, dumping and discharge into the marine environment of sediment, wastes or other effluents; and construction and operation or maintenance of installations, pipelines and other devices related to such activities" (ITLOS. *Responsibilities and... supra* note 81, para. 87). However, two important activities, which are even included in the analyzed International Regulations, were not included by the ITLOS: mineral transportation and processing. This position of the ITLOS was severely criticized in the literature. About the matter, see Freestone *supra* note 122, at 759, which defends the position of the ITLOS.

538 At several locations , both Regulations mention the duty to act with precaution.

539 ITLOS. *Responsibilities and... supra* note 81, para. 127.

Second, the ITLOS used the precautionary concept from Principle 15 of the Rio Declaration to establish how and in what situations this principle can be invoked: a) it can only be applied in threats of serious or irreversible damage to the environment. That is, only in situations of a greater risk, in which the environment might suffer damage to a point that corrective measures are not able to restore the marine environment in a satisfactory manner;[540] b) the cost-effectiveness of the precautionary actions to be adopted must be analyzed. That is, for their employment, the measures to be used must bring more benefits than costs. There are situations in which the cost of a certain precautionary action brings more harm than the possible damage.[541]

Third, the ITLOS alludes to Principle 15 of the Rio Declaration with respect to the fact that the precautionary approach must be adopted by the States, "according to their capabilities", which introduces the possibility of different uses of the precautionary approach in light of the different capabilities of each State.[542] Having said that, the ITLOS refers to paragraphs 151 to 163 of the opinion where it covers the responsibilities of developing countries. This is a delicate situation in which the Tribunal had to establish what the responsibilities would be for these States and how they would apply the precautionary approach. That is, if the prescription were poorly framed, that could easily leave gaps in the application of the measures by the developing countries, which would be exempt from – or at least would have fewer – responsibilities in the application of the precautionary approach for the protection of the marine environment. However, it must be clear that no provision in the LOSC – or the 1994 Implementing Agreement – gives preferential treatment to developing States with respect to the responsibilities of sponsoring countries. Although the international documents have specifications – such as LOSC Article 140, paragraph 1, where it states that the activities in the Area must take "into particular consideration the interests and needs of developing States"; or Article 148, which promotes the participation of developing States in activities in the Area –no provision sets different responsibilities for developed and developing countries.

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540 The ITLOS does not provide more details about the definition of the "serious damage" capable of legitimizing the use of precaution as a principle in international environmental law; it is left to be applied on a case-by-case basis. This position is perfectly plausible, because it is not up to the ITLOS to come up with all the concepts precisely, and it would also run the risk of excessively restricting its application by doing so.

541 ITLOS. *Responsibilities and... supra* note 81, para. 128.

542 ITLOS. *Responsibilities and... supra* note 81, para. 129.

This way, one may initially believe that the requirements for the fulfilment of the obligation to apply the precautionary approach may be more demanding for the developed countries than for the developing countries. However, the reference made to the different capabilities in the Rio Declaration does not mean that the developing States are allowed to stop following the so-called "best environmental practices", or even that they are exempt from responsibilities. On the contrary, both have the same duties and responsibilities in the application of the precautionary approach. According to the opinion, this equality is required; otherwise, this could lead to a fraud, with companies from a developed State trying to get sponsorship and support from a developing State to be submitted to less demanding regulations and controls. Such possibility would lead to a new kind of "convenience flag", with a rush of exploration companies in search of fiscal and environmental incentives.[543]

Fourth, notwithstanding the specific obligation to use the precautionary approach as a guiding principle for the activities in the Area, the ITLOS creates a general obligation of due diligence for the States, which is applicable even outside the scope of the case in question.[544] The due diligence obligation forces the States to take all the necessary measures to avoid damage that may result from any marine activity. This obligation applies to the situations where the scientific evidence about the scope and the potential of the harmful impact of the activity is insufficient, but the aforementioned requirements are met.[545] Thus, to the ITLOS, "a sponsoring State would not meet its obligation of due diligence if it disregarded those risks. Such disregard would amount to a failure to comply with the precautionary approach".[546] This implies that the advisory opinion, regarding the precautionary principle, is not limited to the specific activities in the Area; it applies to any other activity performed in the marine environment.

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543 *Ibid.,* para 159.

544 In this sense: ITLOS. *Responsibilities and... supra* note 81, para. 131: "it is appropriate to point out that the precautionary approach is also an integral part of the general obligation of due diligence of sponsoring States, which is applicable even outside the scope of the Regulations".

545 About the matter, Freestone *supra* note 122, at 758: "Recognizing that "due diligence" may impose more rigorous requirements for a contractor's riskier activities, the Chamber first identified what it termed the "legal obligation" to apply the precautionary approach as in Principle 15 of the Rio Declaration".

546 ITLOS. *Responsibilities and... supra* note 81, para. 131.

The ITLOS, in its analysis of the common expression "responsibility to ensure", which is found in several international environmental treaties, interpreted it as a due diligence obligation, closely related to the precautionary principle.[547] However, one needs to consider the difficulty of describing the content of these obligations in specific terms. The notion of caution and due diligence changes: first, according to the nature of the activity and of the capability of the State to control the risks; second, because it can change in time, because the measures that are regarded as being sufficiently diligent at a certain point may not be at another, and *vice-versa*, in light of new scientific or technological knowledge. Therefore, the opinion holds that the due diligence standard must be the most demanding for high-risk activities.[548]

Last, the due diligence measures that the sponsoring States must take to meet their responsibilities compel them to enact effective laws. There is a determination here that the adoption of administrative laws and regulations is necessary. That is because not all obligations of a contracting party may be implemented via contract obligations.[549] Therefore, the content of the duty of caution is inseparable from the obligation of the State to act in legislative and administrative terms.[550]

V. Concluding remarks

The precautionary approach is extremely relevant in a global risk society and, as a consequence, in the current international environmental law. However, its legal scope and applicability are complex, and continue to be, in a certain way, uncertain. The doctrine has long been denied – and many still do – its autonomy as an independent principle with mandatory application. Be that as it may, with the natural development of the law, the precautionary approach has become an objective principle with international applicability, especially with respect to the protection of the seas.

Although we are still not able to safely say that the precautionary approach is included in international law as an unchallenged principle, it has been given great steps over the last few years in this direction. Particularly with the contributions of the international jurisprudence, especially from the ITLOS,

547 *Ibid.*, para. 110.

548 *Ibid.*, para. 117.

549 *Ibid.*, para. 218.

550 See Borges *supra* note 6, at 78.

the precautionary approach is evolving and becoming an autonomous principle, with less uncertainty and subjectivity that caused so much apprehension for the States and doubt in the doctrine.

Without denying the importance of other environmental principles for the effective protection of the marine environment, the precautionary approach has a special place. It requires the implementation of specific protection measures from the State, even before any certainty about the damage that a certain activity might cause to the environment. Due to the complex nature of the environmental damage, difficulties in the assessments and often the impossibility to correct the damage, these preventive obligations adopted by the law – conventional or from custom – have a crucial role in the management of risks.

Nevertheless, it is acknowledged that the precautionary approach still needs to be better regulated and developed. The precautionary approach is not accepted as an indisputable principle in international environmental law. However, for legal protection of the seas, the principle has been increasingly applied, particularly by the ITLOS.

In conclusion, the precautionary approach, invoking the notions of risk, scientific uncertainty and irreversible damage, calls the legal domain to the solution of environmental issues of a global risk society. In this way, it seeks to transform the instruments of responsibility, compensation, sustainable development and consideration of the future generations, thereby significantly increasing the protection of the environment. The final success of the precautionary principle still depends on the progress of and on a few changes in the international institutions, but it is clear that the precautionary approach has become a solid principle of international environmental law, especially in the protection of the marine environment.

8

MARINE SCIENTIFIC RESEARCH: BEYOND A DEFINITION

Marcos L. de Almeida[551]

I. Introduction

The United Nations Convention on the Law of the Sea (UNCLOS) has an unquestionable importance to the international community and represents a monument to international cooperation in multilateral treaty-making process history, and sets the basis of the international legal regime for the oceans as part of international customary international law. Notwithstanding the comprehensive regime established by UNCLOS, it has a lack of definition for some important terms in its provisions, and this essay will work on some issues that permeate the absence of a definition of Marine Scientific Research (MSR).

551 The views and opinions expressed in this essay are those of the author and do not necessarily reflect the official policy or position of the Brazilian Navy or the Brazilian government.

The UNCLOS studies reveal that the law of the sea comes from the roman concept of *mare nostrum*, and the concepts and regimes we have nowadays are the result of permanent evolution of our civilization context, developments, needs and disputes around the world.

The Geneva Conventions on the Law of the Sea of 29 April 1958 might be considered the basis for UNCLOS, covering the continental shelf, the high seas, the territorial sea, fishing and conservation of the living resources of the high seas, but very limited on regard to marine scientific research.

However, it is relevant to recall that evolution of an international legal regime for ocean research evolves from social, political and economical aspects, but mostly from the advances on scientific and technical developments within a growing and wide range of economic interests in ocean resources, especially concerning the continental shelf of coastal States.

The scientific and technical advances of the 1950s and 1960s quickly generated a new economic interest in ocean resource potential. In the same period coastal States sought to extent their maritime jurisdiction, in the majority of cases in order to control coastal fisheries, and in some also in response to new discoveries and insights into the occurrence of offshore oil and gas. These developments, together with related concerns regarding foreign appropriation of resources, contributed to the emergence of the concept of permanent sovereignty over natural resources. (UNITED NATIONS, 1994)

Facing the controversies on MSR interpretations and interests, there is a need to consider behind a two possible opposite trends concerning: (i) the growing necessity of international co-operation and unity in coping with major international problems, and (ii) the sensibility of States concerning their sovereignty. (VUKAS, 2004)

These two trends lead us to check three points. First, the definitions of scientific research and differences between land-based and marine scientific researches. Second, how to bind intellectual property rights to the source of the material or phenomena studied. Third, the link between marine scientific research and States economy and security.

II. Scientific Research categories

As the result of a meeting with national experts on research and development statistics in 1963, the Organization for Economic Co-operation and Development (OECD) achieved the first version of the Proposed Standard

Practice for Surveys of Research and Development, known as the Frascati Manual. Originally, the OECD was conceived; in general, to promote policies envisioned to contribute to the development of world economy, nonetheless it is interesting to note that its publication has become a standard for Research and Development (R&D):

Although the Manual is basically a technical document, it is a cornerstone of OECD efforts to increase the understanding of the role played by science and technology by analyzing national systems of innovation. Furthermore, by providing internationally accepted definitions of R&D and classifications of its component activities, the Manual contributes to intergovernmental discussions on "best practices" for science and technology policies. The Frascati Manual is not only a standard for R&D surveys in OECD member countries. As a result of initiatives by the OECD, UNESCO, the European Union and various regional organizations, it has become a standard for R&D surveys worldwide. (OECD, 2002)

However, it sounds quite difficult to distinguish R&D from the related activities, and the reason is concerned to the stock of common knowledge and techniques of some specific areas. On the other hand, this feature depends on the objectives of the research project, but uncountable objectives can work with the same data bank, independent from the results of each research, whether profitable or not, if valuable for the humanity as a whole or not.

When researchers go to the sea to conduct marine scientific research within the most unknown part of our planet, the stock of common knowledge seems so insufficient that any information collected is valuable and appreciated, even without knowing where or when or whether it will be applicable. Not only because the difficulties to gather ocean data, but also the ocean remains an unknown habitat of unknown organisms interacting through unknown phenomena.

In general, three distinguishable types of R&D are commonsense:

1) *Basic*[552] *research* is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view;

2) *Applied research* is also original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective.

552 Sometimes also referred as 'Fundamental'.

3) *Experimental development* is systematic work, drawing on knowledge gained from research and practical experience, that is directed to producing new materials, products and devices; to installing new processes, systems and services; or to improving substantially those already produced or installed. (OECD, 2002)

Those who are familiar with MSR would agree that is quite a signal of inefficiency if a Research Vessel does not undertake these three types of R&D during a cruise survey. It means that is quite unreasonable to consider MSR as part of only one of these types of R&D.

Another point of view considers the 'usable knowledge' for politicians and policy-makers to achieve effective multilateral environmental governance, needed to the management of transboundary and global environmental resources, services and threats. The need for science policy considers the scientific functions that can be distinguished between different categories of knowledge used to policy formation, such as basic knowledge, environmental monitoring and policy advice.

Basic science is the development of understanding of the behavior of transboundary and global ecosystems [...].

Monitoring is the systematic collection of information about environmental quality. Accurate monitoring may lead to [...] improving implementation by virtue of the shaming effect of monitoring data, and to evaluation by providing data about regime performance and observed environmental change in the target variable [...].

Policy advice involves the choice of specific national and collective measures to address environmental degradation. Policy advice is likely to influence the substance of international regime obligations and national environmental policy, as well as national compliance and regime effectiveness. (HAAS, 2004)

These science functions categories, also applicable to MSR, are quite fundamental as one of the general principles orienting MSR is the protection and preservation of marine environment.

Other categorization on marine data collection is used by the United States of America (USA), which supports a restrictive interpretation of the UNCLOS provisions on MSR, such as:

(1) *Marine scientific research*, which includes traditional ocean science. The goal of MSR is the expansion of scientific knowledge of the marine

environment and its processes, and MSR itself may be subdivided into collection of data for fisheries research, oceanography, scientific ocean drilling or coring, biological, geological and geophysical studies. Scientific data generally is shared among public and private research communities;

(2) *Marine surveys*, which include hydrographic surveys and military surveys;

(3) *Operational oceanography*, which is a broad category directly associated with the safety of shipping and the physical domain of the ocean, and includes ocean state estimation, weather forecasting and climate prediction; and

(4) *Exploration and exploitation* of natural resources and shipwrecks and other underwater cultural heritage. (ROACH, 2007)

III. Marine Scientific Research regime

Part XIII of UNCLOS provides several articles on MSR, considering as general principle that it shall be conducted exclusively for peaceful purposes. It also establishes different regimes for MSR, depending on which maritime space it will be conducted: territorial sea, exclusive economic zone, continental shelf, the Area or High Seas.

Most of these provisions regard to the establishment of the jurisdiction of coastal States on MSR, which emerged from an ambience imbibed of these two tendencies – the growing necessity of international co-operation and unity in coping with major international problems, and the sensibility of States concerning their sovereignty –use arguments, in other words, from the benefit of mankind as a whole to the measures of developing States for protecting their political and economical interests from developed States.

The difficulties and controversies on MSR derive from attempts to distinguish concepts as pure and applied research, survey activities and permissible acts related to research, and also refer to the need for legal controls on the conduct of MSR, to the competence of States to control it and regards to the bureaucracy and restricted conditions to conduct MSR. (CHURCHILL, 1999)

These attempts normally collide with the suspicious of developing States on how fair is the alleged benefit to the mankind, considering that most of the

MSR are conducted by developed States, and the strong link between the ability of a State to conduct the state-of-the-art MSR, the mighty of their economy and the prosperity of their people.

This kind of observation is corroborated by the fact that most government funding and commercial activities, for example relating to the new biotechnologies, have been in the field of health, but also embrace agriculture activities and industrial and environmental products and services. As a consequence, the benefit to the mankind can be questioned, especially when marine living resources are considered, due to patents and other ways of intellectual property rights are driven by the need for achieve high returns on R&D investments, considering the need to invest heavily to discover new commercial products. (DUTFIELD, 2004)

North versus South politics emerge again, if we consider that most of developing States, particularly the least developed States, would not have access conditions to benefit from these new commercial products and services. It is also relevant to comprehend that the traditional way to deal with ocean as a common heritage, at the beginning of last century, did not derived from the abrogation of sovereignty, but it simply reflected the absent perception about the need to exercise any kind of control upon so vast and unlimited resources, as ocean was perceived (MURPHY, 1999).

Although all the distinctions and controversies on MSR raised by several authors, about the interpretation of UNCLOS provisions and the need of coastal State consent to conduct MSR, most of them can be clarified by Article 258 of UNCLOS:

The deployment and use of any type of scientific research installations or equipment in any area of the marine environment, shall be subject to the same conditions as are prescribed in this Convention for the conduct of marine scientific research in any such area. (UNITED NATIONS, 1997)

The data acquisition *in locu* at sea requires a platform or vessel equipped with instruments and technologies to collect, analyze and process or prepare data or material for post-processing in laboratories on shore. Of course, these kinds of data exclude those acquired by remote sensoring. Equally important, it means that any vessel employed in ocean data gathering must be subject to MSR conditions prescribed in UNCLOS. Furthermore, any kind of equipment, as oceanographic buoys, autonomous underwater vehicles (AUV), Argo floating profilers etc. are also inserted in this same context of MSR.

On this regard it is worthy to mention the Article 247, on projects of MSR undertaken by or under the auspices of international organizations, which certainly constitutes a call for greater cooperation among States through the competent organizations that promote, facilitate and coordinate research projects.

A coastal State which is a member of or has a bilateral agreement with an international organization, and in whose exclusive economic zone or on whose continental shelf that organization wants to carry out a marine scientific research project, directly or under its auspices, shall be deemed to have authorized the project to be carried out in conformity with the agreed specifications if that State approved the detailed project when the decision was made by the organization for the undertaking of the project, or is willing to participate in it, and has not expressed any objection within four months of notification of the project by the organization to the coastal State. (UNITED NATIONS, 1997)

The Intergovernmental Oceanographic Commission (IOC) of UNESCO plays this role in marine science and one of its major programmes, jointly led by the World Meteorological Organization (WMO), provides a mechanism for international coordination of oceanographic and marine meteorological observing, data management and services, combining the expertise, technologies and Capacity Development capabilities of the meteorological and oceanographic communities. Other achievement of the IOC regards the introduction of a procedure for the deployment of Argo floats, especially concerning those deployed in the high seas that drifted into a State´s Exclusive Economic Zone (EEZ). (JAMARCHE, 2010)

On this matter is quite important to recall that scientific consensus depends on some kind of consensus among groups of scientists and institutions of different networks, when their reputations for expertise and the knowledge generated were beyond suspicion of policy bias by sponsors (HAAS, 2004). It is also relevant that most science policy is provided in the context of individual regulatory regimes, as MSR by UNCLOS, but the expertise is spread up upon different and specific knowledge networks.

Furthermore, perhaps the most significant discovery, which emphasizes the importance of Article 258, is about the genetic resources of specific biological communities that live on the deep seabed, as some other endemic of particular areas with rare ecosystems, which can also occurs within the national jurisdiction (EEZ or continental shelf) of some coastal States, because of its commercial value, giving rise to the so-called bio-prospecting.

Despite of the fact the UNCLOS regime circumscribes the definition of 'resources' of the seabed and ocean floor and subsoil thereof beyond the limits of national jurisdiction (the Area) to "all solid, liquid or gaseous mineral resources *in situ* in the Area at or beneath the seabed, including polymetallic nodules" and, "when recovered from the Area, are referred to as 'minerals'", this resources definition is not applicable to the genetic resources aimed by bio-prospecting nor to any other space.

[…] the fairly recent discovery that 'the remote environment of the deep seabed supports biological communities that present unique genetic characteristics' and 'the ability of some deep seabed organisms to survive extreme temperatures (*thermophiles* and *hyperthermofiles*) and other extreme conditions (*extremophiles*) makes them of great interest to science and industry'. Out of this discovery has emerged a type of activity known as bio-prospecting which has been defined as 'the exploration of biodiversity for commercially valuable genetic and biochemical resources' or perhaps more technically 'the process of gathering information from the biosphere on the molecular composition of genetic resources for the development of new commercial products'. (NELSON, 2006)

The status of knowledge regarding ocean organisms and ecosystems, by the time the UNCLOS was elaborated, could explain some of its provisions and also some controversies that have arisen by facing new discoveries, what impact the international law through the acceptance of new scientific knowledge generated, and its consequences to the development of the law of the sea regime.

Along with 'egoistic self-interest' and 'political power', for instance, knowledge is another variable used to explain the development of regimes, as "the sum of technical information and of theories about that information which commands sufficient consensus at a given time among interested actors to serve as a guide to public policy designed to achieve some social goal" (HAAS, 1980b; *apud* KRASNER, 2009).

IV. Jurisdiction

One of the creative solutions to controversial questions that arose with UNCLOS regards to the re-engineering of the concept of sovereignty, which came originally from the *imperium* power exercised by the State. When we face terms like "sovereignty subject to the Convention and other rules of

international law", we realize on a changing regime for the international society. But when we face terms like "sovereign rights" we are experimenting the efforts to accommodate different interests and achieve a goal in international law and international relations.

These aspects lead this author to the Krasner distinction between authority and control, while differentiating regimes and agreements, regarding the first being more permanent and the second as temporary as every shift in power or interests. It comes along with the four different uses of term "sovereignty": domestic sovereignty, interdependence sovereignty, international legal sovereignty, and Westphalian sovereignty.

The term "sovereignty" has been commonly used in at least four different ways: domestic sovereignty, referring to the organization of public authority within a state and to the level of effective control exercised by those holding authority; interdependence sovereignty, referring to the ability of public authorities to control transborder movements; international legal sovereignty, referring to the mutual recognition of states or other entities; and Westphalian sovereignty, referring to the exclusion of external actors from domestic authority configurations. (KRASNER, 2009)

Considering that jurisdiction somehow relates to sovereignty, it goes further with the delimitation of specific jurisdiction to coastal States in the Law of the Sea. On this point, it is quite imperative to call attention that the basic principle of international jurisdictional order, considered internationally, is the territoriality principle. This case brings to mind one of the argumentation of scientific community on restrictions imposed to MSR, which the unity of the ocean demands that its study could not be restricted by the fewest man-made boundaries (DUTFIELD, 2004), that even do not exist physically. Together with the assertive of Ms. Borgese on the concepts made by land perspectives, many of those which simply will not work in the ocean medium, this argumentation emphasizes the truly innovative concepts and principles of the international law of the sea (BORGESE, 1998).

The comparison between land and ocean perspectives has shown that concepts, such as sovereignty and boundaries, become very much complex while neither fish nor pollution respect it, but are still very Westphalian in considering comprehensive State security, even with a broad sense of sustainable development (BORGESE, 1998). Obviously, these security senses are not tough considered when profitable ocean resources are focused by any kind of research.

For these reasons, Marine Scientific Research (MSR) assumes a very peculiar conception, meanwhile the ocean still remains as a barely known environment, and the acquisition of knowledge of the underlying foundations of phenomena and observable facts in the ocean is very distinct from doing it on ground. It means that mostly only scientists involved in ocean researches are aware of the complexity and the multiuse of research ships for doing it at sea.

On this view, it is valuable to underpin that the law of the sea guarantees that all "concerns are also accounted for and that sovereignty-based assertions of jurisdiction by one State do not unduly encroach upon the sovereignty of other States. The law of jurisdiction is doubtless one of the most essential as well as controversial fields of international law, in that it determines how far, *ratione loci*, a State's laws might reach" (RYNGAERT, 2008). And law of the sea also comprises the *ratione materiae*, which can be included within this analysis.

Guaranteeing a peaceful coexistence between States through erecting jurisdictional barriers which States are not supposed to cross, the law of jurisdiction is one of the building blocks of the classical, billiard-ball view of international law as a 'negative' law of State coexistence. (RYNGAERT, 2008)

Along with the understanding put forward above, peaceful purposes on ocean uses also need some restrictive provisions, even on MSR, in order to protect sovereign rights of coastal States, mainly of developing States.

V. Military uses of the sea

Marine research may also be more or less directly linked to military uses of the sea: for example, by trying to improve the ability to detect submarines. (CHURCHILL, 1999)

The cornerstone of the Law of the Sea can be easily associated as a solution to several armed conflicts among States regarding their interests on the sea, which leads UNCLOS to be acclaimed as a monument to international cooperation. Meanwhile the fundamental value of freedom of research disregards this historical link that even moves the advances of R&D and the development of new techniques and sophisticated technologies in military

fields. On this way, MSR must not ignore the distinctions between right and wrong, or between good and evil on the real interests of States, behind their scientific and academic shield.

In the real world is quite hard to maintain the separation between the pure cognitive dimension of science and its technological application, in a world where economic and commercial interests exercise ever-growing pressure over the financing and orientation of scientific research (FRANCIONI, 2006).

The legitimate idea of the common interest of the whole international community is usually misled to a 'ingenuous' consideration of the principle of a exclusively use for peaceful purposes, without considering that military activities strongly depends on environment information and are also guided by economic interests, especially when these interests are in others national jurisdiction areas.

[...] a string of incidents caused by Chinese interception of U.S. military survey vessels in the East China Sea over the past decade underscore competing interpretations concerning the meaning of "marine scientific research". (KRASKA, 2011)

For example, the hydrographic survey contributes to oceanography researches, as well as to geological studies, and also for mining planning or troops disembark on shore. In several cases, these kinds of surveys are considered as military. Some authors insist on the freedom of military surveys as not included within the jurisdiction of coastal States but, curiously, they have forgotten to point out Article 258.

One highlights the fact that when Law of the Sea are being dissected, as MSR has been checked for a long time, there is a need to consider what is behind it, and will not be difficult to regard while the acceptance that military activities in the EEZ were inconsistent with peaceful purposes is led that is *reductio ad absurdum*, for being inconsistent with state practice (KRASKA, 2011), these same States consider military marine data collection excluded from UNCLOS regimes disregarding Article 258, or simply considering the absurd that all scientific data is shared among public and private research communities, without saying 'except those relevant to military activities and potential economical profits'.

VI. Concluding remarks

The realist approach to the question of a definition to 'marine scientific research' points out that the generation of knowledge on ocean interacts, in a very complex context, with the self interests of States, the world economy and its security, the comprehension of policy makers on the evolution of international legal regimes, and the peaceful coexistence among States.

This feature does not preclude to assert that some interpretations are more correct than others in the sense of exegesis of the UNCLOS. Although the complexity of interests on ocean issues, it is quite reasonable to admit that some definitions of MSR by national legislation of coastal States will compose the evolution of the international customary law on this regard, as policy makers, rulers, diplomats and scientific community duly concerns a cooperative strategy for ocean governance, also in view of the changed meaning that technology gives to geography, especially focused on ocean.

9

ISLANDS AND ROCKS RECENT DEVELOPMENTS BY SOUTH CHINA SEA ARBITRAL AWARD

Eliana Silva Pereira

I. Background

The United Nations Convention on the Law of the Sea (UNCLOS)[553] sets forth the international legal regime for rocks, islands and other maritime features[554] that are relevant to the definition of the maritime zones under national jurisdiction. Under the principle of indivisibility of territorial sovereignty and equal treatment advocated[555] during the negotiations of

553 The UNCLOS was approved in the III United Nations Conference on the Law of the Sea, in the eleventh session held in Montego Bay Jamaica. It was open for signature on 10 December 1982, and entered into force on 16 November 1994. *United Nations Treaty Series* (UNTS) 397. Accessed October 25, 2016. https://treaties.un.org/doc/publication/unts/volume%201833/volume-1833-a-31363-english.pdf.

554 Such as reefs and low-tide elevations, which are considered for the definition of baselines, as per provided for in the article 7 and 13 of UNCLOS.

555 It was mainly Fiji, Greece, New Zeeland, Tonga and Westerns Samoa, which defended

the UNCLOS, islands were granted the same treatment as continents, and consequently generating the same maritime entitlements, as provided for in the article 121 (2).[556] However, in order to achieve a compromise,[557] within the concept of *a naturally formed area*, a significant distinction was introduced in Part VIII, which gave rise to the concept of rocks in the article 121 (3). Islands and rocks can be extremely diverse; nonetheless, they have one important common trait - being naturally made – both are clearly distinguished from artificial islands completely unable to generate maritime entitlements.[558]

The ambiguous and vague language used in the article 121 (3) has been subject to different interpretations and considerations by scholars[559], but less attention has been given by jurisprudence. The International Court of Justice (ICJ) provided some insights and considerations regarding the interpretation of the article 121,[560] but only the recent South China Sea Arbitral Award

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that equal treatment of islands was universally accepted and no distinction should be introduced between islands and islands-related formations. For more information on the negotiations of the article 121 see Office for Oceans Affairs and the Law of the Sea (DOALOS) *Régime of Islands Legislative History of Part VII (Article 121) of the United Nations Convention on the Law of the Sea* (New York: United Nations Publication, 1988).

556 All the articles referred in this paper, unless otherwise specify, are UNCLOS articles.

557 With the group of countries chiefly lead by Turkey, Romania and African States that argued that islands were not all of equal importance and distinctions should be made between fully entitled islands and simple rocks. See DOALOS, *Legislative History of Part VII,* 42.

558 Article 60 (8) and article 80.

559 See Clive R. Symmons, *The Maritime Zones of Islands in International law, Developments in International Law* (The Hague: Martinus Nijhoff Publishers, 1979); Derek W. Bowett, *The Legal Regime of Islands in International Law* (Dobbs Ferry, New York; Oceana Publications, Inc., Alphen aan den Rijn: Sithoff and Noordhoff, 1979); E. D. Brown, "Rockall and the Limits of the National Jurisdiction of the UK Part 1," *Marine Policy* 2, no. 3 (1978); Alex G. Oude Elferink, "Clarifying Article 121(3) of the Law of the Sea Convention: The International Legal processes," *International Boundary Research Unit*, *Boundary and Security Bulletin* 6 no. 2 (Summer 1998); Clive R. Simmons, "Ireland and the Rockall Dispute: An Analysis of Recent Developments" *International Boundary Research Unit*, *Boundary and Security Bulletin,* 6 no. 1 (Spring 1998).

560 Especially the decisions awarded in the following ICJ cases: *Maritime Delimitation and Territorial Questions between Qatar and Bahrain, Merits*, ICJ Reports (2001). Accessed October 20, 2016. http://www.icj-cij.org/docket/files/87/7027.pdf; *Maritime Delimitation in the Black Sea (Romania v. Ukraine),* ICJ Reports (2009). Accessed October 20, 2016. http://www.icj-cij.org/docket/files/132/14987.pdf; and the *Territorial*

comprehensively examined the issue of which elements separate islands from rocks.

This paper will analyse and explore the most relevant developments regarding the definition of islands and rocks within the context of maritime features in the South China Sea.

II. The South China Sea

The South China Sea is a semi-enclosed sea surrounded by China, Vietnam, Malaysia, Singapore, Brunei, Indonesia, and the Philippines. It is one of the most important strategic maritime zones in the world: the area is a key route used for international navigation, and its seabed and water column have been reported to be rich in natural resources, not only hydrocarbons[561], but also fishing stocks, and biodiversity.[562] The control over the free passage of warships and military aircrafts is also strategic. The South China Sea covers a relatively shallow area[563] scattered by different maritime features, either above or below the water, such as cays, shoals, reefs, islets, sandbars, rocks, and islands. Tensions in the South China Sea have been frequent over decades, not only as a result of competing claims to territorial sovereignty over maritime features but also due to the existing overlapping claims over its surrounding waters. The most well-known features under longstanding

and Maritime Dispute (Nicaragua v. Colombia), ICJ Reports (2012). Accessed October 20, 2016. http://www.icj-cij.org/docket/files/124/17164.pdf.

561 For more information on the existing legal solutions that regulate access to hydrocarbon resources in the region, see Vasco Becker-Weinberg, *Joint Development of Hydrocarbon Deposits in the Law of the Sea*, International Max Plank Research School for Maritime Affairs at the University of Hamburg, vol. 30, Hamburg Studies on Maritime Affairs, (Hamburg: Springer, 2014), 155-163.

562 *The South China Sea Arbitration, (The Republic of the Philippines v. The People's Republic of China),* PCA Case No. 2013-19, Award on Jurisdiction and Admissibility, (2015) para 3. Accessed October 20, 2016. https://www.pcacases.com/web/sendAttach/1506.

563 Almost half of the South China Sea has a depth of less than 200 meters, although there are parts of the Sea on a deep abyssal plain, which extends to a depth of more than 5000 meters at the Palawan Trough, off the coast of the Philippines. For more information consult Jon M. Van Dyke and Dale L. Bennet, "Islands and the Delimitation of Ocean Space in the South China Sea," *Ocean Yearbook Online, Brill Online* 10, n. 1 (1993): 56.

dispute are the Spratly Islands,[564] Paracel Islands,[565] Macclesfield Bank and Scarborough Reef[566]. Tensions have been intensified after the Second World War, and have mostly involved China's actions against Vietnam and the Philippines.[567] China's movements have been publicly justified based on its claim on historic rights, although an official declaration explaining its scope and the meaning of the "nine-dash line" has never been made available by Chinese officials.

As a result of a series of incidents involving neighbouring States in the South China Sea, the member States of the Association of Southeast Asian Nations (ASEAN)[568] and China signed in 2002, a Declaration on the Conduct of the Parties in the South China Sea, which represented a commitment of the parties to "*resolve their territorial and jurisdictional disputes by peaceful means, without resorting to the threat or use of force*".[569]

564 Which are located in the central part of the South China Sea. The Spratly Islands consist of more than 140 several islets, rocks, reefs, shoals, and sandbanks, some are submerged others depending on the tide, the reason why these islands are marked as a dangerous ground on navigation charts. For more details on the geography of Spratly Island, see David Hancox and Victor Prescott, "A Geographical Description of the Spratly Islands and an Account of Hydrographics Surveys Amongst Those Islands," *Maritime Briefings, International Boundary Research Unit* 1 no. 6 (1995), and Clive Schofield, "Dangerous Grounds: A Geopolitical Overview of the South China Sea," in *Security and International Politics in the South China Sea Towards a Cooperative Management*, ed. Sam Baterman and Ralf Emmers, Routledge Security in Asia Pacific Series (London: Routledge, 2009), 7-25.

565 Which are located in the northern part of the South China Sea, and consist of 35 islets, shoals, sandbanks, and reefs.

566 Which are located in the northern part of the South China Sea.

567 One can give as example, the 1974 Chinese attack to Paracel islands under Vietnam control; the 1988 Chinese attack on Vietnamese forces close to Fiery Cross Reef, the 1995 Chinese military action against the Philippines in the Mischief Reef, as well as the the 2010 seizure of a Vietnamese fishing boat and its 12 crew members around Paracel islands. For more detailed information see Peter Dutton, "Three Disputes and Three Objectives China and the South China Sea," *Naval War College Review* 64 no. 4 (Autumn 2011): 42-68. Accessed October 29, 2016. https://www.usnwc.edu/getattachment/074035d2-908f-4e62-be57-41750675e2dd/Download-the-entire-issue-for-your-e-reader.aspx.

568 Beyond Vietnam, Malaysia, Singapore, Brunei, Indonesia, and the Philippines, Thailand, Cambodia, Myanmar, and Laos, are also members of the ASEAN.

569 The ASEAN Declaration on the Conduct of the Parties in the South China Sea (2002). Accessed 06, September 2106. http://asean.org/?static_post=declaration-on-the-conduct-of-parties-in-the-south-china-sea-2. This Declaration was later invoked by China's Position Paper as constituting a bar to the proceedings initiated by the

A new era of strain was initiated in 2009, after the joint submission made by Vietnam and Malaysia, to the Commission on the Limits of the Continental Shelf (CLCS),[570] for the extension of their continental shelf in the southern part of the South China Sea, as well as the separate submission made by Vietnam in the northern part of the South China Sea. This was the first time that, not only a map with a very clear indication of the outer limits of the EEZ and the continental shelf of both countries was presented, but also when Malaysia made public its straight baselines along the coast of Sabah and Sarawark, which had never been previously declared.[571] Both China[572] and the Philippines[573] contested these submissions by proper diplomatic notes. Since then, China has also intensified its assertive position and undertaken several unilateral actions in the region in order to attest and enhance its *de facto* control and jurisdiction over "nine-dash line", preventing the "*Philippines from exploiting the non-living and living resources in the waters that lie within 200 nautical miles of the Philippines' baselines*".[574]

Philippines since it in accordance with Chinese's view constitutes a binding agreement for the purposes of article 281. An argument that was fully rejected by the court. See *The South China Sea Arbitration Award on Jurisdiction,* para 198-209.

570 CLCS was created under article 76 and annex II of UNCLOS and makes recommendations to coastal states concerning the outerlimits of the continental shelf in areas where those limits extend beyond 200 nautical miles. For more information see DOALOS. Accessed October 29, 2016. http://www.un.org/depts/los/clcs_new/commission_submissions.htm.

571 See Robert Beckman, "The UN Convention on the Law of the Sea and the Maritime Disputes in the South China Sea" *The American Journal of International Law,* 107:142 (2013): 148. Accessed October 24, 2016). http://cil.nus.edu.sg/wp/wp-content/uploads/2010/08/Beckman-THE-UN-CONVENTION-ON-THE-LAW-OF-THE-SEA-AND-THE-MARITIME-DISPUTES-IN-THE-SCS.pdf.

572 China's verbal note No. CML/17/2009, issued on 7 May 2009, defended that the submission seriously infringed the China's sovereignty, sovereign rights and jurisdiction in the South China Sea. Accessed October 24, 2016. http://www.un.org/depts/los/clcs_new/submissions_files/mysvnm33_09/chn_2009re_mys_vnm_e.pdf.

573 The Philippines verbal note No. 000819, issued on 4 August 2009, essentially saying that the submission refers to an area that overlaps with the Philippines claims in the South China Sea. Accessed October 24, 2016. http://www.un.org/Depts/los/clcs_new/submissions_files/mysvnm33_09/clcs_33_2009_los_phl.pdf.

574 *The South China Sea Arbitration, (The Republic of the Philippines v. The Republic of China) PCA Case No. 2013-19, Award* (2016), para 650. Accessed October 20,2016. https://pca-cpa.org/wp-content/uploads/sites/175/2016/07/PH-CN-20160712-Award.pdf.

III. The South China Sea Arbitral Award

Based on the argument that the attempts to settle the disputes in the South China Sea by negotiation have failed, the Philippines submitted a case to the Permanente Court of Arbitration (PAC)[575] against China asking the tribunal to rule on three inter-related matter:[576] the rights and obligations of the parties and the historic rights over the "*nine-dash line*" under the UNCLOS;[577] the definition, the status and the maritime entitlements of several features - islands, rocks, low-tide elevations, and submerged banks; and the lawfulness of certain activities undertaken by China in the area.

China has consistently rejected the constitution of the tribunal and the Philippines' recourse to arbitration and has never accepted or participated in the associated proceedings. Nevertheless, China published, on 7 December 2014, a Position Paper[578] manifestly denying the jurisdiction of the arbitral tribunal[579] and the Philippines claims. China presented its position in several public statements and sent diplomatic notes both to the Philippines and to the PAC. These actions were taken into account by the court and considered as a plea,[580] despite the declarations made by China that the communications

575 PAC served as the Registry in the case, which was decided by an arbitral tribunal.

576 The submissions are summarized in 15 points identified in the Philippines Memorial, presented to the tribunal on 30 March 2014.

577 Both the Philippines and China are parties to the UNCLOS. The Philippines ratified it on 8 May 1984, and China on 7 June 1996, See DOALOS. Accessed October 24, 2016. http://www.un.org/depts/los/reference_files/chronological_lists_of_ratifications.htm.

578 *Position Paper of the Government of the People's Republic of China on the Matters of Jurisdiction in the South China Sea Arbitration Initiated by the Republic of the Philippines*, Ministry of Foreign Affairs of the People Republic's of China (2014). Accessed October 24, 2016. http://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1217147.shtml.

579 In China's position, the tribunal lacks jurisdiction mainly based on three arguments: 1) the dispute between the parties relates to territorial sovereignty, 2) the parties have an agreement to settle disputes exclusively by negotiation under the ASEAN-China Declaration on Conduct of the Parties in the South China Sea (see note 17); 3) China's 2006 declaration under the article 298 excluding the jurisdiction of compulsory procedures over disputes concerning boundary delimitations, involving historic bays or titles, or relating to certain other specific matters, such as military activities. For more information, see Sienho Yee, "The South China Sea Arbitration: The Clinical Isolation and / or One-Sided Tendencies in the Philippines' Oral Arguments," *Chinese Journal of International Law*, 14, No. 3 (2015): 423-25,.

580 *The South China Sea Arbitration Award on Jurisdiction*, para 391.

shall "*by no means be interpreted as China's participation in the arbitral proceedings in any form*". [581]

The tribunal has considered that China's non-participation was not a bar to the proceedings,[582] and took several measures to safeguard the procedurals rights of the parties.[583] However, the tribunal decided to bifurcate[584] the case into a preliminary phase, to first address the issue of tribunal's jurisdiction and defer to a subsequent phase, the decision on the merits. In the jurisdiction award, released on October 29, 2015, the tribunal concluded that it has jurisdiction over the case and over seven claims,[585] but highlighted that the jurisdiction over the remaining eight claims was intertwined with the merits.[586]

Regardless of the third parties' claims in the South China Sea, the tribunal decided that the determination of the nature and the maritime entitlements generated by the maritime features in the area did not require any decision neither on maritime boundary delimitation nor on territorial sovereignty, and as a result, would not affect the position of third States[587].

The Award on the Merits was released in 12 July 2016, and addressed the legal basis of maritime rights and entitlements in the South China Sea, the lawfulness of certain actions undertaken by China in the area, the status of certain maritime features and the entitlements to maritime zones that they are capable of generating under the UNCLOS. The assessment of the status of the maritime features corresponded to the Philippines submissions No. 3, 4, 5, 6, and, 7, as follow:

- No. 3 - Scarborough Shoal is a rock and generates no entitlement to an exclusive economic zone or continental shelf, in contrast to China's position that classifies them as islands;

581 Ibid., para. 10.

582 As a result of the article 9 of Annex VII of the UNCLOS.

583 *The South China Sea Arbitration Award on Jurisdiction*, para 117 and 118.

584 Ibid., para 392 to 396.

585 Corresponding to the Philippines submission No. 3,4,6,7,10,11, and 13. Ibid., para. 413-G

586 Corresponding to the Philippines submission No. 1,2,5,8,9,12,14, and 15. Ibid., para. 413-H

587 Thirds states like, Vietnam, Malaysia, Indonesia, Brunei, Australia, Japan, Singapore, Thailand, were, however, allowed to receive a copy of the pleading, and granted authorization to follow the procedures by attending the hearings as Observer States, although have never applied to intervene in the proceedings. Ibid., para 188.

- No. 4 - Mischief Reef, Second Thomas Shoal, and Subi Reef are low-tide elevations that do not generate entitlements to maritime zones and are not capable of appropriation by occupation or otherwise, opposed by China's view that they are fully entitled islands;
- No. 5 - Mischief Reef and Second Thomas Shoal are part of the exclusive economic zone and continental shelf of the Philippines and not China's Nansha Islands as claimed by China;
- No. 6 – Gaven Reef and McKennan Reef, including Hughes Reefs, are low-tide elevations that do not generate maritime zones, but may be used to determine the baseline from which the breadth of the territorial sea is measured;
- No. 7 - Johnson Reef, Cuarteron Reef, and Fiery Cross Reef generate no entitlement to an exclusive economic zone or continental shelf.

IV. The Status of Certain Maritime Features in the South China Sea

As referred in the ICJ North Sea Continental Shelf Cases, maritime rights derive from the coastal state's sovereignty over land, based on the principle that "*land dominates the sea*".[588] As part of customary international law, the principle of domination unfolds in the idea that it is the terrestrial situation that is the basis and the starting point for the determination of the maritime entitlements.[589] Consequently, prior to the definition of a maritime zone, sovereignty over maritime features must first be settled, in accordance with the principles and rules of acquisition of territory under international law.[590]

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588 See *North Sea Continental Shelf Cases (The Federal Republic of Germany v. Denmark and Federal Republic of Germany v. Netherlands),* Judgement, ICJ Reports, (1969), para 96. Accessed October 24, 2016. http://www.icj-cij.org/docket/files/52/5561.pdf.

589 See Bing Jia, "The Principle of the Domination of the Land over the Sea: A historical Perspective on the Adaptability of the Law of the Sea to New Challenges, "*German Yearbook of International Law*" No. 57 (2014): 63-94. Accessed October 28, 2016. http://www.iilj.org/wp-content/uploads/2016/09/JiaIILJColloq2015.pdf.

590 Principles and rules on acquisition of territory apply to islands in the same form as they apply to other land territories. International courts had a chance to recently address sovereignty disputes over islands in some cases, such as in the *Case Concerning Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge* (Malaysia v. Singapore) Judgement, ICJ Reports, (2008). Accessed October 25, 2016. http://www.icj-cij.org/docket/files/130/14492.pdf; and the Arbitration Award on Territorial Sovereignty and Scope of the Dispute (Eritrea v. Yemen), Volume XXII Untied Nations, (1998).

Maritime features, however, do not generate maritime zones alike. "*There are approximately half a million formations of islands in the world, and these formations are extremely diverse*".[591] Therefore, taking this fact into account, the UNCLOS established a different legal regime for natural formations including islands, rocks, low-tide elevations on one hand, and artificial islands on another hand.

In the South China Sea Arbitral Award, without entered into the question of sovereignty or boundary delimitation, the tribunal ruled on the status of certain maritime features, examined the definition of low-tide elevations, and undertook an extensive and innovative analysis of the article 121 (3).

The starting point of the assessment of the court was based on the assumption that human modifications and interventions over coral reefs, by constructing concrete artificial installations, desalination facilities, and airstrips on the top of it, were not to be considered for the purpose its classification.[592] Accordingly, the status of any maritime feature shall be addressed based on its natural condition,[593] since as per the UNCLOS, both islands and low-tide elevations are naturally formed areas. It is noteworthy to remember the tribunal's sentence: "*a low-tide elevation will remain a low-tide elevation under the Convention, regardless of the scale of the island or installation built atop it*".[594] If a low-tide elevation is build up through land reclamation or if any kind of structure is built on it, the low-tide elevation remains as such, or ultimately, becomes an artificial island[595], which being man-made constructions or

Accessed October 25, 2016. http://legal.un.org/riaa/cases/vol_XXII/209-332.pdf.

591 Yoshifumi Tanaka, *The International Law of the Sea* (USA: Cambridge University Press, 2012), 62.

592 China, the Philippines, and Vietnam have placed personnel and constructed several facilities, such as lighthouses, airstrips and different buildings in the larger features of Spratly Islands. See *The South China Sea Arbitration Award on Merits,* para 401-407.

593 Ibid., para. 304 and 511.

594 Ibid., para. 305.

595 Although UNCLOS does not present a consistent terminology, making references to artificial islands, installations and structures, some scholars have explored these concepts, such as Alfred A. Soons, which defines artificial island "*as constructions which have been created by the dumping of natural substances like sand, rocks and gravel" and installations as "constructions resting upon the seafloor by means of piles or tubes driven into the bottom, and to concrete structures*." See Alfred A. Soons, "Artificial Islands and Installations in International Law," *Occasional Papers Series 22,* (Kingston: Law of the Sea Institute, University of Rhode Island 1974): 3. Accessed October 28, 2016. https://repositories.tdl.org/tamug-ir/bitstream/handle/1969.3/27383/10857-Artificial%20Islands%20and%20Installations%20in%20International%20Law.pdf?sequence=1.

created under human intervention, do not have a territorial sea of their own, and their presence does not affect the delimitation of the territorial sea, the EEZ or the continental shelf.[596][597] The same rationale applies to rocks, which cannot be transformed into islands through land reclamation for the purpose of the article 121 (2).[598] So, when evaluating a maritime feature, one shall use the best available evidence in order to report to its natural condition prior to any artificial modification.[599]

1. Low-tide elevations

Within the category of naturally formed features, the article 13 defines low-tide elevations, as insular formations that are above the water at low tide but submerged at high tide.[600] Accepting the Philippines position,[601] the court ruled that low-tide elevations are classified as part of the submerged landmass of the coastal state, not part of its land territory.[602] As a result, on the contrary to islands, they cannot be appropriated by the coastal state, and are subject to the legal regime of the territorial sea when located within the 12 nautical miles or the continental shelf if beyond.[603] Low-tide elevations do not generate maritime rights,[604] however, when located wholly or partly within 12 nautical miles, they may be taken into account for measuring the

596 *See* article 60 (8) and article 80.

597 However, the UNCLOS allows the coastal state to establish reasonable safety zones around artificial islands, where is necessary to ensure the safety of navigation or the artificial island itself, see article 60(4).

598 *The South China Sea Award on Merits,* para. 508.

599 The tribunal used several techniques to collect tidal patterns and to examine the features characteristics, such as satellite imagery and nautical surveying and sailing directions.

600 This legal regime was adopted in the 1958 Territorial Sea Convention and has been crystallized since then.

601 *See The South China Sea Award on Merits,* para. 291, 309.

602 The UNCLOS and the state practice are both inconclusive as to whether low-tide elevations can be considered territory. However, as noted in in the *ICJ Case between Qatar v. Bahrain*, para. 205, and in the *ICJ case concerning Sovereignty over Pedra Branca*, para 295, low-tide elevation cannot be equated to islands when it comes to acquisition of sovereignty.

603 The tribunal adopted the same view expressed by the *ICJ case between Nicaragua v. Colombia*, para. 26.

604 Article 13 (2).

breadth of the territorial sea,[605] and in some cases, as basepoints for defining straight baselines.[606]

Under this understanding, Hughes Reefs, Gaven Reef (South), Subi Reef, Mischief Reef, and Second Thomas Shoal, in their natural condition, were considered by the tribunal as low-tide elevations, [607] while Scarborough Shoal, Johnson Reef, Cuarteron Reef, Fiery Cross Reef, McKenna Reef, and Gaven Reef (North) were classified as high-tide features. The answer as to whether these high-tide features are to be rocks or islands for the purpose of the article 121 is going to be addressed later on this paper.

2. High-tide features

As highlighted in the South China Sea Arbitral Award, maritime entitlements are then limited to naturally formed high-tide features - "*fully entitled islands and rocks respectively*".[608]

Islands, if so identify, enjoy the same status as other land territories[609], and therefore generate the same maritime rights, such as a territorial sea, a contiguous zone, an EEZ, and a continental shelf. Article 121 (2) is considered as reflecting customary international law.[610]

The island status comes along with important benefits, since the adjacent EEZ and continental shelf, which span over an area of 200 nautical miles, are important spots of biodiversity and resources, both mineral and natural. Offshore drilling and mineral extractions in the continental shelf,[611] as well as the access to fishing grounds in the EEZ[612] are important sources of income

605 Article 13 (1).

606 Article 7(4). R. R. Churchill and A.V. Lowe, The Law of the Sea, 3rd ed. (Manchester: Manchester University Press, Juris Publishing repr., 1999) 49.

607 *The South China Sea Award on Merits,* para. 383.

608 Ibid., para. 390.

609 *ICJ Case between Qatar v. Bahrain,* para. 185.

610 Article 121 (2) determines that "*except as provided for in paragraph 3, the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf of an island are determined in accordance with the provisions of this Convention applicable to other land territory*."

611 These are exclusive rights, in the sense that these activities cannot be undertaken without the coastal state consent, see article 77(2) - and are automatic since they are no dependent on occupation or proclamation - *see* article 77(3).

612 The EEZ is a functional zone that needs to be claimed by the coastal state and the

for those countries, which are entitled to it.[613] For these reasons, coastal states naturally tend to classify their maritime features as islands, rather than rock, as per the UNCLOS its legal regime is significantly different.

Article 121 paragraph 3 states that "*rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf*", consequently reducing the coastal state influence to the territorial. In practice, article 121 (3) notably shrinks the rights and jurisdiction of the coastal state from 200 nautical miles to a 12 nautical miles belt, which corresponds to the breadth of the territorial sea.[614] This limitation entails the risk of creating disputes over the nature of a maritime feature, especially if the surrounding area of the rock is rich in natural resources.

It is worth to note that the concept of rocks was only introduced during the negotiations of the III United Nations Conference on the Law of the Sea.[615] Before that, high-tide features were of equal status, as it can be concluded not only from the lack of customary law or international treaty indicating the contrary but also directly from the wording of the article 11 of the 1958 Convention on the Territorial Sea and Contiguous Zone, which did not recognize any different categories of islands.[616] The limitation of the

sovereign rights for the purpose of exploring, exploiting, conserving and managing fisheries stocks in the EZZ, - see article 56(1). These rights are to be exercised by the coastal state along with its duty to promote the objective of optimum utilization – *see* article 62(1) and to establish the total allowable catch – *see* article 61 (1).

613 The majority of the ocean's fishing resources and hydrocarbon resources are located under the coastal state jurisdiction.

614 Territorial sea is an immediately adjacent area to the land territory and the sovereignty exercise over it is only limited by the disposition of UNCLOS *maxime* the right of innocent passage – *see* article 2 and 3. The breadth of the territorial sea was subject to several discussions over the centuries and it was only agreed during the III United Nations Conference on the Law of the Sea, Churchill and and Lowe, *The Law of the Sea*, 71-75.

615 As it is noted in *The South China Sea Award on Merits,* para. 526, the Maltese Ambassador Arvid Pardo has himself express to the Seabed Committee in 1971 his concerns regarding the idea of grating 200 nautical miles' jurisdiction to all islands alike.

616 Previously, an early formulation can be found on the article 10 of the 1956 Report of the International Law Commission that determined that "*Every island has its own territorial sea. An island is an area of land, surrounded by water, which in normal circumstances is permanently above high-water mark*". As per the commentary, this definition would apply both to islands situated in the high seas and in the territorial sea. See *Yearbook of the International Law Commission 1956, Voll II, Documents of the eight session including the report of the Commission to the General Assembly*, (New York: United Nations Publication, 1957), 270.

effects of rocks and the rationale of the article 121 (3) was aimed at ensuring an equitable distribution of maritime spaces, considering the increasing expansion of the coastal state jurisdiction through the EEZ, and in order to prevent encroachment of international seabed and its mineral resources, classified as a natural heritage of mankind by UNCLOS.[617]

3. The interpretation of the article 121(3)

During the III United Nations Conference on the Law of the Sea, article 121 was subject to several discussions and negotiations. Different positions and ideas were presented and considered in an informal consultative group created with purpose of determining concrete criteria to distinguish islands, rocks and islets. Objective classifications based on size, population, location, geological configuration, geomorphological structure, position and political status, were put forward, but constantly rejected by the negotiators.[618] Article 121 (3) was introduced in the Informal Single Negotiation Text, it was part of the package deal[619]required for the approval of the UNCLOS, and represented a compromise formulae agreed among the delegations[620] in order to ensure that small mid-ocean rocks would not be occupied or transformed for the exclusive purpose of generating maritime entitlements.

As it is generally recognized, and noted by the South China Sea Arbitral Award, the scope of application of the article 121 (3) is not clearly established neither by the state practice[621] nor by the jurisprudence. Additionally, the lack of precision and ambiguity of the provision does not facilitate one's task to point out and separate, from a practical perspective what is an island and what is a rock.

A rock is a category of an island that cannot sustain human habitation or economic life of their own, and because of it, generates limited maritime rights. The central question is then, first to interpret exactly what constitutes a rock; and second to clarify the meaning of "*cannot sustain human habitation or*

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617 *The South China Sea Award on Merits,* para. 389 and 514 to 520.

618 Ibid., para. 537 and 538.

619 See DOALOS, *Legislative History of Part VII,* 72.

620 Mozambique, Denmark, Trinidad and Tobago, Tunisia, were some of the delegations supporting the text, against opposing ones, like Japan, Greece and the United Kingdom, see *The South China Sea Award on Merits,* para. 532.

621 Ibid., para. 553.

economic life of their own", and consider whether or not these criteria are both required as it was proposed by the Philippines.[622]

In order to do that, the court considered the text of the article 121 itself, the context within which it was introduced in the UNCLOS, and took into account the *travaux préparatoires* of the UNCLOS, as supplementary means of interpretation, as provided for in the Vienna Convention on the Law of the Treaties.[623]

4. Rock

The first conclusion laid down by the tribunal reflects the understanding that the term "*rock*" does not require the adoption of a geological or a geomorphological criterion. Therefore, the term includes not only maritime features composed of solid rock but also rock-like in nature, which may vary in harness, comprises organic matter, and soft materials such as coral, mud, sand, or soil. This interpretation follows from the dictionary and derives from the UNCLOS' text, which defines a rock by reference to its naturally formed origin rather imposing any restriction based on the rock geological or geomorphological composition.[624]

As a result, the *nomen iuris* of certain maritime feature does not qualified it as rock for the purpose of the article 121(3), and provides no guidance "*as to whether it can sustain human habitation or an economic life of its own*".[625]

Cannot

The expression "cannot" refers to the objective capacity of a maritime feature to sustain human habitation or economic life. The simple fact that a certain feature is not habited or does not have an economic life does not necessarily mean that objectively, it does not have the capacity and the potential, or is

622 Ibid., para. 493.

623 See article 31 and 32 of the Vienna Convention on the Law of the Treaties, done at Vienna on 23 May 1969 and entered into force on 27 January 1983, UNTS 331. Accessed October 25, 2016. https://treaties.un.org/doc/Publication/UNTS/Volume%201155/volume-1155-I-18232-English.pdf.

624 This was also the interpretation raised by the ICJ in the *ICJ case between Nicaragua v. Colombia*,

para. 37.

625 *The South China Sea Award on Merits,* para. 482.

unable to offer conditions to human habitation or economic life in the future. Nevertheless, the court considered that the existence of historic evidence of those facts would certainly be a relevant indication of its capacity.

The determination of this objective capacity has no relation with the question of sovereignty over it and does not require any prior decision on that.[626] This was an important question for the South China Sea Case, due to the fact that the arbitral tribunal had no jurisdiction to rule on questions regarding sovereignty, which were excluded from the UNCLOS compulsory settlement procedures by China's declaration in 2006 under the article 298 (1).

Sustain

The tribunal considered that the term "*sustain*" used in the article 121 (3) with reference both to "*human habitation*" and "*economic life*" has been employed in its ordinary meaning. Consequently, sustain means to support and provide minimal essentials over a period of time that are enough to ensure human subsistence with proper standards and to allow the development and maintenance of an economic activity. This includes the provisions of drinks, food, and other basic supplies to ensure human presence and the continuation of an economic activity. When assessing this capacity, one should address comprehensively its tree inter-related components as identified by the court: the provision of essentials not only in quantity, but also in quality, and its existence over a period of time not merely a limited intermittent phase.[627]

Human habitation

For a rock to sustain human habitation shall be capable of providing basic resources, such as food, water and shelter in sufficient quantities and quality to enable a group of people or a community to live and survive permanently. If a certain feature lacks any vegetation, drinkable water, and foodstuffs, it probably has no capacity to sustain human habitation. Despite this, UNCLOS does not provide any guidance on the threshold separating the simple presence of humans and human habitation. In the tribunal's view, human habitation involves more than a mere survival of humans, and the intermittent or sporadic presence of people in a rock does not transform it into an Island. "*The term habitation implies a non-transient presence of persons who have chosen to stay and reside on the feature in a settled manner*".[628] A stable

626 Ibid., para. 545.

627 Ibid., para 487.

628 Ibid., 489.

community composed of groups of families that find their livelihoods and consider the feature has a home, even if just for certain period of life, must exist, for this purpose. This encompasses several forms of human habitation and livelihoods and includes both indigenous and non-indigenous people that may only reside in the feature periodically or on a nomad base, which traditionally occur in many isolated and remote areas.

Or

For a rock to be considered a fully entitled island for the purpose of the article 121, it must have the capacity to sustain either human habitation or economic life of their own. Refusing the Philippines argument that both are required, [629] it was the tribunal's decision that article 121 (3) is disjunctive, and accordingly, just one of these criteria suffice to comply with the provisions of the UNCLOS. Nevertheless, it was also recognized that normally and in practical terms, the existence of economic life of its own requires the presence of stable human community[630] and vice versa. As noted in the Award economic activities are carried out by humans, and humans "*will rarely inhabit areas where no economic activity or livelihood is possible*". [631]

Economic life of their own

The expression "*economic life*" was interpreted as to refer to the capacity of the feature to be able to have the conditions to allow an ongoing and sustained economic activity to flourish over a certain period of time. However, for a rock to be a fully entitled island it needs to support economic life "*of their own*". This means that its capacity and ability must be native, and come from the feature itself, and not provided by external or imported sources, or artificial additions, as it would be the case, for instance, of extractive industries[632] carried out without involving the local population, and the mere presence of official or military population serviced from outside.

In the same token, for this consideration, the economic activities undertaken

629 Ibid., para. 494.

630 However, this assessment shall not preclude the possibility of considering that a community might be able to inhabit and undertake an economic activity through a network of maritime feature, as expressly recognized by the court. Ibid., para. 547.

631 Ibid., para. 496.

632 Extractive industries can be eventually considered if they involved and served the local communities but alone cannot be considered as an economic life of their own for the effect of the article 121. Ibid., para 543.

on the sea, ultimately in the continental shelf and in the EEZ shall not be considered for this purpose. An economic activity in the territorial sea might eventually be "*part of the economic life of a feature, provided that it is somehow linked to the feature itself, whether through a local population or otherwise*".[633] The fishing activity carried out around a rock without any connection or use of it does not suffice to grant a rock an economic life of their own.

5. Going further

In the tribunal's point of view, article 121 (3) does not preclude the possibility of considering that a community might be able to inhabit and undertake an economic activity through a network of remote maritime feature that collectively might be able to sustain human habitation and economic life.[634] The UNCLOS wording does not directly support this interpretation, however, tribunal noted that it is important to admit the possibility of addressing a collective capacity of certain features that are used as such by local populations for their livelihoods.

In addition to the above, and based on the rational that presided the creation of the EEZ, the tribunal has introduced a close connection between its purpose of benefiting the population of the coastal state and the limitation provided for in the article 121 (3). In fact, if a rock cannot sustain human habitation, there is no need to be entitled to an EEZ, since the population to whom it was conceived to benefit, does not exist.[635] The creation of 200 nautical miles EEZ was introduced as a compromise to satisfy both traditional fishing nations and coastal states, the latest eager to extend its jurisdiction and grant the natural resources to its population. Linking both concepts, the tribunal concluded that "*the human habitation with which the drafters of the Article 121(3) were concerned was the habitation by a portion of the population for whose benefit the exclusive economic zone was being introduced*".[636]

Moreover, based on the idea that a feature is to be analysed based on its natural condition, the court went further in terms of legal hermeneutic and suggested that article 121 (3) shall be analysed in the context of the

633 Ibid., para. 503.

634 This is very often found on remote islands where communities main a traditional lifestyle and rely on different features to ensure its livelihoods. Ibid., para 547.

635 Ibid., para 513 - 520.

636 Ibid., para 520.

UNCLOS as a whole.[637] As a result, the tribunal defended that the UNCLOS wording "*cannot sustain human habitation or economic life of their own*" actually means "*cannot without artificial addition sustain human habitation or economic life of their own*." This is the solution that is able to ensure that states cannot extend its jurisdiction by converting rocks into a fully entitled island through constructions, supply of external resources, use of technology or land reclamation, and maintains the integrity of common heritage of mankind,[638] which would be otherwise threatened.

This objective capacity will vary from one feature to another, and must be addressed on a case-by-case basis and considering other relevant factors such as climate, the proximity to other inhabited areas, and the potential for livelihoods around the feature[639]. Historical data indicating human habitation or economic life would be, however, the most reliable evidence of the capacity of a maritime feature. Consequently, if certain feature has never been inhabited or sustain economic life, without any external reason such as war, disasters, pollution, etc. it is because the feature probably lacks such capacity.[640]

VI. Implications in the high-tide features in The South China Sea

As a result of the previous considerations, and the evidence recorded after undertaking a comprehensive analyses of the maritime features involved, the court ruled that the high-tide features identified, namely Scarborough shoal, Johnson Reef, Cuarteron Reef, and Fiery Cross Reef, Gaven Reef North, and McKenna Reef are all rocks,[641] since in their natural condition, are not capable of sustaining human habitation or economic life of their own. Most of the features have a limited size, lack water, vegetation and living spaces, and even with the presence of some economic activity, as it was the case of the Scarborough shoal, most of the activity was depended on external supply, as it was also the case of the Cuarteron Reef and Fiery Cross Reef. Using the

637 In order to main the spirit and the consistency of the Convention, the interpretation of article 121 (3) must consider the legal regime set forth for fully entitled islands, low-tide elevations, and submerged features.

638 *The South China Sea Award on Merits, ibid.* para. 509, where the court endorsed the Philippines position.

639 Ibid., para. 546.

640 Ibid.,. para. 549.

641 Ibid., para. 554.

same line of argument, when it comes to the Spratly Islands[642] considered as a single unit, despite the existence of some sort of vegetation, presence of governmental personal, and evidence attesting the historical presence of small number of fishermen, mining and fishing activities, in the main high-tide feature, Itu Aba, the court concluded that the Spratly Islands lack the capacity to sustain human habitation or economic life of their own. The records of presence of fishermen and mining activities were seen as merely temporary and transient actions in order to obtain an economic benefit, and it was not activities aimed at supporting a new life for the inhabitants of the features.[643]Similarly, the presence of military officials and other government personnel[644] were not considered, since they were placed there on purpose and rely on external suppliers.[645] Being considered as rocks, for the purpose of article 121, none of the high-tide maritime features in the South China Sea generates EZZ or continental self.

VII. Concluding remarks

The UNCLOS sets forth "*a legal order for the oceans*",[646] and establishes in Part VII, the legal regime applicable to islands, which reflects customary international law.[647] Despite this fact, there is no uniformity regarding the interpretation of the article 121 (3), and the state practice is not consistent or homogeneous,[648] which originates not only different actions towards

642 It shall be noted that, although the Philippines did not request the court to address the status of the features in the Spratly Islands, this was a necessary step in order to assess the Philippines submission No. 5 and to decide whether or not Mischief Reef and Second Thomas Shoal were part of the EEZ and continental shelf of the Philippines. *See The South China Sea Award on Merits, ibid.* para. 399.

643 Ibid., para. 619.

644 As noted by the Philippines in the Merits Hearings, Vietnam and Malaysia have both stationed troops on some Spratly Island features and have not claimed that as fully entitled islands. Ibid., para. 418.

645 Ibid., para. 620.

646 See the UNCLOS preamble.

647 See Andew J. Jacovides, "Islands," *Peaceful Order in the World's Ocean: Essays in Honor of Satya N. Nandan*, ed. Michael W. Lodge and Myron H. Nordquist (Leiden, Boston: Brill, Nijhoff, 2014) 90.

648 One can give as an example, the position adopted by China, when contesting the 2008 Japan's submission to the CLCS, where it has defended that Oki-no-Tosi-Shima, is a rock for the purpose of the article 121 (3), and has highlighted that this feature on its

maritime features, but also divergences, expressed by verbal notes, and in some instances, litigation before international courts, mainly involving delimitation and maritime borders.

The South China Sea Arbitral Award, without touching on the question of sovereignty or delimitation, was the first decision released that gives a significant contribution to the interpretation of the article 121 (3). The decision supports the UNCLOS distinction between naturally formed areas and artificial islands, by emphasizing that maritime features shall be considered in their natural condition, and notes the irrelevance of any human construction or modification, which shall, by no means, be considered for the classification of a maritime feature.

Details on the criteria to classify maritime feature as rocks or islands were put forward, and a case-by-case analysis was undertaken in order to conclude that the high-tide features in the South China Sea, including the Spratly Islands group, are all rocks for the purpose of the article 121 (3), and accordingly are not entitled to an EEZ or continental shelf.

natural condition, cannot sustain human habitation or economic life of its own. *See The South China Sea Award on Merits,* para. 451 to 458. This was a totally different approach when it comes to the maritime features in the South China Sea.

10

ARCHIPELAGOS AND ARCHIPELAGIC STATES IN THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

Vasco Becker-Weinberg

I. Introduction

The subject of territorial seas of archipelagos was one of the novel and controversial aspects introduced by the *United Nations Convention on the Law of the Sea* (UNCLOS),[649] even though the archipelago concept had been developing since the 19th century and several attempts had been made over the years to settle the matter, although unsuccessfully.[650]

649 *United Nations Convention on the Law of the Sea*, done at Montego Bay on 10 December 1982 and entered into force on 16 November 1994, published at 1833 U.N.T.S. 3 [UNCLOS]

650 Hiran W. Jayewardene, *The Regime of Islands in International Law* (Martinus Nijhoff Publishers: Dordrecht, 1990), pp. 113-126. Also *see* Hugo Caminos and Vincent P. Cogliati-Bantz, *The Legal Regime of Straits* (Cambridge University Press: Cambridge, 2014), p. 170-176; Mohamed Munavvar, *Ocean States: Archipelagic Regimes in the Law of the Sea* (Martinus Nijhoff Publishers: Dordrecht, Boston, Leiden, 1995), pp. 53-97.

Perhaps one of the most significant and early efforts made was that by the International Law Commission (ILC) at the Preparatory Committee of the Codification Conference that took place in The Hague, in 1930.[651]

The ILC tried to address the issue of territorial seas of archipelagos and in particular the identification of the treatment that should be applicable to the waters surrounding islands that formed a geographical unit, *i.e.* should each island be considered a unit and therefore have its own territorial sea, or should the territorial sea be measured from baselines surrounding the unit of islands? For example, the Philippines at the time had already considered that the archipelagic nature of certain States should be taken into consideration.[652]

The ILC mentioned in its commentary to the draft article on islands in the high seas and in the territorial sea, that the territorial sea of islands should partly coincide with the territorial sea of the mainland and should, therefore, be taken into account when determining its outer limit.[653] In fact, the ILC intended to have followed up with a provision on groups of islands, but the Conference was not able to overcome the difficulties involved and, consequently, did not manage to advance any further on the matter. As a result, the ILC expressed its expectation that the matter could be settled in a subsequent international conference.[654]

Another important development regarding the legal regime of archipelagos was the *Anglo-Norwegian Fisheries Case*, where the International Court of Justice (ICJ) distinguished coastal archipelagos from mid-ocean archipelagos on dealing with the application of a system of baselines.[655]

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651 *Yearbook of the International Law Commission* (II-1956).

652 Max Sørensen, "The territorial sea of archipelagos", in: 6 *Netherlands International Law Review* (1959), p. 320.

653 Article 10: "*Every island has its own territory sea. An island is an area of land, surrounded by water, which in normal circumstances is permanently above high-water mark.*"

654 *Regime of the High Seas and Regime of the Territorial Sea* (Document A/CN.4/97), Report by J.P.A. François, in: 2 *Yearbook of the International Law Commission* (1956), p. 270. On the work of the Preparatory Committee of the Codification Conference and the consideration of "mid-ocean archipelagos" and the measurement of their territorial sea, *see* Sørensen, pp. 315-331.

655 *Fisheries Case, Judgment of 18 December 1951, I.C.J. Reports 1951 (United Kingdom v. Norway)*, p. 131: "*The Court now comes to the question of the length of the base- lines drawn across the waters lying between the various formations of the "skjærgaard". Basing itself on the analogy with the alleged general rule of ten miles relating to bays, the United Kingdom Government still maintains on this point that the length of straight lines must not exceed ten miles. In this*

In this case, the Court was asked by the United Kingdom and Norway to decide if the Norwegian application of straight baselines was in conformity with international law. In so doing, the ICJ had to take into consideration where the baselines had to be drawn from, *i.e.* the mainland, or the features bordering the mainland known as the Norwegian Skjaergaard.[656] The Court concluded that Norway's identification of baselines from these features was not contrary to international law.[657]

It was based on this notion put forward by the ICJ concerning baselines of coastlines deeply indented and cut into, or where there is a fringe of islands along the coast, that was later adopted in Article 4(1) of the *Geneva Convention on the Territorial Sea and the Contiguous Zone*.[658]

However, concerning the matter of territorial sea of islands, the situation remained unresolved due to its complexity,[659] despite efforts made during the negotiation of the 1958 Convention on the Territorial Sea and the

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connection, the practice of States does not justify the formulation of any general rule of law. The attempts that have been made to subject groups of islands or coastal archipelagoes to conditions analogous to the limitations concerning bays (distance between the islands not exceeding twice the breadth of the territorial waters, or ten or twelve sea miles), have not got beyond the stage of proposals. Furthermore, apart from any question of limiting the lines to ten miles, it may be that several lines can be envisaged. In such cases the coastal State would seem to be in the best position to appraise the local conditions dictating the selection. Consequently, the Court is unable to share the view of the United Kingdom Government, that "Norway, in the matter of base-lines, now claims recognition of an exceptional system". As will be shown later, all that the Court can see therein is the application of general international law to a specific case."

656 The Norwegian Skjaergaard is the coastal archipelago that "*stretches out almost all along the coast of Norway forming a fence or a marked outer coastline towards the sea. It consists of some 120,000 islands, islets and rocks, and lies along the whole of the coast of the mainland from the southern extremity to the North Cape.*" Munavvar, p. 15.

657 For an appraisal of the judgement, *see* C. John Colombos, *The International Law of the Sea*, 6th edition, (David McKay Company Inc.: New York, 1967), pp. 114-119. Also *see* Jayewardene, pp. 129-130.

658 *Convention on the Territorial Sea and Contiguous Zone*, done at Geneva on 29 April 1958 and entered into force 10 September 1964, published at 516 U.N.T.S. 205 [1958 Convention on the Territorial Sea and Contiguous Zone]. In this respect, *see* L. L. Herman, "The modern concept of the off-lying archipelago in international law", in: 23 *The Canadian Yearbook of International Law* (1985), p. 176. Article 4(1) reads: "*In localities where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the method of straight baselines joining appropriate points may be employed in drawing the baseline from which the breadth of the territorial sea is measured.*"

659 Herman, p. 176. Also *see* Jayewardene, p. 103.

Contiguous Zone and the already existing State practice.[660] Indeed, Article 1 of the 1958 Convention on the Territorial Sea and the Contiguous Zone made no recognition of archipelagic waters regarding the definition of the territorial sea.[661]

This state of affairs prompted the conclusion of Max Sørensen that "[o]*n both occasions disagreement as to what the law is, was just as great as divergencies as to what the law should be.*" In this respect, Sørensen identified three essential questions concerning archipelagos:

"*1) What is the greatest permissible distance between the islands at the circumference of the group?*

2) Is there any maximum permissible distance between the islands within the group, even in cases where the distance between islands at the circumference does not exceed the permissible maximum?

3) What is the status of the waters between the islands?"[662]

In addition to not solving the issue of archipelagos, Article 10(2) of the 1958 Convention on the Territorial Sea and the Contiguous Zone[663] made no mention of off-lying archipelagos, thus applying the same regime to *all* islands regardless of the relevant circumstances.[664]

Some of the specific outstanding issues resulting from the 1958 Convention on the Territorial Sea and the Contiguous Zone were the length and limits of baselines, the status of the waters enclosed by the same and the freedom

660 Jens Evensen, *Certain legal aspects concerning the delimitation of the territorial sea of archipelagos* (Doc. A/Conf.13/18), [online: http://legal.un.org/diplomaticconferences/lawofthesea-1958/docs/english/vol_I/17_A-CONF-13-18_PrepDocs_vol_I_e.pdf (accessed on May 2016)]. Also *see* Sørensen, pp. 324-326. On State practice and early archipelago proposals, *see* D. P. O'Connell, "Mid-ocean archipelagos in international law", in: 45 *The British Year Book of International Law* (1971), pp. 1-52; Barry Hart Dubner, *The Law of Territorial Waters of Mid-Ocean Archipelagic States* (Martinus Nijhoff: The Hague, 1976), pp. 29-52.

661 "*1. The sovereignty of a State extends, beyond its land territory and its internal waters, to a belt of sea adjacent to its coast, described as the territorial sea. 2. The sovereignty of a coastal State extends to the air space over the territorial sea as well as to its bed and subsoil.*"

662 Sørensen, p. 317

663 Article 10(2) reads: "*The territorial sea of an island is measured in accordance with the provisions of these articles.*"

664 Herman, p. 176. Article 10 reads: "*The territorial sea of an island is measured in accordance with the provisions of these articles.*"

of navigation within.[665] The significance of these matters resulted that early archipelagic claims were met with protests.[666] This would also be the case during the Third United Nations Conference on the Law of the Sea (UNCLOS III).[667]

The impasse lead O'Connell to conclude that "[t]*he only progressive approach then, is to seek to integrate the archipelagic principle in existing international law in such a way as to accommodate the interests of the archipelagic State without disproportionately affecting the interests of other States and of the world at large.*"[668]

These interests were essentially economic, including fishing and control of inter-island traffic, as well as security, preventing smuggling and illegal entry, and control of pollution.[669]

The recognition of the specificity of archipelagic States and of the territorial unity of archipelagic States was one of the most innovative and controversial matters at UNCLOS III.[670]The fact that archipelagos were considered together with the regime on straits,[671] lead to concessions being made by the then 'maritime powers' to the Archipelagic States Group[672] when addressing the concerns of the former regarding straits used for international navigation.[673]

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665 *Ibid.*, pp. 327-328.

666 O'Connell, pp. 60-69.

667 Miles, pp. 253, 256. Also *see* J. Ashley Roach and Robert W. Smith, *Excessive Maritime Claims*, 3rd edition (Martinus Nijhoff Publishers: Lieden, Boston, 2012), pp. 203-218,

668 O'Connell, p. 75. This author also underlined his view that: "[t]*he problem is that the conceptual structure of the Law of the Sea is too rigid to take account of the diversity of situations, the complexity of interests and the range of apprehensions. The threefold division of the sea into high seas, territorial seas and internal waters, is too simplistic, while the arithmetical approach of fixed limits and the geographical approach of general definitions works to the advantage or disadvantage of States in too arbitrary a fashion to be tolerable.*" On the "*rationale underlying archipelagic claims*" and "*the countervailing interests*", *see* Jayewardene, p. 106-113.

669 R. R. Churchill and A. V. Lowe, *The Law of the Sea*, 3rd edition (Manchester University Press: Manchester, 1999), pp. 119-120.

670 Miles, pp. 17 and 48.

671 On the negotiation on archipelagos during UNCLOS III, *see* Edward L. Miles, *Global Ocean Politics: The Decision Process at the Third United Nations Conference on the Law of the Sea 1973-1982* (Martinus Nijhoff Publishers: The Hague, Boston, London, 1998), pp. 165-169.

672 The Archipelagic States Group was formed at the Caracas Session in 1974 and included Indonesia, the Philippines, Fiji, Mauritius and Malaysia. *See* Miles, p. 28.

673 Miles, pp. 70, 89-90, 203-204, 237, 242. Also *see* Dubner, pp. 54-65.

However, the settlement of the legal regime on archipelagos and archipelagic States does not mean that all States that claim the status of archipelagic States can in fact qualify as such under UNCLOS. In a survey of the United Nations on claims made by States to maritime jurisdiction dated 15 July 2011, twenty-two States claimed the status of archipelagic States, all of which are parties to UNCLOS.[674]

Moreover, in addition to the claim and legal characterization of States as archipelagic, it is also necessary that these States bring their legislation in conformity with the concept of archipelagic waters established in UNCLOS. Indeed, as it will be subsequently analysed, although the construction of archipelagic baselines is not mandatory, the lack of conformity with the qualification of a State as being archipelagic will prevent the said State from drawing archipelagic baselines.

The relevant provisions of UNCLOS dealing with archipelagic States and archipelagos are included in Part IV of the Convention, more precisely in Articles 46 to 54 of the Convention. These can be divided into four distinctive legal elements: the definition of an 'archipelagic State' and of 'archipelago',[675] the drawing of archipelagic baselines,[676] the status of archipelagic waters,[677] and the right of innocent passage[678] and the right of archipelagic sea lanes passage.[679] The right of innocent passage and the right of archipelagic sea lanes passage will be referred to when addressing the status of archipelagic waters.

II. The legal definition of an 'archipelagic State' and of 'archipelago'

The legal definitions of 'archipelagic State' and of 'archipelago' included in

674 Antigua and Barbuda, Bahamas, Cape Verde, Comoros, Dominican Republic, Fiji, Grenada, Indonesia, Jamaica, Kiribati, Maldives, Marshall Islands, Mauritius, Papua New Guinea, Philippines, Saint Vincent and the Grenadines, Sao Tome and Principe, Seychelles, Solomon Islands, Trinidad and Tobago, Tuvalu, Vanuatu. *See Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, United Nations*, [online: http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/table_summary_of_claims.pdf (accessed May 2016)].

675 Article 46 of UNCLOS.

676 Article 47 of UNCLOS.

677 Article 49 of UNCLOS.

678 Article 52 of UNCLOS.

679 Article 53 of UNCLOS.

Article 46 of UNCLOS[680] only slightly diverge from those included in an early draft presented by Fiji, Indonesia, Mauritius and the Philippines to the United Nations Seabed Committee, in 1973.[681] Fiji was in fact a prominent supporter of the introduction in UNCLOS of the archipelagic concept and in particular Ambassador Satya Nandan for his central role as the rapporteur of the Committee also dealing with the matter of archipelagos.[682]

Specifically regarding the definition of archipelago, O'Connell underlined the importance of the "*centripetal emphasis*" of the relationship between the different islands and features, which is also implicit in the notion of unit included in the definition of 'archipelago' in UNCLOS.[683]

The legal definition of 'archipelagic State' in UNCLOS is quite straightforward and corresponds to a total archipelagic State, such as the Philippines, where the whole of the territory of one State corresponds to an archipelago.[684]

However, with respect to the concept of 'archipelago', the definition is not as straightforward. Accordingly, there must be a group of islands closely interrelated, through interconnecting waters, which form a unit that is an intrinsic geographical, economic and political entity, or which historically have been regarded as such.

This definition encompasses the notion of entity in three different perceptions: geographical, economic and political. In this regard L. L.

680 Article 46 reads: "*a) "archipelagic State" means a State constituted wholly by one or more archipelagos and may include other islands; b) "archipelago" means a group of islands, including parts of islands, interconnecting waters and other natural features which are so closely interrelated that such islands, waters and other natural features form an intrinsic geographical, economic and political entity, or which historically have been regarded as such.*"

681 Herman, p. 173.

682 Miles, pp. 165-166.

683 "*The essence of the mid-ocean archipelago theory is that a such a relationship exists between the features themselves, so that a situation exists which is analogous to that of a complex coast of a continental country. In a sense a group of islands cannot be an archipelago without a centripetal emphasis which gives coherence to the whole, and expresses itself in an outer periphery which is the equivalent of the 'general direction of the coast'.*" *See* O'Connell, p. 15.

684 Beyond the legal definition of 'archipelagic State' under UNCLOS, it is possible to consider two additional types of geo-politically outlying or mid-ocean archipelagos. These are the composite archipelagic State, where a part or parts of an outlying archipelago may comprise an archipelagic State or part thereof, and the State archipelago or a offlying archipelagos, which are archipelagos that are part of a State. *See* Jayewardene, pp. 104, 134-142. Also *see* Munavvar, pp. 14-23, 110-122.

Herman referred to the three entity tests of an archipelago observing that "*all instances of archipelagic claims will have to be scrutinized to determine whether an intrinsic archipelagic entity exists as a first step.*"[685]

The definition of archipelago also refers that a group of islands, including parts of islands, interconnecting waters and other natural features may constitute an archipelago if historically they have been considered as such. This presents with some added difficulty, namely regarding the determination of whom or which authority or body is competent to make such an assessment, and how does one demonstrate that this is in fact an assessment based on historical evidence.[686]

It would seem, nonetheless, that similar to the delimitation of maritime boundaries, the unilateral claim of a State regarding its archipelagic status should not be admissible or opposable to other States, particularly if such a qualification is disputed by another State. This is the case, for example, if the archipelagic baselines would comprise disputed islands or features.[687] Neither should the mere denial of a dispute by a claiming archipelagic State demonstrate its non-existence, particularly if such a claim is positively opposed by another State.[688]

It remains, therefore, that, as in the case of the delimitation of maritime boundaries, it is for the States asserting or putting forward facts and contentions to support their claims and that have the respective burden of proof.[689] As for acts and activities developed for the purpose of improving or creating the appearance of a legal title or evidence of sovereignty or jurisdiction over maritime features, the ICJ has reiterated that these can only be considered if the other State can not make out a superior claim.[690]

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685 Herman, pp. 179-181. Also *see* Jayewardene, p. 142. Also *see* Munavvar, pp. 24-37.

686 Herman, p. 181.

687 *Ibid.*, pp. 183-184. Article 6(1) of the 1958 Convention on the Continental Shelf and Articles 74(1) and 83(1) of UNCLOS. *See Delimitation of the Maritime Boundary in the Gulf of Maine Area, Judgment, I.C.J. Reports 1984*, paras. 87, 89, 112-113.

688 *Applicability of the Obligation to Arbitrate under Section 21 of the United Nations Headquarters Agreement of 26 June 1947, Advisory Opinion, I.C.J. Reports 1988*, paras. 37-38; *Interpretation of Peace Treaties, Advisory Opinion: I.C.J. Reports 1950*, p. 74; *Case concerning Northern Cameroons (Cameroon v. United Kingdom), Preliminary Objections, Judgment of 2 December 1963: I.C.J. Reports 1963*, p. 27; *Case of the Mavrommatis Palestine Concessions*, *Judgment, 1924 P.C.I.J., Series A, No. 2*, pp. 11-12; *Case concerning the Temple of Preah Vihear (Cambodia* v. *Thailand), Merits, Judgment of 15 June 1962, I.C.J. Reports 1962*, pp. 30-33; *Aegean Sea Continental Shelf, Judgment, I.C.J. Reports 1978*, paras. 84-85.

689 *Case concerning the Temple of Preah Vihear*, p. 16.

690 *Legal status of Eastern Greenland, Judgment, 1933 P.C.I.J. Series A/B, No. 53,* p. 46.

It should be noted that UNCLOS does not clarify if one State's archipelagic status is dependent of fact or declaration.

The ICJ in the *Maritime Delimitation and Territorial Questions between Qatar and Bahrain* did not fully address this question when Bahrain put forward its claim as an archipelagic State and its right to draw archipelagic baselines pursuant to Article 47 of UNCLOS, since it failed to do so in its submission to the Court.

Bahrain had based its claim on the fact that its ratio of sea to land was within that established in Article 47 of UNCLOS, even though, at the same time, recognizing that it never formalized the claim by declaring itself an archipelagic State.[691]

Qatar, on the other hand, contested Bahrain's position on the grounds that this country never formalized its claim as an archipelagic State, and because its claim did not meet the requirements of the Convention. Qatar was of the view that since Part IV of UNCLOS had not become part of customary law, it could not be opposable to it, and that any claim made by Bahrain concerning archipelagic baselines would be irrelevant for the purpose of maritime delimitation.[692]

Therefore, in light of the aforementioned, the definition of an archipelago and of an archipelagic State maybe disputed by other States and must, consequently, be asserted on a case-by-case basis, taking into account the claim put forward by the relevant State and its conformity with the relevant legal regime included in UNCLOS.

III. The drawing of archipelagic baselines

The purpose of archipelagic baselines is to draw a baseline surrounding the archipelago, thus enclosing in the waters within all features, whether or not entitled to project maritime zones under the law of the sea. This is the case, for example, of rocks that do not have the ability to sustain human habitation or economic life of their own and therefore can only project a territorial sea.[693] As a result, as long as part of an archipelago, features can be included

691 *Maritime Delimitation and Territorial Questions between Qatar and Bahrain (Qatar v. Bahrain), Merits, Judgment, I.C.J. Reports 2001*, paras. 181, 183.

692 *Ibid.*, para. 182.

693 Article 121(3) of UNCLOS.

for the purpose of drawing baselines, from which an EEZ and continental shelf may be projected.[694]

The ICJ in the aforementioned case on the *Maritime Delimitation and Territorial Questions between Qatar and Bahrain* considered that having being called upon to draw a single maritime boundary in accordance with international law, it could only do so by applying customary law.[695] The Court recognized that the method of straight baselines was an exception and one that could only be applied if a number of conditions were met, namely if the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity.

The Court considered that the coasts of Bahrain were not deeply indented and cut into, but that the maritime features off the coast of the main islands could be assimilated to a fringe of islands that constituted a whole with the mainland, even though the ICJ did not qualify them as such, as a result of their small number.[696]

Furthermore, the ICJ also did not apply the method of straight baselines because Bahrain did no declare itself to be an archipelagic State under Part IV of UNLCOS,[697] and that, as a result, each one of the maritime features would have its own effect for the purpose of drawing baselines, with disregard of the low-tide elevations situated in the overlapping zone of territorial seas.[698]

The 1958 Convention on the Territorial Sea and the Contiguous Zone made no reference to the concepts of 'archipelagos' or 'archipelagic States' and therefore made no exception to the rule provided for the drawing of baselines of the territorial sea. This only occurred with Part IV in UNCLOS and consequently the recognition in Article 2 of the distinctive case of archipelagic States concerning the drawing of baselines of the territorial sea.

The exception to the general rule regarding the baselines of the territorial sea is complemented by the special regime applicable to the drawing of archipelagic baselines which is detailed in Article 47 of UNCLOS. Some of

694 Article 48 of UNCLOS reads: "*The breadth of the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf shall be measured from archipelagic baselines drawn in accordance with article 47.*"

695 *Maritime Delimitation and Territorial Questions between Qatar and Bahrain*, para. 183.

696 *Ibid.*, paras. 212 to 214.

697 *Ibid.*, para. 214.

698 *Ibid.*, para. 215.

the wording of this provision is similar to that used in Article 7 of UNCLOS, as well as in Article 4 of the 1958 Convention on the Territorial Sea and the Contiguous Zone.

As previously mentioned, the possibility of drawing archipelagic baselines pursuant to Article 47 of UNCLOS is dependent on the qualification of a State as archipelagic, defined as such in accordance with Article 46 of the Convention. This is too the overall sense of paragraph 3 of the said Article 47 of UNCLOS.[699]

It should be noted, however, that the express reference in Article 47(1) of UNCLOS to islands and drying reefs, with exclusion of other features, might leave room for doubt regarding low-tide elevations that may also be 'drying', but do not have built on them a lighthouse or similar installations that are not permanently above sea level, or when situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the nearest island, as referred in Article 47(4) of UNCLOS.[700]

The understanding that such low-tide elevations could be considered would be a significant departure from Articles 7(4)[701] and 13[702] of UNCLOS, since these provisions do not take into consideration low-tide elevations for the purpose of drawing baselines, whether drying or not.[703]

699 Article 47(3) of UNCLOS reads: "*The drawing of such baselines shall not depart to any appreciable extent from the general configuration of the archipelago*". *See* Munavvar, pp. 127-128. On the delimitation of baselines around mid-ocean archipelagos, *see* Jayewardene, pp. 126-133, 149-150.

700 "*Such baselines shall not be drawn to and from low-tide elevations, unless lighthouses or similar installations which are permanently above sea level have been built on them or where a low-tide elevation is situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the nearest island.*"

701 Article 7(4) of UNCLOS reads: "*Straight baselines shall not be drawn to and from low-tide elevations, unless lighthouses or similar installations which are permanently above sea level have been built on them or except in instances where the drawing of baselines to and from such elevations has received general international recognition.*"

702 Article 13 of UNCLOS reads: "*1. A low-tide elevation is a naturally formed area of land which is surrounded by and above water at low tide but submerged at high tide.Where a low-tide elevation is situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the mainland or an island, the low-water line on that elevation may be used as the baseline for measuring the breadth of the territorial sea. 2.Where a low-tide elevation is wholly situated at a distance exceeding the breadth of the territorial sea from the mainland or an island, it has no territorial sea of its own.*"

703 Herman, pp. 192-193.

Article 47(1) of UNCLOS also refers that straight baselines may be drawn to joint the outermost points of the outermost islands and drying reef, as long as such baselines include within the main islands of the archipelago and an area in which the ratio of the area of the water to the area of the land, is between 1 to 1 and 9 to 1.

The water-land ratio mentioned in this provision is "*a measure of reasonableness of the enclosure*,"[704] which resulted from the negotiations during UNCLOS III.[705] It provides a notion of proportionality between the waters enclosed by archipelagic baselines and its land surface.[706]

According to Victor Prescott and Clive Schofield, this numerical ratio divides archipelagic States into three categories: States that cannot enclose an area of waters equal to the area of land; States that cannot restrict the enclosed water area to less than nine times the area of land; and States that can enclose waters within the determined ratios, these being the only ones that can draw archipelagic baselines.[707]

Article 47(2) of UNCLOS further includes limits to the length of straight baselines drawn around archipelagos in order to implement a criterion of adjacency in determining the reasonableness of the distance between base-points.[708] Accordingly, the length of these baselines may not exceed 100 nautical miles (nm), with the exception of up to 3 per cent of the total number of baselines enclosing any archipelago, up to a maximum length of 125 nm.[709]

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704 Jayewardene, p. 145.

705 *Ibid.*, pp. 145-146.

706 Also *see* Article 47(7) of UNCLOS: "*For the purpose of computing the ratio of water to land under paragraph 1, land areas may include waters lying within the fringing reefs of islands and atolls, including that part of a steep-sided oceanic plateau which is enclosed or nearly enclosed by a chain of limestone islands and drying reefs lying on the perimeter of the plateau.*"

707 Victor Prescott and Clive Schofield, *The Maritime Political Boundaries of the World*, 2nd edition (Martinus Nijhoff Publishers: Leiden, Boston, 2004), p. 176. "*The lower ratio within archipelagic baselines will lie between 1:1 and 9:1. The lower ratio was selected to exclude those archipelagos that are dominated by one or two large islands or part of islands between which there are comparatively small areas of interconnecting seas.* (…) *The upper ratio was selected to exclude those widely dispersed archipelagos* (…)." Also *see* Munavvar, pp. 130-131.

708 Jayewardene, pp. 147-149. On the adoption of this criterion, *see* Munavvar, pp. 131-132.

709 Article 47(2) reads: "*The length of such baselines shall not exceed 100 nautical miles, except that up to 3 per cent of the total number of baselines enclosing any archipelago may exceed that*

Lastly, similar to the territorial sea,[710] EEZ[711] and continental shelf,[712] too archipelagic States have the obligation to give due publicity of their respective archipelagic baselines.[713]

IV. The status of archipelagic waters

The very notion of archipelagic waters has a direct impact on the freedoms that all States enjoy in the high seas, since archipelagic waters, or part thereof, would otherwise be considered as being part of the high seas.[714] For this purpose the concept of archipelago is extremely important,[715] since without it there would be no possibility to determine which States would be entitled to claim and apply the archipelagic concept, and to which islands and features could this concept be applied to.[716]

Pursuant to Article 49 of UNCLOS, archipelagic States exercise rights of sovereignty in the waters enclosed by the archipelagic baselines, regardless of their depth or distance from the coast, as well as in the air space over the archipelagic waters, soil and subsoil and their resources contained.

Furthermore, in accordance with Article 50 of UNCLOS, within the archipelagic waters, the respective States may draw closing lines for the delimitation of internal waters in accordance with the Convention.[717] However, it should be recalled that according to Article 47(5) of UNCLOS, the system of archipelagic baselines should not cut off from the high seas or the exclusive economic zone the territorial sea of another State.

length, up to a maximum length of 125 nautical miles."

710 Article 16 of UNCLOS.

711 Article 75 of UNCLOS.

712 Articles 76(9) and 84 of UNCLOS.

713 Article 47(8) and (9) of UNCLOS: "*8. The baselines drawn in accordance with this article shall be shown on charts of a scale or scales adequate for ascertaining their position. Alternatively, lists of geographical coordinates of points, specifying the geodetic datum, may be substituted. 9. The archipelagic State shall give due publicity to such charts or lists of geographical coordinates and shall deposit a copy of each such chart or list with the Secretary-General of the United Nations.*"

714 Article 87 of UNCLOS. Article 86 of UNCLOS determines that the provisions of UNCLOS applicable to the high seas apply to all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State.

715 Jayewardene, p. 134.

716 Munavvar, p. 107.

717 Articles 9, 10 and 11 of UNCLOS.

Although "*the regime of archipelagic waters is one that is generous to archipelagic States*",[718] the sovereignty of archipelagic States over their archipelagic waters is not absolute, in the sense that it is without limitations.

This is the case of the safeguards introduced in Article 51(1) of UNCLOS regarding traditional fishing rights and other activities of neighbouring States in areas included in the archipelagic waters, as well as in Article 47(6) of UNCLOS concerning the protection of the rights and all other legitimate interests traditionally exercised by an adjacent neighbouring State before the drawing of archipelagic baselines.[719]

Also, pursuant to Article 50(2) of UNCLOS, existing submarine cables laid by other States and passing through the archipelagic waters shall be respected. This meaning that, *a contrario*, only new cables are subject to the consent of the relevant archipelagic State.

Another important limitation to the rights of archipelagic States is the recognition of the right of innocent passage through archipelagic waters and the right of archipelagic sea lanes passage, respectively, in Articles 52 and 53 of UNCLOS, which is very much the result of the compromise reached in UNCLOS III.[720]

It should also be referred that similarly to transit passage in straits used for international navigation,[721] archipelagic States shall not hamper or suspend the right of archipelagic sea lanes passage.[722]

718 Caminos/Cogliati-Bantz, p. 168.

719 Article 47(6) of UNCLOS reads: "*If a part of the archipelagic waters of an archipelagic State lies between two parts of an immediately adjacent neighbouring State, existing rights and all other legitimate interests which the latter State has traditionally exercised in such waters and all rights stipulated by agreement between those States shall continue and be respected.*"

720 On archipelagic sea lanes, *see* Robin Warner, "Implementing the archipelagic regime in the International Maritime Organization", in: *Navigational Rights and Freedoms and the New Law of the Sea*, edited by Donald R. Rothwell and Sam Bateman (Martinus Nijhoff Publishers: The Hague, London, Boston, 2000), pp. 170-187; Prescott/Schofield, pp. 178-180; Jayewardene, pp. 158-167. For an analysis of State practice in relation with Part IV of UNCLOS *see* Martin Tsamenyi, Clive Schofield and Ben Milligan, "Navigation through archipelagos: current State practice", in: *Freedom of Seas, Passage Rights and the 1982 Law of the Sea Convention*, edited by Myron H. Nordquist, Tommy T. B. Koh and John Norton Moore (Martinus Nijhoff Publishers: Leiden, Boston, 2009), pp. 424-453; Caminos/Cogliati-Bantz, pp. 181-205, 234-242. Also *see* Munavvar, pp. 37-44, 163-168.

721 Article 44 of UNCLOS.

722 Article 54 of UNCLOS.

Moreover, in archipelagic waters, archipelagic States must comply with all relevant obligations provided in UNCLOS, such as those regarding the protection and preservation of the marine environment,[723] the adoption of measures to prevent, reduce and control pollution of the marine environment,[724] or combating pollution from vessels.[725]

Doubts have been raised if UNCLOS excludes certain matters as a result of the lack of cross-reference in the respective provisions to Part IV, or if these are also applicable to archipelagic States or in archipelagic waters. This is the case, for example, of Article 220 of UNCLOS regarding the possibility of enforcement by coastal States for acts of pollution committed in the exercise of the right of innocent passage and the right of archipelagic sea lanes passage. In this respect, for example, UNCLOS provides in Article 233 the relevant cross-reference for straits used for international navigation.[726] There is also a similar reference regarding the right of hot pursuit in Article 111(1) of UNCLOS.[727]

V. Concluding remarks

The argument has been made that certain provisions of Part IV of UNCLOS may represent customary international law, based on supporting existing State practice.[728] As a result, the archipelagic status of a State would be opposable to all States, including for the purpose of maritime delimitation,

723 Article 192 of UNCLOS.

724 Article 194 of UNCLOS.

725 Article 211 of UNCLOS.

726 Article 233 of UNCLOS reads: "*Nothing in sections 5, 6 and 7 affects the legal regime of straits used for international navigation. However, if a foreign ship other than those referred to in section 10 has committed a violation of the laws and regulations referred to in article 42, paragraph 1(a) and (b), causing or threatening major damage to the marine environment of the straits, the States bordering the straits may take appropriate enforcement measures and if so shall respect mutatis mutandis the provisions of this section.*"

727 Article 111(1) of UNCLOS reads: "*The hot pursuit of a foreign ship may be undertaken when the competent authorities of the coastal State have good reason to believe that the ship has violated the laws and regulations of that State. Such pursuit must be commenced when the foreign ship or one of its boats is within the internal waters, the archipelagic waters, the territorial sea or the contiguous zone of the pursuing State, and may only be continued outside the territorial sea or the contiguous zone if the pursuit has not been interrupted.* (…)."

728 Churchill/Lowe, pp. 129-130

while the qualification of archipelagic waters must safeguard the rights that all States enjoy within these waters, including the right of passage.[729]

Notwithstanding the possible recognition of the international legal customary nature of certain or even of all of the provisions included in Part IV of UNCLOS, a State making an archipelagic claim must proceed with its formalization, which in turn is dependent on the compliance with the requirements provided in the Convention.

Accordingly, a State can only qualify as archipelagic and, as a result, draw archipelagic baselines, if its whole territory corresponds to an archipelago and includes within said baselines all the main islands. It must also comply with the land-water ratio and the length criterion.

Likewise, the drawing of archipelagic baselines must also not depart from the general configuration of the archipelago and not include low-tide elevations, unless lighthouses or similar installations built upon them are permanently above sea level.

Furthermore, the drawing of baselines must also not result in cutting off the territorial sea of another State from the high seas or its EEZ, and the archipelagic States must give due publicity to such archipelagic baselines.

Thus, the relation between the concepts of 'archipelago' and 'archipelagic State' is essential for the qualification of a State as being archipelagic and for the determination of the rights and obligations resulting therefrom, including the right to draw archipelagic baselines.

However, the drawing of archipelagic baselines is necessarily connected with the obligation of archipelagic States bringing national legislation in conformity with Part IV of UNCLOS. The situation could arise where a claiming archipelagic State does not refer to archipelagic straight baselines in its legislation or does not effectively draw such baselines in accordance with the land-water ratio and the length criterion.

It could also occur that the claiming archipelagic State misrepresents in its legislation archipelagic waters for internal waters, and accordingly not

729 E. D. Brown, *The International Law of the Sea, Volume I, Introductory Manual* (Dartmouth: Aldershot, Brookfield USA, Singapore, Sydney: 1994), p. 122. This author considers that, subject to a reservation concerning warships, the conclusion that the rules provided in UNCLOS on passage though the territorial sea and straits may be considered to be part of international customary law, could be made regarding the rules on passage through archipelagic waters.

recognise the right of innocent passage through archipelagic waters and the right of archipelagic sea lanes passage.

This lack of harmonization could potentially result in the incorrect drawing of archipelagic baselines outside of the situations provided in Part IV of UNCLOS and, as a result, not being opposable to other States.

11

MARINE SPATIAL PLANNING ON SOLVING CONFLICTS OF THE USES THE SEA

Maria Augusta Paim

Introduction

The traditional uses of the sea include *inter alia* transport, fishery, leisure and warfare. Over the last decades, technological advances and the demand for marine resources have promoted the development of new uses of the sea, such as aquaculture, exploration of the sea-bed resources (i.e. oil and gas), renewable energy production (i.e. wind-farms, tidal and wave-parks), sand and gravel extraction, installation of pipelines, cables and transmission lines, submarine mining and cultural heritage. As Vicente Marotta Rangel points out: 'with improvements attained from scientific and technological advances, the depths of the once unfathomed oceans are now within man's reach'[730].

Each coastal state compromises its own interests in exploring the sea, electing and prioritizing activities. Nevertheless, a multitude of human activities at sea can result in competition for sea space and conflicts amongst the uses

730 Vicente Marotta Rangel, "The Technological Impact on The Law of The Sea," *Law Technology* 15 (1982): 40.

of the sea, where interferences and incompatibilities arise between them (user-user conflicts)[731]. Additionally, the uses of the sea cause impacts on the marine habitats and on the biodiversity, which can lead to conflicts between the uses of the seas and the environment (user-environment conflicts)[732].

The United Nations Convention on the Law of the Sea ('UNCLOS') imposes some restrictions on sea uses, mainly revolving around states' general obligations to protect the marine environment and the conflicts between traditional uses and the coastal states' natural resources rights. Although the UNCLOS does not provide a clear-cut answer to practical issues relating to the conflicts of the uses of the sea, it gives a hint, in conveying that as problems of ocean space are 'closely interrelated', they should be 'considered as a whole', under a holistic approach.

Marine Spatial Planning ('MSP') is a response to the growing pressures on ocean space. MSP is a public process that aims at promoting the rational uses of the sea and its resources in terms of space, time and more generally, holistically. It allocates human activities at sea and integrates the existing and fragmented regulatory framework of ocean activities to avoid conflicts, pursuing ecological, economic and social objectives.

The purpose of this Chapter is to analyze the MSP's main characteristics, which deem it a consistent process through which conflicts of human activities at sea can be solved.

This Chapter is organized in three parts. The first part briefly reviews the uses of the sea and notes the potential conflicts amongst them and their adverse effects on the marine environment. The second part examines the MSP concept and its methods of allocation of activities at the sea space. Within the second part, UNCLOS' provisions about the conflicts of the uses of the sea are considered, although they refer to international conflicts amongst states and the MSP background examined is more closely related to domestic conflicts that occur in the Exclusive Economic Zone ('EEZ'), an area within the national jurisdiction of the coastal states. The third part comprises a reflection about the strengths of the MSP to address the conflicts of the uses of the sea.

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731 Bibliana Cicin-Sain and Robert W. Knecht, *Integrated Coastal and Ocean Management: Concepts and Practices* (Washington D.C.: Island Press, 1998); 19.

732 Fanny Douvere, "The Importance of Marine Spatial Planning in Advancing Ecosystem-Based Sea Use Management," *Marine Policy* 32, no. 5 (2008): 763.

1. The increasing uses of sea space and competition for space

1.1. The uses of the sea

The sea and its resources are drivers of the global economy.

According to estimates, the world's oceans' assets are worth $24 trillion and the ocean economy in 2010 contributed $2.5 trillion to the annual gross marine product, equivalent to a country's annual gross domestic product holding a position of seventh largest economy in the world[733]. Also, the ocean-based industries provided more than 31 million jobs in 2010, corresponding to approximately 1% of the global work force[734].

Because of the growing economic significance of the oceans, the activities at sea, whether traditional or emerging, are continuously expanding and intensifying.

Navigation is a traditional activity at sea and an invention which is historical in nature. For many centuries ships used in navigation stood alone at sea. The ships were essential for the development of civilization, carrying out the activities of: transportation of people and goods; fishing for feeding the world population; recreation; military security and operations. Initially confined to internal waters and nearby coastal areas, the technological advances in hull and engine materials, communications facilities and submersion techniques have allowed for ships to sail any ocean dimension.

Besides the shipping industry itself including the transportation of people and cargo and the renting of leasing of vessels and containers, navigation

733 Ove Hoegh-Guldberg et al., *Reviving the Ocean Economy: the case for action – 2015* (Geneva: WWF International, 2015), 7, http://www.worldwildlife.org/publications/reviving-the-oceans-economy-the-case-for-action-2015. The estimates include economic sectors that depend on the ocean such as fishing, aquaculture, tourism, coastal and oceanic shipping and adjacent benefits such as carbon sequestration and biotechnology. The estimates excluded outputs that are not generated by the ocean *per se*, such as those from offshore oil and gas or wind energy, and valuable intangibles such as the ocean's role in climate regulation, the production of oxygen, temperature stabilization of our planet, or the spiritual and cultural services provided by the ocean.

734 Organisation for Economic Cooperation and Development – OECD, *The Ocean Economy in 2030* (Paris: OECD Publishing, 2016), 167, http://dx.doi.org/10.1787/9789264251724-en. The ocean-based industries selected for this studies were: industrial capture fisheries, maritime and coastal tourism, industrial fish processing, maritime equipment, industrial marine aquaculture, shipbuilding and repair, offshore oil and gas, port activities, shipping, offshore wind.

is also related to the following economic sectors: (i) ports' operations of storage, loading and unloading activities; (ii) shipbuilding, ship-breaking and repairs of marine structures; and (iii) maritime coastal tourism, including leisure activities, excursions to underwater habitats and the cruise industry.

Navigation has managed to maintain its economic importance to this day. In 2015, world seaborne trade volumes accounted for over 80% of total world merchandise trade, surpassing 10 billion tons in trade volumes[735]. That obviously requires a massive world commercial fleet, which as at January 2016, consisted of 90,917 vessels, with a combined 1.8 billion deadweight tonnage (dwt)[736]. That number of vessels probably suffices to keep international shipping lanes busy.

Fishery is also an ancient activity that encompasses the practices of subsistence, recreation, industry, commerce and farming. The technological improvements in fishing gear, methods and practices have generated impacts on the environment, notably the risks of over-fishing, depletion of fish stocks and habitat destruction. Hence, the need for appropriate regulation and safety measures is currently reflected on the development of the law of the sea.

The production of fish from capture fisheries and aquaculture for human consumption and industrial purposes surpassed 167 million tonnes (mt) by 2014[737]. Globally, the primary sector of capture fisheries and aquaculture accounted for 56.6 million jobs[738] and the total number of fishing vessels in the world is estimated at about 4.6 million[739].

Over the last decades, new uses of the sea have emerged as a result of the rapid technological advances and the growing demand for marine resources. The Truman Proclamation of 1945, under which the United States' President Harry Truman aimed at protecting the USA's domestic oil interest, paved the

735 United Nations Conference on Trade and Development – UNCTAD, *Review of Maritime Transport 2016: The long-term growth prospects for seaborne trade and maritime business* (Geneva: United Nations Publications, 7 Nov 2016), 6, http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=1650.

736 UNCTAD, *Review of Maritime Transport 2016*, 30.

737 Food and Agriculture Organisation of the United Nations - FAO, *The State of World Fisheries and Aquaculture 2016: contributing to food security and nutrition for all* (Rome: FAO, 2016), 4, *www.fao.org/3/a-i5555e.pdf.*

738 FAO, *The State of World Fisheries and Aquaculture 2016*, 5. The total of jobs in the fisheries sector comprehends 36% of the workers engaged full-time, 23% part-time and the remainder were either occasional fishers or unspecified status.

739 FAO, *The State of World Fisheries and Aquaculture 2016*, 5.

way for law of the sea recognition of the jurisdiction of the coastal states over all national resources on the continental shelf. Since then, the offshore oil and gas industry has assumed a forefront position in the exploration of mineral resources at sea, including the operations of exploration and production.

It is estimated that approximately 32% of global oil and gas activities were offshore in 2010[740], the majority of worldwide oil production coming from shallow-water production accounting for 93% of total output, compared to 7% for deep-water production[741]. In 2010, around 270 floating oil and gas platforms[742] and more than 9,000 fixed offshore platforms were operating, mainly concentrated in the largest offshore oil and gas basins located at the North Sea, the Mediterranean Sea, the Arab-Persian Gulf, West and East Africa, North and South America, India, the North and South China Sea and West Australia[743]. The offshore oil industry often requires support crafts such as offloading vessels, supply vessels, vessels that load pipes, flotels, seismic research vessels, crane barges, dredgers, anchors, cables, pipelines, helicopters. This means that offshore oil industry operations require significant portions of the sea space.

As per the activities of sea-bed mining, the polymetallic nodules, also called manganese nodules, were one of the first mineral resources found on the sea-bed. Although not yet subject to commercial extraction, they could be utilized in the construction of metal alloys. Their historical importance stems from the scientific discovery of their existence and accessibility by deep-sea mining, which prompted the ambassador of Malta to the United Nations Arvid Pardo and inspired the speech in 1967, calling for the recognition of the Area and the limits of national jurisdiction over seas and its resources as common heritage of mankind. The search for other minerals of economic value and restricted land-based sources such as gold, silver, diamond, tin, copper, zinc, limestone, sand and gravel, should lead states to strengthen seabed mining in the future.

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740 OECD, *The Ocean Economy in 2030*, 174.

741 OECD, *The Ocean Economy in 2030*, 174. Deepwater areas starts from 100 m water depth and the world's deepest underwater oil and gas field is Shell Oil's "*Stones*" field in the Gulf of Mexico at around 2,900 m water depth).

742 Lloyds Register Marine, *Global marine trends 2030*, (London: Lloyd's Register Global Technology Centre, 2013), 118, http://www.lr.org/en/projects/global-marine-trends-2030.aspx.

743 OECD, *The Ocean Economy in 2030*, 174.

More recently, a very promising trend is the use of the sea space or resources to generate renewable energy. This can be seen in the case of wind-farms, tidal and wave-parks, ocean currents, osmotic energy (salinity gradient) and ocean thermal energy conservation. Unlike fossil fuel energy sources, renewable ocean energy is based on unlimited marine resources such as wind and waves. Under the auspices of the United Nations Framework Convention on Climate Change - UNFCCC and the recent 2016 Paris Agreement, countries are rethinking energy policies to impose costs on higher-carbon fuels, following their commitments to reduce greenhouse gas emissions and hence to meet the climate change program targets. As a result, the use of renewable energy will probably grow significantly, starting with the offshore wind energy sector, which is the most technologically mature of the renewable ocean energy options.

Altogether, installations and artificial islands are invading the seas with a wide variety of types and uses. Many of the installations and artificial islands built at sea serve the purposes of the already mentioned uses of the sea, namely fishing stations, energy production units, wind-farms, production oil platforms, port terminals, floating docks and military installations. But they are also useful structures for solving problems of shortage of space or overpopulation on coastal zones or for convenience to accommodate certain activities offshore as is the case with sea-cities, offshore airports, floating factories, boarding stations tourism and residential units.

1.2. The conflicts amongst the uses of the sea space

Although a vast space, covering an estimated 362 million square kilometers[744] of the earth's surface, the sea space is not unlimited. The increasing number of uses of the sea and new fields of activities are already fueling disputes over sea space.

An example of the potential competition for the sea space is already a reality on the North Sea, not only one of the world's most important fishing grounds, comprising almost one quarter of the total world catch, but also abundant in oil, estimated at about 10% of the total world's offshore oil reserves[745].

744 UN/DOALOS (Division of Ocean Affairs and the Law of the Sea), "The First Global Integrated Marine Assessment: Chapter 1. Introduction - Planet, Oceans and Life", *World Ocean Assessment I*, (2016): 6, http://www.un.org/depts/los/global_reporting/WOA_RegProcess.htm

745 Jean-Dominique Wahiche, "Artificial Structures and Traditional Uses of the Sea: the

The conflict between the oil and the fisheries industries, for example in Norway, stems back to 1970s, when the fishermen claimed loss of access to fishing grounds and gear damages from debris left on the seabed due to oil activities in the North Sea[746]. The government's first response was granting a compensation scheme for the loss[747]. Today, the country has a comprehensive oil spill preparedness and response system[748].

Lately, the development of offshore wind farms in the North Sea region has raised concerns in the United Kingdom. Some of the risks envisaged were: (i) the encroaching on areas licensed for oil exploration and production; and (ii) the impairment that the wind turbines could cause to equipment related to the oil industry such as mobile drilling units, helicopters flights, cables and pipelines[749].

Essentially, the claims for the sea space involve, on one side, mobile activities and their right of movement, and on the other side, fixed structures and their right of establishment[750]. Whenever those rights clash, conflicts emerge.

When planning activities on its own sea space, Belgium has prepared a project called Gaufre[751] to propose an optimal space use planning for the Belgian part of the North Sea, based on an analysis of the types of interactions amongst the uses of the sea in a practical way.

The Gaufre Project report acknowledges a two directions global tendency. Accordingly, the fixed activities such as wind energy, cables and pipelines, coastal defense, port structure, aquaculture and land extensions are gaining importance and spatial occupation in comparison to mobile uses of the sea.

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field of conflict," *Marine Policy* 7, no. 1 (1983): 40.

746 Wahiche, "Artificial Structures and Traditional Uses of the Sea," 51-52; Peter Arbo and Pham Thi Thanh Thuy, "Use conflicts in marine ecosystem-base management: The case of oil versus fisheries," *Ocean & Coastal Management* 122 (March 2016), pages 77-86.

747 Wahiche, "Artificial Structures and Traditional Uses of the Sea," 51-52; Peter Arbo and Pham Thi Thanh Thuy, "Use conflicts in marine ecosystem-base management".

748 Wahiche, "Artificial Structures and Traditional Uses of the Sea," 51-52; Peter Arbo and Pham Thi Thanh Thuy, "Use conflicts in marine ecosystem-base management".

749 *The Guardian*, "Oil lobby in legal threat to North Sea wind-farms," October 31st, 2010, https://www.theguardian.com/business/2010/oct/31/oil-industry-wind-farm-threat

750 Wahiche, "Artificial Structures and Traditional Uses of the Sea," 38.

751 Frank Maes et al. *A Flood of Space: towards a spatial structure plan for sustainable management of the North Sea* (Brussels: Belgian Science Policy, 2005).

On the other hand, the mobile uses of the sea, like shipping, fisheries, military uses, water recreation, sand and gravel extraction and dreading activities do not increase their spatial occupation but rather intensify their action in the zones they already occupy[752].

Some of the conclusions of the Gaufre Project report can be used as a starting point for a better understanding of the facts surrounding the incompatibilities amongst activities at sea.

Firstly, shipping routes must be free from obstacles, ensuring the ships' manoeuvres and avoiding risks of traffic and collisions. Activities such as fishing, wind-parks, oil and gas exploration and production, sand and gravel extraction, military practice and the presence of shipwrecks can interfere or obstruct shipping lanes. Ships also need depth space for anchoring, in which case cables and pipelines not buried deep enough into the sea-bed could become incompatible as a concomitant use[753].

Similarly, fishing activities are not compatible with activities that restrict the passage of fishing vessels and access to fishing grounds[754], such as the exploration and production of oil and gas, sand and gravel extraction, military practice, dredging and dumping activities, wind-parks, shipping and recreational traffics[755]. Cables, pipelines and oil platform equipment attached to the seabed can also be damaged by beam trawl fisheries and vice-versa[756]. Additionally, oil platform activities can lead to oil spills on fishing grounds and seismic surveys can cause disturbance to fish populations, giving rise to restrictions placed on installing these structures in areas where fishing is practiced.

With respect to aquaculture, it can be utterly ruined by sea-going or fishing vessels[757].

As per dredging, the excavation of the sea bottom sediments in areas occupied by installations or artificial islands can be unsuitable due to the risk of erosion of the sea floor near the structure piles[758].

752 Maes, "*A Flood of Space*", 120.

753 Maes, "*A Flood of Space*", 78.

754 Wahiche, "Artificial Structures and Traditional Uses of the Sea," 40.

755 Maes, "*A Flood of Space*", 82.

756 Maes, "*A Flood of Space*", 60.

757 Maes, "*A Flood of Space*", 85.

758 Wahiche, "Artificial Structures and Traditional Uses of the Sea," 41.

Regarding wind-parks installations, they are not only at odds with shipping and navigation but they can also hamper tourism and recreational activities because they adversely interfere with the way people experience the coastal landscape due to their physical appearance and noise[759].

Besides, oil platforms represent risks of collision with other mobile activities at sea while performing the activities of exploration or production of oil and gas. As a general rule, to protect installations and artificial islands such as fixed oil platforms, UNCLOS establishes a minimum 500-meter safety zone in the exclusive economic zone[760], which must be observed by vessels passing by their vicinity. Furthermore, the oil platforms have subsurface extensions such as transmission cables, rigs, pipelines, mooring system, anchors, which can be a danger to navigation, and cables and pipelines should not be laid down where an oil field is being explored[761].

1.3. The environmental effects of the uses of the sea

Ultimately, there is no doubt that the expansion of the uses of the sea can damage its environment, inhabitants and resources.

Some uses of the sea represent a higher threat to the environment than others. Once again, taking the report of the Gaufre Project as a starting point, the observations below can be made.

In comparison to other types of transport, such as road, rail or air travel, navigation performed by a container ship, causes less impact on the environment[762]. However, shipping can cause pollution to the sea, mainly because: (i) the ship ballast water may introduce exotic organisms to an area, threatening the local species; (ii) areas of intense shipping traffic can disturb sensitive bird species; (iii) chemicals used in the hulls to prevent algae growth may end up in the sea; and (iv) ships can cause oil spills either due to operational dumping or major accidents[763], which can affect seabirds and coastal fauna and flora[764].

759 Maes, "*A Flood of Space*", 64.

760 UNCLOS, Article 60(4) and (5).

761 Wahiche, "Artificial Structures and Traditional Uses of the Sea," 38-41.

762 Brian Lavery, *Ship: 5,000 years of maritime adventure* (London: Dorling Kindersley and the National Maritime Museum, 2004) 382.

763 Some of the major oil spills involving oil tankers were: Torrey Canyon (1967), Amoco Cadiz (1978), Exxon Valdez (1989), Erika (1999) and Prestige (2002).

764 Maes, "*A Flood of Space*", 79. To avoid such risks in sensitive areas, the International

Regarding the fishing activities, overfishing is a core environmental concern[765]. Trawl nets can remove upper strata of the seabed, affecting fishing stocks and ordinary fishing nets can entangle marine mammals[766].

Dredging and sand and gravel extraction activities can cause negative consequences to the seabed inasmuch as they can destroy eggs located on the seabed. Also, the dumping of dredging material from ports can be highly pollutive[767]. Another activity that can disturb the marine environment of the seabed is the laying of cable and pipelines since they can lead to a dislocation of sediments, turbid sand clouds and perturbation of fauna, benthos and fish[768].

Off the coast, tourism and recreational activities are not completely safe for the environment. They can disturb sensitive bird species and the pollution of the beach can be dangerous to birds and fish[769].

As per wind-parks, they can actually affect the environment positively. That is because they favour the creation of fish habitats in their structures. However, some adversities also occur, such as: (i) disruption of food transport due to the sediments and current changes near the foundations; (ii) risks of accidents with birds (disorientation and collision); and (iii) nuisance for fish and sea mammals caused by the noise and vibration of the structure[770].

The oil and gas operations of exploration and production pose risks related to the drilling and collecting of oil from wells, namely, water pollution is toxic to marine life and habitats as caused by leaks, spills or blowouts of oil[771]. During the exploration phase, seismic surveys for locating oil can

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Maritime Organization ("IMO") has designated special navigational regimes for the areas in need of higher level of protection than others, as for example, the identification of Particularly Sensitive Sea Areas, in which navigation is restricted or prohibited (see IMO Resolution A.928(24), adopted on 1 December 2005, entitled "Revised Guidelines for the designation of special areas and the identification of particular sensitive areas").

765 The international Law and regulation provides a framework to address the problem of overfishing by imposing fishing limitation such as setting the total allowable catch, managing the fishing seasons and the gear use and the closing of certain areas to fishing (e.g. UNCLOS, Articles 61 and 62).

766 Maes, "*A Flood of Space*", 83.

767 Maes, "*A Flood of Space*", 89 and 93.

768 Maes, "*A Flood of Space*", 61.

769 Maes, "*A Flood of Space*", 101.

770 Maes, "*A Flood of Space*", 65.

771 Some of the major oil spills involving oil platforms were: Ekofisk Bravo (1977),

impact fish and marine life. The presence of the oil platform and its undersea cables, pipelines, rigs and equipments cause disturbances to the ocean floor inhabitants. Finally, the oil production platforms can cause air pollution from operating machineries and the burn-off of gases.

2. MSP and the conflicts of the uses of the seas

2.1. Background: UNCLOS and the uses of the seas

The usage of the oceans is the subject-matter of legal debates that date back to the beginning of the 17th Century. In 1609, Hugo Grotius published 'Mare Liberum' to introduce his theory of freedom of navigation on the high seas, as common by nature. That means the high seas could not be possessed nor be subject to exclusive rights and jurisdiction by states. This theory has served the interests of naval power nations, to explore the high seas for trade. At that time, the high seas comprised the vast area beyond the limits of territorial sea, which did not have a uniform measure but included the 3 nautical miles criterion as diffused from the 1930 The Hague Codification[772].

Currently under UNCLOS, the high seas begin after each state's 200 nautical miles (from the baselines of the territorial sea) ends, inclusive of a territorial sea of 12 nautical miles in length, reducing the high seas spaces considerably. Technological progress has broadened the freedoms comprised in the freedom of the high seas to include not only the freedom of navigation and fishing but also of: overflight, laying submarine cables and pipelines, constructing installations and artificial islands and conducting scientific research[773].

UNCLOS governs all the uses of the sea, referring to navigation, fishing, oil exploration, deep-sea mining, marine scientific research, marine archeology, overflight, oceanography, telecommunication, installations and artificial islands. It also establishes the legal regime in each of the sea zones with coastal and third states' rights and obligations.

In general, UNCLOS designates the coastal state as the authority for setting priorities amongst the activities at the sea spaces and the resources under its jurisdiction, regarding its own needs and interests. That means the coastal

IXTOC1 (1979), Piper Alpha (1988) and Deepwater Horizon (2010).

772 Marotta Rangel, "Technological Impact," 44-45.

773 Marotta Rangel, "Technological Impact," 47. See UNCLOS, Articles 87(1), a-f; and 90.

state has the last word about priorities in cases of disputes between two different activities at the same area of the sea. But there are some rules regarding the interaction of activities at sea, specially counterpoising the interests of the coastal states from third ones.

Under the legal regime of the EEZ the coastal state has sovereign rights over its natural resources living or non-living, and the economic activities for the economic exploitation and exploration of the zone, such as production energy from the water, currents, winds, and the exclusive right to build artificial islands and installations[774]. In the EEZ all states have the freedom of navigation, overflight, laying of cables and pipelines, including other international lawful uses related to those freedoms[775]. While exercising those freedoms, both coastal and others states are under the due regard to reciprocal rights and duties, and while the coastal state shall act in a manner compatible with UNCLOS, the others states shall comply with the laws and regulations adopted by the coastal state in accordance with the UNCLOS provisions and other rules of international law[776].

On the continental shelf, where the oil and gas reserves and sedentary fish are located, the coastal states have exclusive rights over their natural resources, including the rights to construct and authorize the use of artificial islands or installations and structures used for economic purposes and to authorize drilling[777]. The exercise of such rights does not affect the superjacent waters or the superjacent EEZ- in the case that the continental shelf does not overlap with the EEZ- or the superjacent high seas, in the case that the continental shelf extends beyond 200 nautical miles[778]. Moreover, these coastal states' exercise of rights must not infringe or result in any unjustifiable interference with navigation and fishing on the EEZ superjacent to the continental shelf[779].

Accordingly, activities that take place on the EEZ and on the continental shelf present equal value in the eyes of the law and the election of priorities depends on each coastal state's regards in conjunction with other states' rights and freedoms. Particularly in case of artificial islands and installations and their safety zones, they shall not be established where they will interfere

774 UNCLOS, Article 56(1) and 60(1)

775 UNCLOS, Article 58(1).

776 UNCLOS, Articles 56(2) and 58(3).

777 UNCLOS, Articles 77, 60, 80 and 81.

778 UNCLOS, Article 78(1).

779 UNCLOS, Article 78(2).

with recognized international sea lanes navigation[780]. It has been argued that this provision gives priority to navigation in essential sea lanes over the construction of installations and artificial islands, like fixed oil platforms and wind-parks[781].

In summary, UNCLOS is clear about the rights of coastal states in its EEZ and continental shelf and the protection of the freedom of navigation and other freedoms in some parts of the sea, but there is not a comprehensive legal framework to solve conflicts between the different uses of the sea[782].

2.2. MSP Overview

At the national level, the state's historical practice in the management of the sea space is the sector-based approach in which the activities at sea are regulated according to rules applicable to each sector separately, without considering the full interaction amongst present and future uses from other sectors. Gradually, the growing pressures on ocean space and resources have forced states to create strategic policy frameworks for better ocean management.

MSP is a response to the increasing uses of the sea and the demand for sea space[783], alongside concerns that those uses should be sustainable uses. Somehow, MSP has extended the Integrated Coastal Zone Management ('ICZM') further to the EEZ limits[784].

More specifically, MSP is a public process in which the coastal states effectively plan the occupation of their sea space to allocate uses of the sea, taking into account ecological, economic and social objectives, in order to reduce or to avoid conflicts. According to the UNESCO Intergovernmental Oceanographic Commission, MSP is:

"[a] public processing of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological,

780 UNCLOS, Article 60(7), 80 and 147(2)(a) (b).

781 See Hossein Esmaeili, *The Legal Regime of Offshore Oil Rigs in International Law* (Aldershot: Dartmouth Ashgate, 2001); 238; and Wahiche, "Artificial Structures and Traditional Uses of the Sea," 39.

782 Esmaeili, *The Legal Regime of Offshore Oil Rigs*, 249.

783 Fanny Douvere, "Marine Spatial Planning: Concepts, Current Practice and Linkages to other Management Approaches" (Ph.D. thesis in Political Sciences, University of Gent, 2010), 2.

784 OECD, *The Ocean Economy in 2030*, 226.

economic, and social objectives that usually have been specified through a political process. Characteristics of marine spatial planning include ecosystem-based, area-based, integrated, strategic and participatory.

Marine spatial planning is not an end in itself, but a practical way to create and establish a more rational use of marine space and the interaction between its uses, to balance demands for development with the need to protect the environment, and to achieve social and economic objectives in an open and planned way."[785]

In other words, MSP is a process used: (i) to identify and analyze (i.1) the actual and potential uses of the sea and their interactions, incompatibilities and cumulative effects; (i.2) the most appropriate areas for each one of the uses of the sea; (i.3) any eventual prohibitions or restrictions of the uses of the sea; and (ii) to establish and implement, with the participation of stakeholders a long-term plan of all the uses of the sea instead of adopting a fragmentary view of each use of the sea separately and the marine environment, in space and time, to promote sustainable development.

One of the main characteristics of the MSP is to implement ecosystem-based management, defined by the Scientific Consensus Statement on Marine Ecosystem Based Management as:

"[a]n integrated approach to management that considers entire ecosystems, including humans. The goal of ecosystem-based management is to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services humans want and need. Ecosystem-based management differs from current approaches that usually focus on a single species, sector, activity or concern; it considers the cumulative impacts of different sectors."[786]

As the Report of the United Nations Secretary-General Oceans and the Law of the Sea states:

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785 UNESCO Intergovernmental Oceanographic Commission, "Marine Spatial Planning", last accessed January 31st, 2017, http://msp.ioc-unesco.org/about/marine-spatial-planning/

786 Karen L. McLeod, Jane Lubchenco, Stephen R. Palumbi and Andrew A. Rosenberg *Scientific Consensus Statement on Marine Ecosystem-Based Management: prepared by scientists and policy experts to provide information about coasts and oceans to U.S. policy-makers* (Signed by 221 academic scientists and policy experts with relevant expertise and published by the Communication Partnership for Science and the Sea, 2005), http://compassonline.org/?q=EBM.

"[t]he distinguishing feature of the ecosystem approach is that it is integrated and holistic, taking account of all the components of an ecosystem, both physical and biological, of their interaction and all activities that could affect them"[787].

The ecosystem-based approach is place-based or area-based, because 'ecosystems are places'[788] in which there is an interaction of plants, animals, microorganisms, people and the physical environment. Applying the ecosystem-based approach to the MSP ensures that the allocation of economic activities at sea respects the biological, physical and geographical features of each place, aiming at maintaining the ecosystem in a healthy, productive and resilient condition, so that it can provide for the human needs of marine goods and services[789].

MSP is neither specifically nor exclusively the subject-matter of any particular International Convention. However, the MSP foundation is the ocean governance principle as stated in UNCLOS' preamble '[c]onscious that the problems of ocean space are closely interrelated and need to be considered as a whole'. That is because MSP deals- in an integrated and coordinated manner- with 'the closely interrelated' 'problems of ocean space', such as conflicts over the uses of marine space, the influence the uses of the sea have in degrading the environment and the decline in ocean resources.

MSP also close links to Agenda 21 'Programme of Action for Sustainable Development', resulting from the 1992 United Nations Conference on Environment and Development. Of major importance for MSP is item 17.5. of Agenda 21, according to which the coastal states commit themselves to integrated management and sustainable development of coastal areas under their jurisdiction through considering the uses of the seas and its effects. The contents of the mentioned provision is the essence of MSP, as seen in the listed objectives: (i) to 'provide for an integrated policy and decision-making process, including all involved sectors, to promote compatibility and

787 UN. Secretary-General, "Oceans and the Law of the Sea" (New York, Report N. A/61/639, March 9th, 2006) 38, para. 136.

788 Larry Crowder and Elliot Norse, E. Essential ecological insight for marine ecosystem-based management and marine spatial planning, *Marine Policy* 32, no. 5 (2008): 772

789 Charles Ehler and Fanny Douvere, "Marine Spatial Planning: a step-by-step approach toward ecosystem-based management. Intergovernmental Oceanographic Commission and Man and the Biosphere Programme", *IOC Manual and Guides* no. 53, IOCAM Dossier no. 6. (Paris: UNESCO, 2009); 24.

a balance of uses'; (ii) to 'identify existing and projected uses of coastal areas and their interactions' and (iii) to consider the effects of the uses of the sea in the marine environment through the application of the preventive and precautionary approach in the impact assessment of major projects and the development and application of methods that reflect changes in value resulting from uses of marine areas.

Subsequently, the Plan of Implementation of the 2002 United Nations World Summit on Sustainable Development - Rio+10 – WSSD specifically addressed the promotion of resource allocation amongst competing uses to balance human needs with the preservation and restoration of ecosystems.

MSP has a wider and different scope than Marine Protected Areas ('MPA'). Both MSP and MPA share common aspects such as promoting environmental conservation and adopting the ecosystem-based approach. However, whereas reserved areas in MPA serve the main purpose of nature conservation, in MSP all uses of the sea and zonings, including MPAs, are jointly considered, not only to protect and conserve the marine environment but also to promote a rational and integrated multiple-use of the ocean space and of its resources.

In comparing MSP and MPA, Charles Ehler concludes that identifying a network of MPAs early in the MSP process is an important output of MSP and that 'MPAs are more effectively planned and managed in the context of MSP'[790],

Many countries have already adopted MSP. The first implementation of MSP was in Australia, in 1975, with the creation of the Great Barrier Reef Marine Park. In recent times, many European Countries, based on their own initiative or on the European legislation and policy[791], have assigned and

790 Charles Ehler, "Perspective: 13 myths of Marine Spatial Planning," Marine Ecosystems and Management 5, no. 5 (April-May 2012): 6. It is worth mentioning a study about how MPAs management can be more effective in the context of MSP due to the MSP's monitoring and periodic amendments in adapting changing conditions (See Tundi Agardy, Giuseppe Notarbartolo di Sciara and Patrick Christie, "Mind the gap: Addressing the shortcomings of marine protected areas through large scale marine spatial planning" *Marine Policy* 35, no. 2 (2011) 226.

791 On 23 July 2014, the European Union ('EU') Parliament and the Council of the European Union issued the Directive on Marine Spatial Planning n. 2014/89/EU ('MSP EU Directive'), incorporating a MSP framework in detail. Previously, some EU documents have recognized the importance of the MSP and have delineated its seminal contours upon consultation of diverse members and sectors of society, such as the Blue Paper – An Integrated Maritime Policy for the European Union (October, 2007), the

implemented MSP. To some extent, the USA, Canada, Norway, China and New Zealand have also started to organize the uses of the sea.

2.3. MSP process in detail

MSP processes and practices can differ significantly, but the literature indicates common aspects and phases such as: (i) planning and analysis; (ii) implementation; and (iii) monitoring and evaluation[792].

The MSP process starts with the planning and analysis phase in which the collection of data, the definition of objectives and production of maps occurs. The collection of data includes the ocean's physical, geological, chemical and biological features and the human activities at sea, through an inventory of all the existing and foreseen uses of the sea[793]. Not only is each particular use of the sea considered in turn, but the interaction of all the uses amongst themselves, the interaction of the uses with the environment, the current and potential conflicts, and the test results of different spatial allocations are analysed[794].

As the ocean is not a uniform space and the oceans' resources are not equally distributed some areas are more relevant than others economically (*i.e.* some areas enjoy an abundance of certain marine resources as compared to others, hence they are a more suitable place for certain activities) and ecologically (*i.e.* some areas can have a more sensitive and fragile habitats and species than others, hence some activities may be restricted in such areas and not others)[795].

Marine Strategy Framework Directive (June, 2008) and the Roadmap for Maritime Spatial Planning (November, 2008). According to Articles 4(1) and 15 of the MPS EU Directive, each coastal Member State, except land-locked, will be required to design its own individual MSP by 2021, pursuant to their own economic, environmental, social and overall needs and objectives, and also to the minimum requirements from Article 6(2) of the Directive. Belgium, Germany, The Netherlands, England and Scotland have already implemented MSP in their sea area and countries like Portugal, Italy, Spain, Poland have MSP itself or similar initiatives under implementation, preparation or discussion. Article 11 of the MSP EU Directive also mentions trans-boundary cooperation between Member States in European Regional Seas such as the Baltic Sea, the North Sea, the Mediterranean Sea and the Black Sea.

792 Douvere, "The Importance of Marine Spatial Planning," 766.

793 Morgan Gopnik, "Integrated Marine Spatial Planning in U.S. Waters: The Path Forward". *Marine Conservation Initiative of the Gordon and Betty Moore Foundation* (2008): 47.

794 Morgan Gopnik, "Integrated Marine Spatial Planning in U.S. Waters," 47.

795 Ehler and Douvere, "Marine Spatial Planning," 20.

As an example of site-specific activities, which must satisfy appropriate conditions and definite characteristics, one can mention the following: (i) oil and gas reserves whose economic exploration is feasible are located in specific areas; (ii) fishing grounds congregate fishes in particular fishing zones, often areas with notable marine biological diversity as well; and (iii) not all areas of the sea are suitable for the economic production of offshore wind energy, which largely depends on the constant flow of winds at a specific speed. Therefore, being a site-specific activity could occasionally determine the allocation of uses of the sea in certain areas.

The planning is an integration of goals and objectives and a setting of priorities, addressing the problems and conflicts identified[796]. It is an attempt to optimize the use of space and to achieve harmonies between different objectives and interests[797]. Ideally, the plan must address conflicts in an effective way, which means to establish priorities, legislation, policy, clear objectives, strong principles and guidance, and stakeholder engagement[798].

When a conflict is perceived, some modeling tools could be used to create scenarios for the reduction or mitigation of the conflicts and the optimization of spatial allocation to accomplish users' demands and socio-economic and environmental goals and objectives[799].

A distinction should be made between goals and objectives. While the goals are broad, abstract and general intentions, the objectives are narrow, concrete and precise measures[800]. For example, MSP common goals are: (i) to conserve and protect marine resources and ecologically valuable areas; (ii) to reduce and resolve the conflicts amongst current and future activities in the sea and between such activities and the environment; and (iii) to ensure the sustainability of economic uses of marine space[801]. On the other hand, the MSP objectives related to such MSP goals would be: (i) to establish a deadline to implement MPAs; (ii) to reserve a specific site to be exclusively used for certain activity; and (iii) to ensure a certain global percentage of the

796 Paul Gilliland and Dan Laffoley, "Key elements and steps in the process of developing ecosystem-based marine spatial planning," *Marine Policy* 32, no. 5 (2008): 792-793.

797 Paul Gilliland and Dan Laffoley, "Key elements and steps," 792.

798 Paul Gilliland and Dan Laffoley, "Key elements and steps," 792-793.

799 Artur O. Tuda, Tim F. Stevens, Lynda D. Rodwell, "Resolving coastal conflicts using marine spatial planning," *Journal of Environmental Management* 133 (2014): 63.

800 Ehler and Douvere, "Marine Spatial Planning," 41.

801 Ehler and Douvere, "Marine Spatial Planning," 41.

sea to produce energy needs from offshore sources[802].

The map simply consists of a graphic representation and written basic terms of all the space-linked data[803], not only delimitating zones for each of the uses of the sea and environmental protection, but also providing 'planning tools' such as strategies, spatial assessment, management measures of compensation and mitigation, 'actions plans' for specific areas and different kinds of allocations[804].

In the implementation phase, the MSP takes place in the sea space in a limited timeframe and involves the execution of programmed works and investments[805]. To achieve the MSP objectives, enforcement and management measures of the plan must occur.

For a successful MSP, the plan performance must be monitored and evaluated periodically, analysing the effectiveness of the plan. The monitoring and evaluation phase allows for the employment of eventual changes and adaptations regarding the results and outcomes of each spatial and temporal measure implemented, and the process is continuously re-started[806].

3. MSP strengths to deal with the conflicts of the uses of the sea

3.1. MSP and related instruments

Even if indirectly, some instruments provide *ad hoc* acknowledgment of conflicts of the uses of the sea as means of anticipating and avoiding adverse impacts amongst the uses of the sea and on the environment. For instance, Strategic Environmental Assessment ('SEA'), Environmental Impact Assessment ('EIA') and sectoral legislation, as applied to use permits can all, to a certain extent, deal with the interface between two or more uses of the sea amongst sectors or the relationship between certain activities and the environment. Nevertheless, MSP is probably the broader and most complete amongst all the available instruments to address such conflicts.

As seen above, the uses of the sea have traditionally been regulated under the sector-based approach. Each individual sector follows specific legislation,

802 Ehler and Douvere, "Marine Spatial Planning," 41.

803 Gopnik, "Integrated Marine Spatial Planning in U.S. Waters" 48.

804 Gilliland and Laffoley, "Key elements and steps," 792.

805 Douvere, "The Importance of Marine Spatial Planning," 766.

806 Douvere, "The Importance of Marine Spatial Planning," 766.

rules and requirements to allocate the activities at sea upon the issuing of licenses and permits, taking into account the particularities and regulatory sea-related aspects of the activity. Even if the sector-based approach might, on occasion, indirectly address certain conflicts for the uses of the sea space it is not like the MSP, which possesses the appropriate means-oriented values and strategy tailored for that purpose. That means the sectoral approach alone is unable to evaluate the interactions of such a multitude of uses of the sea, from various different sectors, as the MSP does.

It is worth mentioning that the MSP does not replace the sectoral regulations, policies and legislations of the single-sector management and their agencies and authorities. The cooperation and coordination of the single-sector entities is essential for the MSP plan to be implemented in a way that the sectoral management continues 'but with a comprehensive vision of the future upon which to base incremental, single-sector decision-making'[807].

Furthermore, the assessment of environmental impacts of activities at sea unquestionably appraises the user-environment types of conflicts of the sea. Already a consolidated process pursuant to Principle 17 of UNCED Rio Declaration[808], the EIA is recognized as 'a practice, which in recent years gained so much acceptance among States' in that it may be considered a requirement under international law 'where there is a risk that the proposed industrial activity may have a significant adverse impact … on a shared resource'[809]. Moreover, for the assessment of the environmental impacts of programmes, plans and policies ('PPPs') the SEA expands 'the scale of operation from the EIA of projects to a more strategic assessment'[810], providing, at an early stage, the alternatives less harmful for the environment for a whole sector or delimited geographic area.

Both the EIA and the SEA can be part of the MSP practice. SEA can ascertain sustainable parameters on a general long-term basis of some of the sea regions or a specific industry, while the EIA- although with a limited focus and a smaller scale -provides greater details and accuracy about the range

807 Ehler, "Perspective: 13 myths of Marine Spatial Planning" 6.

808 'Principle 17: Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.'

809 *Pulp Mills on the River Uruguay (Argentina v. Uruguay)* (Provisional Measures, Order of 13 July 2006, I.C.J. Reports 2006) 113.

810 John Glasson, Riki Therivel and Andrew Chadwick, *Introduction to Environmental Impact Assessment* (London: Routledge, 4th ed. 2012): p. 21.

of environmental impacts assessed[811]. However, MSP goes beyond the EIA and the SEA, with the actual implementation of the plan and management measures considering the optimal allocation of activities at sea.

3.2. MSP's contribution for achieving sustainable development at sea

As part of the United Nations 2030 Agenda for Sustainable Development that came into effect in January 2016, the Sustainable Development Goal ('SDG') 14 is dedicated to 'Conserve and sustainably use the oceans, seas and marine resources'.

The SDG 14 targets create a framework to sustainably manage and protect marine and coastal ecosystems, enhancing conservation and sustainable use of ocean-based resources. The need for an integrated view of the oceans and the application of the ecosystem-based approach, two of the core elements of MSP, permeates some of the SDG 14 targets.

For instance, the SDG 14.2. aspires, by 2020, for the sustainable management and protection of marine and coastal ecosystems to avoid significant adverse impacts, by strengthening their resilience, and taking action for their restoration in order to achieve healthy and productive oceans. As per the SDG 14.7, it aspires that by 2030 Small Islands developing States and least developed countries shall increase the economic benefits from the sustainable use of marine resources, 'including through sustainable management of fisheries, aquaculture and tourism'.

Other goals related to the reduction of marine pollution (SDG 14.1), MPAs (SDG 14.5), measures against overfishing, illegal, unreported and unregulated fishing (SDG 14.4 and 14.6), and overall the social, ecologic and economic aspects of the ocean management of the SDG 14, can also take from and contribute to the MSP objectives and goals.

The specific SDG strategies can benefit from the MSP, which provides enabling conditions for the sustainable development at sea while reconciling concrete ecological, social and economic interests within a specific marine area[812]. As the International Court of Justice ('ICJ') has recognized in

811 Norman Lee and Fiona Walsh "Strategic environmental assessment: an overview," *Project Appraisal* 7, no. 3 (1992): 134.

812 Niko Soininen, "Planning the Marine Area Spatially – A Reconciliation of Competing Interests," *International Environmental Law – making and Diplomacy Review 2012* (Joensuu, University of Eastern Finland, 2013) 89.

Gabčíkovo–Nagymaros[813] and *Pulp Mills*[814], of the essence of the sustainable development concept is the need to reconcile economic development with protection of the environment.

Precisely, some of the MSP contributions for sustainable development are: (i) ecological: identification of areas of ecological and biological importance, incorporation of environmental objectives into marine space management, allocation of space for biodiversity and nature conservation, inclusion of MPAs on the planning and reduction of cumulative impacts of the uses of the sea on marine ecosystems; (iii.2) economic: increased certainty for the private sector investments, identification of compatible uses for the same area, reduction of conflicts of incompatible uses of the sea, streamlined permitting process and efficient uses of sea resources and space; and (iii.3) social: open opportunities for community and citizen participation, identification of the impacts of the allocation of uses of the sea space on onshore communities and economies, protection of cultural heritage and preservation of values related to the ocean uses[815].

Therefore, the MSP contributes to deliver sustainable development at sea through the balancing and reconciling of interests, while it manages the competing and conflicting claims upon the sea space.

Conclusion

813 "Throughout the ages, mankind has, for economic and other reasons, constantly interfered with nature. In the past, this was often done without consideration of the effects upon the environment. Owing to new scientific insights and to a growing awareness of the risks for mankind . . . new norms and standards have been developed, set forth in a great number of instruments during the last two decades. Such new norms have to be taken into consideration, and such new standards given proper weight, not only when states contemplate new activities but also when continuing with activities begun in the past. This need to reconcile economic development with protection of the environment is aptly expressed in the concept of sustainable development." *Gabčíkovo–Nagymaros Project* (Hungary/Slovakia), ICJ Reports (1997): 78 para. 140.

814 "The Court whishes to add that such utilization could not be considered to be equitable or reasonable if the interests of the other riparian State in the shared resource and the environmental protection of the latter were not taken into account. Consequently, it is the opinion of the Court that Article 7 embodies this utilization of a shared resource and the balance between economic development and environment protection that is the essence of sustainable development". *Case Concerning Pulp Mills on the River Uruguay*, ICJ, Judgment, 20 April 2010, available at: www.icj-cij. org/docket/files/135/15877.pdf.

815 UNESCO Intergovernmental Oceanographic Commission, "MSP Facts", last accessed January 31st, 2017, http://msp.ioc-unesco.org/about/msp-facts/.

It is not possible to conceive of a future without a sea populated by human activities, occupying its spaces and exploring its resources. As a global tendency encouraged by economic opportunities, the traditional uses of the sea intensify and new uses of the sea emerge, causing pressures on the marine environment. Inevitably, there is the need to understand, frame and solve current and future spatial conflicts at the sea.

It is not the purpose of this Chapter to analyze if MSP solves conflicts of the use of the sea, effectively, based on the experiences already occurring. It is probably an unrealistic perception that MSP would achieve all its objectives and goals, simultaneously[816].

Nevertheless, the MSP is a valuable process and mechanism for addressing the purposes of solving conflicts of the uses of the sea and for aiming to solve them, notably through the combination of its characteristics of being encompassing, adaptive, multi-purpose, forward-looking, aligned with ocean governance, ecosystem-based and promoter of sustainable development at sea. It is also meritorious that MSP focuses on creating synergies and integrations in the fields of the law of the sea, subject to the highly fragmented governance exercised by various international, regional and national agencies and authorities through traditional sectoral regulatory and legal frameworks.

816 Niko Soininen, "Planning the Marine Area Spatially," 91.

12

THE IMPACT OF THE LAW OF THE SEA ON THE DEVELOPMENT OF SPACE LAW: FROM *LEGE FERENDA* TO *LEGE LATA:* AN ODYSSEY TO THE UNKNOWN

Maria Helena Fonseca de Souza Rolim

I. Introduction

The oceans comprise approximately 71 per cent of the Earth's surface and the total volume of the marine environment provides about 300 times more space for life than provided by land and fresh water combined. The so –called planet Earth is a vast expanse of blue water. The oceans are a key element for the existence of life on Earth. The atmosphere we breathe, and which controls the weather and climate, is intimately connected to the oceans. This water mass is an enormous empty space with a colossal influence for mankind. Certainly, it is crucial to keep a constant surveillance on its health and changes. Temperature, currents, salinity, and pollution are some examples of features that have direct effects on human daily life and the only possible way to keep constant measurements on these and others parameters is using satellites for remote sensing.

Sea and outer space feature strong interactions as media, although they are obviously different. Satellites are the modern day main tool for precise navigation and, in this case, there are dozens of platforms around the Earth sending reference signals for ships to keep their tracks. If not sufficient, to perceive the huge importance of space activities for sea environment monitoring, it could be highlighted the significance for human search using these assets in case of accidents and tragedies.

October 4, 1957, the Soviet Union successfully launched Sputnik I, the world's first artificial satellite.[817] While small and limited in function, the Earth's first artificial satellite ushered in an age of exploration not only of space, but of the Earth's land masses and oceans as well.[818] If we are to protect, preserve, and conserve the oceans for our life and health and for the benefit of future generations, we must use the view from space and look as closely as possible at the dynamic forces that stir the colors of the ocean.[819] Furthermore, space as an investment in economic growth become paramount.[820]

817 http://oceanexplorer.noaa.gov/technology/tools/satellites/satellites.html

818 "Satellites that detect and observe different characteristics and features of the Earth's atmosphere, lands, and oceans are often referred to as environmental satellites. Most environmental satellites have one of two types of orbits: geosynchronous or sun-synchronous. Geo-synchronous satellites orbit the Earth at a speed matching the Earth's rotation. This allows them to hover continuously over one position on the surface. Most satellites used for communications, television, etc., maintain a geo-synchronous orbit. Geo-synchronous environmental satellites are used primarily for weather forecasting. These satellites orbit the earth about 22,000 mi directly over the equator, allowing them to continuously observe one side of the Earth. They are used to monitor the development of major storms, such as hurricanes, nor'easters, and tornadoes. The first of NOAA's geo-stationary operational environmental satellites (GOES) was launched in 1975. Sun-synchronous satellites pass over a point on the Earth at the same time each day. The sun-synchronous environmental satellites are "polar orbiting," meaning that they orbit the Earth from north to south, passing over the North and South Poles during each orbit. POES (Polar Operational Environmental Satellites) maintain an orbital height of about 500 mi and take about 100 min to complete an orbit. Depending on which sensors the satellite maintains on board, it may view a swath of only a few mi wide to one that is more than 1500 mi wide. Several types of satellites fall into this category, including NOAA's polar-orbiting environmental satellites (POES), Landsat, Sea WIFS, IKONOS, and others. Sensors such as Landsat-7 and IKONOS provide detailed information on local areas. Landsat-7 is part of the Landsat program, one of the longest existing environmental satellite programs". *Ibid*.

819 http://science.nasa.gov/earth-science/oceanography/:

820 'From the beginning of the Appolo program until funding started to decrease in the late

The technology development has required the law to respond. Indeed, 'law never seeks to regulate technology, but rather aims to place order on the competing human interests that results from that technology'.[821] The impact of new technologies on the evolution of the international law is, particularly, connected with the law of the sea and space law. This issue evokes the pressure of facts on the Law.

II. From the Law of the Sea to Space Law - from extraterritorial to extraterrestrial law

From a holistic perspective, this article provides in short an overview regarding the law of the sea international legal framework and the impact of such *corpus juris* on the structure and teleology of space law. From international customary law, the essential, if not exclusive, source at the beginning of the law of the sea[822] to the 1982 Convention on the Law of the Sea (UNCLOS), the Constitutions for the Ocean,[823] essential analogies for outer space may be noticed.

Certain principles of the international law of outer space appear to be emerging particularly as a consequence of customary practices and unanimously adopted by Resolutions of the General Assembly of the United

1960s, NASA had no pressing need to justify its program from an economic perspective. Falling NASA budgets and very high national visibility greatly increase the need to explain to Congress and the public the usefulness of the space program…Finally, with the end of the Cold War in the late 1980s the space race with the Soviet Union was over, and the pressure to view NASA and space investments from the perspective of a rate of return to the nation form its investments become paramount." Henry R. Hertzfeld, "Space as an Investment in Economic Growth", in Exploring the Unknown, Selected Documents in the History of the U.S. Civil Space Program, Volume III, Using Space, (Washington: edited by John M. Logsdon *et alli*, National Aeronautics and Space Administration, 1998), 385.

821 M. Bourbonniere, *National-Security Law in Outer Space: The Interface of Exploration and Security*, 2005, 70 J Air L. and Comm. 3-62 at 3, quoted by Francis Lyall and Paul B. Larsen, *Space Law A Treatise* (Burlington: Ashgate Publisher, 2009); Gabriel Lafferranderie, "Space Science and Space Law", in Outlook on Space Law Over the Next 30 Years (The Hague; Kluwer Law International, 1997), 107-112.

822 Antonio Cassese, *International Law In A Divided World* (Oxford: Clarendon Press, 1988), 181-3.

823 Statement of Ambassador Tommy T.B. Koch of Singapore, President of the Third United Nations Conference on the Law of the Sea, at the final session of the Conference at Montego Bay, Jamaica, on 11 December 1982.

Nations.[824] Nevertheless, there is an increasing tendency for States to enter into multilateral treaties for the purpose of restating, clarifying, and crystallizing emergent rules of customary law.[825]

The legal regime in space law is increasingly fragmented and inadequate to meet the challenges of the ongoing use of space,[826] similarly to the old law of the sea prior to the UNCLOS. The essential international legal framework for space encompasses five space treaties addressing very general principles adopted since 1967[827] and a series of arms control treaties.[828] The Outer Space Treaty of 1967 (OST) is generally accepted as foundational, adopting

824 *See, inter alia*, Declaration of Legal of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, UNGA Res.1962 (XVIII) of 1963; Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting, UNGA Res. 37/92 of 1982. Resolutions 1721/1961 and 1962/1963 indicate that outer space and celestial bodies are free for use by all states, that national appropriation is barred both for outer space and in respect of celestial bodies, and that space is to be used for peaceful purposes. Lyall notes 'In the arena of space law, it is interesting to see how often the accounts of UN debates and proceedings of COPUOS and its constituent sub-committees are quoted as indicating practice and *opinio iuris*. But how far these accounts are really advocacy and how far reportage is obscure. The fact is that space *materiel* is in flux. Coming to an opinion as to the ambit and application of international custom in relation to space remains difficult,' Lyall et al., *supra* note 5, 42-52.

825 Cassese, *supra* note 6, 183.

826 Nina Tannenwald, *Law Versus Power on the High Frontier: The Case for a Rule- Based Regime for Outer Space*, The Yale Journal of International Law, Vol. 29, 2004, 370.

827 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (hereinafter Outer Space Treaty), adopted on 19 December 1966, opened for signature on 27 January 1967, entered into force on 10 October 1967; Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, adopted on 19 December 1967, opened for signature on 22 April 1968, entered into force on 3 December 1968; Convention on International Liability for Damage Causes by Space Objects (hereinafter Liability Convention), adopted on 29 November 1971, opened for signature on 29 March 1972, entered into force on 1 September 1972; Convention on Registration of Objects Launched into Outer Space adopted on 12 November 1974, opened for signature on 14 January 1975, entered into force on 15 September 1976 and Agreement Governing the activities on the Moon and Other Celestial Bodies (hereinafter Moon Treaty), adopted on 5 December 1979, opened for signature on 18 December, 1979, entered into force on 11 July 1984. *See United Nations Treaties and Principles on Outer Space,* Office for Outer Space Affairs, Vienna, 1996, 1-73.

828 *Inter alia*, Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, August 5, 1963, 14 U.S.T. 1313, 480 U.N.T.S. 43.

in part at least principles of a generality that have passed into customary law.[829] The creation of the legal regime to outer space was framed by the air law,[830] high seas[831] and Antarctica analogies.[832]

III. Principles

The fundamental principles of the law of the sea adopted through analogy in the codification of space law refers, *inter alia*, to peaceful uses of the oceans, freedom of high seas, i.e., non-sovereign parts of maritime territories; freedom of navigation; freedom of scientific investigation, freedom of exploitation; the common heritage of mankind, innocent passage, jurisdiction of the State of registry, international cooperation, transfer of technology, and the entrepreneurial principle of first come, first served. Nevertheless, this article will focus on two central key concepts: freedom of high seas and the common heritage of mankind (CHM). Other principles flow down directly or indirectly from the two fundamental referred concepts.

1. High Seas Analogy

Historically, the high seas analogy had an essential role in shaping the legal regime in outer space.[833] Freedom of the seas is the principle that, outside its territorial waters, a State may not claim sovereignty, except with respect to its own vessels[834] evoking the application of *the extraterritorial law*. From

829 Lyall et al., *supra* note 5, 41.

830 Manfred Lacks, "Freedoms of the Air –The Way to Outer Space, Air and Space Law: *De Lege Ferenda*," Essays in Honour of Henri A. Wassenbergh, (Dordrecht: Martinus Nijhoff Publisher, 1992), 241-5.

831 Tannenwald, *supra* note 10, 374

832 *Ibid.* Scott J. Shackelford, "The Tragedy of the Common Heritage of Mankind", Stanford Environmental Law Journal, 109, 2009, 110 -169.

833 Tannenwald, *supra* note 10, 387-403.

834 Sohn notes 'Freedom of the high seas has been a basic precept of the law of the sea since the seventeenth century. This freedom includes (but not limited to) 1.freedom of navigation; 2. freedom of over flight; freedom of fishing; freedom to lay submarine cable and pipelines; freedom to construct artificial islands, installations and structures; and freedom of scientific research…These freedoms must be exercised by all states with reasonable regard to the interests of other states in their exercise of the freedom of the high seas, and states are bound to refrain from any acts which unreasonably interfere with the use of the high seas by national of other states.' Louis B. Sohn and Kristen

Grotius' theory, the seas cannot constitute property and they are free to all nations and subject to none. In *Mare Liberum*, 1069, Grotius delineated the concept based in part in a widespread perception at the time that the seas had "limitless" resources.[835] The high seas analogy supported consider outer space as a commons, an area open to use by all states for the full range of military purpose accepted under international law. From the legal status of outer space, it seems to be no possible justification for recognizing any extension a State's sovereignty beyond the Earth's atmosphere into outer space. Certainly, it is regarded as free. The freedom of outer space is thus closely analogous to that of the high seas.[836]

The consequence is that a State would at any time launch rockets, artificial satellites and space stations from its own territory, *terra nullius* or the high sea into outer space, according to international law.[837] Remembering that, almost all space technologies from rockery to telecommunications, navigation to observation emerged from activities under military agencies of the United States and the Soviet Union.[838]

The Outer Space Treaty, the Magna Charta of Space, has set the pillars for the exploration and use of outer space, addressing essential principles, *inter alia*, (i) the *extraterrestrial* application of space international law to outer space and celestial bodies; (ii) the common interest of all mankind in the progress of the exploration and use of outer space for *peaceful purpose*;[839] (iii) the exploration and use of outer space for the *benefit of all peoples*;[840] (iv)

Gustafson, *The Law of the Sea* (Minnesota: West Publishing Company, 1984), 228.

835 Tannenwald notes 'Grotius efforts were actually a political tract to defend the Dutch East India Company's right to navigate in the Indian Ocean and other eastern seas over which Spain and Portugal had asserted a commercial monopoly as well political domination. Claims that asserted territorial sovereignty over the seas had increased markedly during the sixteenth and seventh centuries, largely because of the growth in world trade following the discovery, exploration and colonization of new lands. Two hundred years were to pass before Grotius' principle prevailed.', *supra* note 10, 391.

836 Bin Cheng, *Studies in International Space Law* (Oxford: Clarendon Press, 1997), 10.

837 *Ibid*.

838 Marietta Benko and Kai- Uwe Schrol, *Article I of the Outer Space Treaty Reconsidered After 30 Years: "Free Use of Outer Space" vs. "Space Benefits"*, Outlook on Space Law over the Next 30 Years, Essays published for the 30th Anniversary of the Outer Space Treaty, Gabriel Lafferranderie and Daphné Crowther, editors, Kluwer Law International, The Hague, 1997, 68.

839 Preamble.

840 *Ibid*.

outer space, including the moon and other celestial bodies, shall be free for exploration on a bases of *equity* and in accordance with international law;[841] (v) outer space should be *non- appropriable*, i.e., prohibition of appropriation of outer space or celestial bodies;[842] (vi) prohibition to place in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any manner;[843] and (vii) the idea of the 'province of all mankind.'

Actually, the 'province of all mankind' concept is a general principle based on the teleology that all nations have the nonexclusive right to use space, and it has not the same meaning of the 'common heritage principle' which technically applies only to the moon and the sea-bed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction, and its resources.[844] Nevertheless, scholars refer to the declining relevance of the high seas analogy, in particular regarding the false analogy between freedom of the seas and the military use of space,[845] although it has historically played an essential impact on the development of space law.

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841 OST, Article I

842 OST, Article II. De Man argues "The exact meaning of Article II OST has been subject to many controversies, particularly as regards the interpretation of the notion 'national appropriation.' The material scope of the non-appropriation principle as applying to both outer space *sensu stricto* and celestial bodies, however, appears sufficiently clear to withstand scrutiny and has indeed never been challenged explicitly… The main purpose of the non-appropriation principle is to avoid territorial conflicts in outer space so as to guarantee the free exploration and use thereof in accordance with Article I OST." De Man, "The Commercial Exploitation of Outer Space and Celestial Bodies – A Functional Solution to the Natural Resource Challenge, New Perspectives on Space Law", Proceedings of the 53rd IISL IAF Colloquium on The Law of Outer Space (France: Edited by Mark J. Sundahl and V. Gopalakrishnan , 2011), 52-9.

843 OST, Article IV.

844 Tannenwald, *supra* note 10.

845 Tannenwald notes 'Today, advocates of stationing weapons in space regularly invoke freedom of the seas as a rationale for space weapons, implying that the military use of space will recapitulate earlier experiences with navies on the high seas. Moreover, the historical analogy between the high seas and space is flawed; the nature of space, its uses, and its relation to earth are significantly different form the nature and uses of the high seas and their relation to the land. Within the realm of ocean law, the "freedom of the seas" concept is today seen as an increasingly week principle for guiding management of the oceans.' *Ibid.*, 387 -98.

2. The Common Heritage of Mankind Analogy

The concept of the common heritage of mankind emerged under the law of the sea arena when the Maltese Ambassador Arvid Pardo at the 1515th Meeting of the First Committee of the UN on 1 November 1967[846] refers to the establishment of an international legal regime to ensure that the sea-bed beyond national jurisdiction and the ocean floor were exploit solely for peaceful purposes and for the benefit of mankind as a whole.[847] It was adopted by UNCLOS, in 1982.[848] Previously, however, the concept was introduced in the space scenario, in 1970, by A.A. Cocca at the Committee on the Peaceful Uses of Outer Space (COPUOS) meetings.[849] The Moon Treaty (MT), 1979, has the distinction of being the first treaty to adopt the common heritage of mankind principle in international law.[850]

Indeed, the legal regime for the exploitation of the resources of the Moon has been affected by the concept of the 'common heritage of mankind'. The MT applies the concept to the 'moon and its natural resources', in Article 11. Nevertheless, the provisions on the issue postponed the question, providing in paragraphs 5 and 7 that 'an international regime is to be established as soon as the exploitation of the natural resources of the moon is about to become feasible' and one of its main purpose is, *inter alia*, 'an equitable sharing' by all States Parties in the benefits derived from those resources, whereby the interests and needs of the developing countries, as well as the efforts of those countries which have contributed

846 Lyall et al., *supra* note 5, 193.

847 Cassese, *supra* note 6, 380.

848 UNCLOS, Articles 136 -137.

849 Lyall et al., *supra* note 5, 193.

850 'In effect the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) which drafted the moon treaty has stolen a march on the Third United Nations Conference on the Law of the Sea (UNCLOS III) which at the time was still, Laocoon-like, wrestling with the concept. To the hitherto tripartite division in international law of the world into (i) national territory, (ii) *res nullius*, i.e., areas which may be acquired as national territory, and (iii) *res extra commercium*, i.e., areas which by law are not susceptible of national appropriation, there is now a fourth category, (iv) common heritage of mankind, areas which are not only themselves not subject to national appropriation in a territorial sense, but the fruits and resources of which are also deemed to be property of mankind a large. For this reason, however hastily and hence poorly put together, the Moon Treaty deserves the most general attention.' Cheng, *supra* note 20, 357.

either directly or indirectly to the exploration on the moon, shall be given special consideration.'[851]

Moreover, the Moon is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means;[852] Neither the surface nor the subsurface of the Moon, nor any part thereof or natural resources in place, shall become property of any State, international intergovernmental or non-governmental organization, national organization or non-governmental entity or of any natural person[853] and States Parties have the right to exploration and use of the Moon without discrimination of any kind, on the basis of equality and in accordance with international law.[854]

The common heritage of mankind concept constitutes a finding that all nations of the world have rights to Lunar resources.[855] Legal scholars and governments realized the weaknesses of the high seas analogy with regard to the Moon and found the Antarctic analogy, i.e., complete demilitarization more accurate, facilitating agreement on its non- militarization.[856] The current status of outer space, taking into account the analogy with the legal status of Antarctica, evokes common international governance. Regarding appropriation and sovereignty, the legal situation of outer space is much clear than Antarctica. Nevertheless, the rules on military uses of outer space are less ambitious than the addressed in the Antarctic Treaty.[857]

851 'Mention should also be made of the interpretation of the expression 'equitable sharing' insisted upon by the US whereby the choice of 'equitable' instead of 'equal' means that all States need not be put on an equal footing, but better treatment should be reserved to the States actively engaged in exploring or otherwise exploiting outer space. This interpretation, it is plain, may further weaken the concept of common heritage as advocate by developing countries, by watering down one of its basic implications, namely, that the profits of the exploitation of natural resources should primarily accrue to the Third World.' Cassese, *supra* note 6, 390.

852 MT, Article 11.2.

853 MT, Article 11.3.

854 MT, Article 11.4.

855 Utsav Mukherjee, "New Perspectives on Space Law", Proceedings of the 53rd IISL Colloquium On The Law of Outer Space (Prague: IAF ed., 2010), 222-35.

856 'Many of the characteristics of the Antarctic –its remoteness, the difficulty of the physical environment, and the perceived lack of advantage associated with military facilities –also applied to the Moon and other celestial bodies.' Tannenwald, *supra* note 10, 375.

857 Cheng emphasizes 'Article 3 repeats article IV (2) of the 1967 Treaty by providing that the 'moon shall be used by all States Parties exclusively for peaceful purposes', and

The fundamental principles which flow down from the Moon Treaty shall be carried out in accordance with international law to promote (i) international peace, security, co-operation, progress and development; (ii) non-militarization; (iii) non – appropriation; (iv) freedom of scientific investigation; (v) freedom of exploration and use without discrimination; and freedom to establish manned and unmanned stations.[858] However, the legal framework stated at the MT is dim in comparison to the rules addressed in the UNCLOS with respect to the matter.[859]

The juridical framework established in the UNCLOS[860] considers the Area, i.e., the sea-bed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction, and its resources a common heritage of mankind.[861] The Convention excludes national appropriation on the Area,[862] provides for an equitable sharing of resources,[863] peaceful use,[864] the promotion of marine scientific research[865] and the protection of the marine environment.[866] Furthermore, all activities of exploration and exploitation of the Area must be organized, carried out and controlled by the Sea-bed Authority.[867] This regime introduced for the first time a complex and detailed set or regulations

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should have, therefore, the same effect as the latter which, it is submitted, means total non-militarization and the prohibition of all military activities. However, the United States persists in wishing to interpret 'peaceful' as meaning 'non-aggressive' instead of non-military.", *supra* note 20, 367.

858 *Ibid*., 357- 80.

859 Lyall et al., *supra* note 5, 195.

860 UNCLOS, Part XI, Annexes III and IV; 1994 Implementing Agreement relating to the provisions of Part XI of the Convention; Satya N.Nandan, "An Introduction to the 1982 United Nations Convention", in Order for the Oceans at the Turn of the Century (The Hague: Kluwer Law International, 1999), 09; Bernard H.Oxman, "The 1994 Agreement relating to the Implementation of Part XI of the UN Convention on the Law of the Sea," in Order for the Oceans at the Turn of the Century (The Hague; Kluwer Law International, 1999), 6-25.

861 UNCLOS, Article 136.

862 UNCLOS, Article 137.

863 UNCLOS, Article 140. 2.

864 UNCLOS, Article 141.

865 UNCLOS, Article 143.

866 UNCLOS, Article 145.

867 UNCLOS, Article 156- 175.

on the issue at an international level.[868] Although a controversial issue,[869] the notion of common heritage of mankind implies five requirements: (i) a resource shall not be appropriated (i.e., it can be used but not owned); (ii) the use of the commons will be managed by an international authority; (iii) benefits will be actively shared; (iv) the commons will be reserved for peaceful purposes; and (v) reservation will be for the benefit and interest of mankind. The CHM concept constitutes an original and genuine scheme for cooperation and invites revisiting the myth of sovereignty. Coexistence and cooperation is the core of the legal framework for a peaceful use of the oceans and the outer space for the benefit of mankind.

IV. Exploring the unknown

From the ancient use of the oceans, interconnected with the old law of the sea, to the contemporary Space Era, expansion and domination have been the leitmotiv to explore the unknown. The development of international law, in a bi-dimensional spectrum with respect to the law of the sea and in a vertical perspective regarding the outer space, evoked the revision of the myth of sovereignty and had faced fundamental and complexes challenges to transcend old patterns on boundaries delimitation. The legal boundaries of the oceans were finally codified in the new law of the sea encompassing sovereignty, sovereign rights and jurisdiction issues. Nevertheless, defining a State's vertical sovereignty remains unsolved.[870] The Outer Space Treaty does not define space and the Liability Convention does not define the term space object. Furthermore, air law is connected with State sovereignty[871] and space law forbids any form of national appropriation and claims of sovereignty on outer space.[872]

868 Cassese, *supra* note 6, 386.

869 Tonnenwald, *supra* note 10, 411; Scott J. Shackelford, "The Tragedy of The Common Heritage of Mankind", Stanford Environmental Law Journal, Volume 28, 109-69.

870 *See* Dean N. Reihnardt, "The Vertical Limit of State Sovereignty", in Journal of Air Law and Commerce (2007), 66-137; Diederiks-Verschoor, *An Introduction to Space Law* (Deventer: Klwuver Law and Taxation Publishers, 1993); Gbenga Oduntan, "The Never Ending Dispute: Legal Theories on the Spatial Demarcation Boundary Plane between Airspace and Outer Space," in Hertfordshire Law Journal, (Cantebury, 2002), 64-84; Lyall et al., *supra* note 5; Olavo Bittencourt Neto, *Defining the Limits of Outer Space for Regulatory Purpose*, (Dordrecht: Springer International Publishing, 2015).

871 Cheng, *supra* note 20, 31-51; Lyall et al., *supra* note 5, 153- 61.

872 Bittencourt notes 'Therefore, the different standards contributed to the creation of two

From UNCLOS, port and coastal States have varying degrees of jurisdiction over vessel in marine waters. The limits of their jurisdiction depend on whether a vessel is in internal waters, the territorial sea, the contiguous zone, the EEZ or high seas. Indeed, port/coastal States jurisdiction in regard to foreign ships depends on a wide range of interconnected issues, in particular, the nature of the ship, the location where the violation occurs, the intensity of violation (substantial discharge, major discharge and any violation) and the concurrent flag State jurisdiction.

The actions of port/coastal States are based on the principle of sovereignty and, from internal waters to the high seas, such sovereignty declines with direct implications for jurisdiction issues: (i) *Internal waters*: under international law, port/coastal States have full sovereignty in their internal waters and ports and may establish entry conditions for foreign vessels.[873] States are not obligated to seek approval of IMO for stricter anti-pollution measures in their ports or internal waters;[874] (ii) *Territorial sea*: the coastal State may adopt laws and regulations consistent with the UNCLOS. Such provisions, however, shall not hamper the innocent passage of foreign vessel; (iii) *Contiguous Zone*: not all countries claim a contiguous zone, and for most purposes this zone falls into the ambit of the rules for the EEZ. The coastal State has additional specific law enforcement (prevention and punishment) rights, but no legislative jurisdiction, with respect to activities that infringe or may infringe on specified categories of laws that apply in the territorial sea. The coastal State may exercise the control necessary to prevent infringement of sanitary law; and (iv) *Economic Exclusive Zone*: the coastal State has jurisdiction with regard to the protection and preservation of the marine environment and may adopt laws and regulations for the preservation of the biopollution of the marine environment. It has enforcement rights (and responsibilities) for international rules and standards or national laws giving effect to the international rules and standards governing vessel-source marine pollution. However, flag State exercises jurisdiction in the EEZ with respect to vessel-source pollution in regard to ships who fly its flag. Coastal States resist accepting flag State

immiscible legal systems, which arguably succeed each other above the surface of the Earth at a still to be determined altitude." *Supra* note 54; *see* Odunta, *supra* note 54/ 64.

873 A.V. Lowe, "The right of entry into maritime ports in international law", in San Diego Law Review 14 (San Diego,1997), 597-622; R.R. Churchill and A. Lowe, *The Law of the Sea* (Manchester: Juris Publishing, 1999).

874 IMO,BWM/CONF/9, 25 November 2003, 2.

jurisdiction and correlated enforcement problems arise with respect to the EEZ where coastal States has sovereign rights.

Currently, international law imposes even more restrictions on the traditional concept of sovereignty which seems to be the oldest subject in international law. Even Grotius argued that sovereignty was limited by international law.[875] In the lack of treaty law establishing the frontier between air–space and outer space, some publicists refer to the emergence of customary law on the issue. [876] Prospectively, however, the boundary regime for air-space and outer space may eventually be delineated through international agreement at the light of the law of the sea which recognizes a right of innocent passage through territorial waters in tandem with State jurisdiction beyond territorial waters.[877] Considerations on outer space delimitation issues were presented at the UN Committee on the Peaceful Uses of Outer Space (COPUOS) since the beginning of the Space Era.[878] The fundamental theories on the matter encompass the *functionalist* approach versus the *spatialist* approach. Indeed, the debate still remains.

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875 Franz Xaver Perrez, *Cooperative Sovereignty: From Interdependence to Interdependence in the Structure of International Law* (Leiden: Kluwer Law International, 2000), 34-7.

876 Stephen Gorove, *Developments in Space Law: Issues and Policies* (Dordrecht: Martinus Nijhoff Publishers, 1991), 21. Bittencourt notes 'The lack of treaty settling the air/outer space boundary, added to the absence of protests regarding eventual occurrence of space launchings crossing foreign air space, would have provided, according to S.B. Rosenfield, a tacit acceptance of the functionalist approach. Therefore, it has been argued that an international custom favorable to the functionalist approach was crystallized during the last decades, justifying its application in case of disputes.", *supra* note, 54, 37-8. On the other hand, Lyall observes 'Given the proven willingness in history of states to enforce their sovereignty over 'their' air –space, it is surprising to find that there is no formal record of any state objecting to being simply over-flown by the satellite of another state. Some consider it premature to suggest that there is a rule of customary international law that a state may not object to such over-flight since there is no formal evidence that the view of states is that as matter of law no valid objection can be made, but the continuance of state silence on the matter will lead inexorably to a position where any inchoate right to object will dissipate, if it has hot already done so.', *supra* note 5, 161.

877 Lyall et al., *supra* note 5, 153; Bittencourt notes 'It is the delimitation through treaty rule, of the vertical frontier, tempered by passage rights for the launching and reentry of space objects, under regulation that addresses the interests of both the launching State and the territorial State that may be crosses by the flight path.', *supra* note 54, Introduction 1.

878 Lyall et al., *supra* note 5, 163.

The *functionalist* approach, for several reasons,[879] adopting a pragmatic perspective, excluded the necessity of delimitating frontiers between air space and outer space. Accordingly, the delimitation is unnecessary or impossible to be properly accomplished,[880] i.e., there is no scientific basis to claim that the air space has, in fact a natural vertical limit.[881] The legal framework to space activities should consider not the place where they occur, but their nature and purpose.[882] Moreover, space activities would implicate the right of innocent passage for space objects through the air space of other State, accordingly to international law.[883] Legal scholars note that the absence of a clear boundary has not been a problem up to now and argue that the space law treaties adopted a functionalist teleology to avoid the boundary problem.[884] The American delegation at the UNCOPUOS has traditionally endorsed the *functionalist* approach.[885]

On the other hand, the *spatialist* approach is favorable to the delimitation of boundaries between air space and outer space based upon complex scientific criteria: (i) Atmospheric Limit and Aerodynamic Lift;[886] (ii) Lowest Orbital

879 'First, if the astronautic endeavors demanded the incidental passage of a space object through the territory of another State, no matter at which altitude, no danger could be apprehended as far as security is concerned. Second, if any damage is caused to the overflown State, it should have the right to receive reparation. Third, if such territorial State had serious reasons to believe that the space object is dangerous or is employed for aggressive purpose, it should have the right to defend itself', *see* Nicolas Mateesco Matte, quoted by Bittencourt, *supra* note 54, 33.

880 Cheng, *supra* note 20, 389; Bittencourt, *supra* note 54, 34.

881 Bittencourt, *ibid*, 34.

882 *Ibid* , Lyall et al, *supra note* 5, 163; Cheng, supra note 20.

883 Bittencourt, *supra* note 54, 38.

884 Reinhard, supra note 54, 119; Cheng clarifies 'The essence of the functionalists' argument is that the *locus* of an act need be of no moment to its legality or illegality, which can be determined solely by reference to its nature [...]. The effect of the functionalist doctrine which is relied upon by the wait-and-seers allegedly only a temporary expedient , is, therefore, the gradual erosion leading to the eventual abolition of the rule of airspace sovereignty in favor of space activities and space vehicles recognized as lawful by international law in *outer space*. Therefore, the functionalists are not really non-believers in the spatial approach. All that they are saying is that, insofar as a State's space activities are concerned, other State's airspace sovereignty begins and ends at sea level; in other words, it no longer exists.', *supra* note 20, 445/454.

885 Bittencourt, *supra* note 54, 37.

886 Bittencourt clarifies 'Some law scholars and delegations to the UNCOPUOS have defended a delimitation linked to the maximum altitude which an aircraft is capable

Perigee;[887] (iii) Gravitational Limit.[888] Moreover, the Effective Control criteria reminds the beginning of the law of the sea when the three mile limit for territorial sea[889] was based on the coastal State capability control regarding the sea off its coasts. Similarly, the sovereignty of a State should extend vertically as high as it could enforce such sovereignty.[890] Finally, the Arbitrary Delimitation is endorsed by some *spatialists* who agree on a conventionally accorded altitude above which outer space would commence.[891]

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of sustaining aerodynamic lift, due to the existence of layers with enough density to support such physical reaction. Thus, the upper limits of our planet's atmosphere would, in one way or another, represent Air Law's jurisdiction, based on the premise that States have complete and exclusive sovereignty over the column of air above their territories. Beyond the atmosphere, outer space should commence, free from national claims.", *supra* note 54, 46-8.

887 The Lowest Orbital Perigee approach addresses the delimitation of the outer space at the lowest perigee achievable by space objects, i.e., the point of their orbits where they are closest to the Earth's surface. *Ibid.*

888 The Gravitational Limit approach endorses that outer space should commence where Earth' gravitational field cease to be effective. Nevertheless, there is no 'gravisphere', i.e., no physical limit of Earth's gravitation.

889 Reinhardt agrees "that the territorial sea model should be adopted to define vertical sovereignty. A process similar to the evolution in the law of the sea's codification of territorial sea limits could occur in the atmosphere to define the vertical limits of state sovereignty [...]. Any rule delineating vertical sovereignty must be extremely simple to avoid the problems demonstrated in the territorial analogy [...]. The limit could be set in a manner similar to aircraft "flight levels". But using satellite positioning or some other accurate positioning system, to determine vertical position rather than barometric pressure.', *supra* note 54, 126-7.

890 Lyall points out the incongruence of this theory: 'First, it would mean that the sovereignty of different states would extend to different 'heights' – a proposition not likely to be generally acceded to. Second, to set a boundary at the height to which the most potent state could exercise control would be nonsense for less able sates. Third, anti-satellite tests by the US and USSR in the 1980s, by China in 2007 and the US removal of US 193 in 2008 destroyed satellites above minimum satellite orbital heights. Last, because satellites in low Earth orbital travel at speeds in excess of 7 km a second, the period that any satellite is 'above' many states is extremely limited, and the opportunity for the enforcement or application of 'effective control 'is transitory.', *supra* note 5, 165.

891 'Thus in 1975 Italy proposed a boundary at 90km/48 nautical miles based on the reasoning that it was between the 60 km/32 nautical miles upper the limit of any aeroplane, and 120km/65nautical miles, then thought to be the lowest possible orbit. In 1976 Belgium proposed an arbitrary 100km/55 nautical miles for similar reasons. In 1979 the then USSR proposed to the Legal Sub-Committee of COPUOS that the

Legal scholars also refer to the *protozone* area, above 21 km and below 100 km of altitude, where aeronautic and astronautic activities may overlap. Moreover, the *spatialist* approach point out the *mesospace* suggesting the adoption of the passage rights therein, i.e., an analogy with respect to the territorial sea and contiguous zone.[892] Certainly, the difficulty to implement the *spatialists* theories is the intersection with the transitory and evolutional technical aspect in regard to space activities. Publicists argue that *spatialists* and *funcionalists* have been in conflict since the beginning and up to now it was not possible to point out one theory that has received preponderant general support.[893]

V. Case Study: The Argo Programme

1. Preliminaries

The *Argo Programme*, developed under the auspices of the Intergovernmental Oceanographic Commission (IOC/UNESCO), is a case regarding the legal framework overlap law of the sea/ space law regimes applied to floats[894]

boundary between outer space and air –space should be fixed 'by agreement among States at an altitude not exceeding 110 km [60 nautical miles] above the sea level, this to be confirmed by an appropriate treaty [...]. In 2002 Australia modified its definition of 'launch' and 'space object' in its Space Activities Act, 1998, to the effect that a license is now required only if the vehicle or payload is intended to reach more than 100km above sea-level. This may be symptomatic, and, while in itself not a definition of outer space, is perhaps the first indicator of a future general acceptance of the 100/110 km frontier in practice. An agglomeration of unilateral definitions of air/space boundary in national legislation would if uniform crystallize the law.' Lyall et al., *supra* note 5, 169. Bittencourt, *supra* note 54, 56-9.

892 *Ibid.*, 61.

893 *Ibid.*, 71.

894 *Float* is "an autonomous vehicle used for collection of [...] data [...] and floating passively at a pre-programmed pressure level until at predetermined time intervals rising to the ocean surface to broadcast its positions and, as the case may be, collected data to a satellite". Scientists distinguish three groups of floats with respect to their operation: those that drift at the surface only, called *surface floats*; those that change their depth only at the end of their mission from a drifting depth in order to rise to surface, often referred to as *RAFOS* –type floats; and those that frequently change depth during their lifetime, often referred to as *profiling or Argo-type floats*. This category is the most relevant in the context of this paper. *See* IOC, "Draft [Practical] Guidelines of IOC, Within the Context of UNCLOS, for the Collection of Oceanographic Data By Specific

deployed on the world oceans and monitored via remote sensing satellites. Actually, floats might drift into waters under coastal State jurisdiction, e.g., in the Economic Exclusive Zone. Accordingly, coastal State sovereign rights and jurisdiction on the EEZ with respect to floats therein and the ongoing space law principles applied to the floats, specifically on remote sensing satellites regarding Ocean Data Acquisition Systems (ODAS), interconnected with Argo Project, open the Pandora Box. It is an example related to the complex coexistence between the law of the sea and space law *vis-a-vis* coastal State sovereignty.

2. Argo Project

The purpose of the *Argo Project*[895] is to obtain a systematic and complete set of data of the oceans in order to observe, analyse, and forecast the development of the oceans and the climate.[896] From this perspective, floats are extensively deployed in the framework of the *Argo Project*. The information gathered is available via the World Wide Web in near real time[897] for potential user such as governments, science, and industries to produce analysis, forecasts, and other useful products.[898] The codification of international law of the sea regarding the deployment of profiling floats in the high seas within the ***Argo Programme*** has been achieved under the aegis of the IOC[899] through resolutions.

Means", Seventh Meeting of Advisory Body of Experts on the Law of the Sea (IOC/ABE-LOS VII), (19-23 March 2007, Libreville, Gabon), IOC/ABE-LOS VII/7), 2.

895 The Argo Project is part of the Global Ocean Data Assimilation Experiment (GODAE), which in turn is part of the Global Ocean Observing System (GOOS). *See The Structure, Mandates and Modus Operandi of GOOS*, Fifth Session of the IOC – WMO-UNEP Committee for the Global Ocean Observing System – GOOS, Paris, 28-30 June 2001, IOC-WMO- UNEP/I-GOOS-V; and Report of the ad hoc Working Group of Experts on GOOS-UNCLOS, Sixth Session of the IOC- WMO-UNEP Committee for the Global Ocean Observing System, (Paris, 10-14 March 2003), IOC-WMO-UNEO/I-GOOS-VI/9. *See* WB page of Argo at www.ucsd.edu.

896 Report by GOOS Project Office –GPO, *The Argo Project Development*, First Meeting of the Advisory Body of Experts on the Law of the Sea (ABE-LOS), (Paris, 2011)11-13, IOC/ABELOSI/10.

897 The data is available at the International Argo Information Centre (AIC), Toulouse, France.

898 *See* IOC Resolution EC-XLI.4.

899 *See* <www.ioc.unesco.org/iocweb/index.php>.

3. IOC Resolutions

a. Juridical Nature of the IOC Resolutions

Binding or non -binding, this is the question.

It is usually affirmed that IOC resolutions are essentially recommendations to IOC Member States so that countries taking national action on the matter adopt a standardized approach with respect to the activities of floats deployment on high seas which may drift into EEZs. The IOC resolutions are regarded as *soft law*. It is generally understood that *soft law* creates and defines goals to be achieved in the future rather than actual duties, establishes programmes rather than prescriptions, and offers guidelines and recommendations rather than strict obligations. The IOC resolutions are not considered a formal source of international law *per se*. The coastal State cannot unilaterally impose the voluntary guideline obligations to the extent that they affect other international obligations, inasmuch that States, in good faith may and should express their real intention to the international community through legally-binding treaties that clearly state right and obligations.

Nevertheless, this does not mean that guidelines addressed in the resolutions are completely lacking in their juridical impact on the development of the legal regime on the deployment of profiling floats in the high seas. In fact, such resolutions have indirect limited juridical effect. The IOC resolutions may provide the legal background for a prospective international law on the matter, i.e., to crystallize existing customary rules and/or create new customary law on the issue or provide the legal background to a treaty. For legal scholars, 'the increasingly misleading nature of the term *soft law* has already been indicated, and as the literature reveals, it is an amorphous conglomeration of instruments some [of] which are non-binding, some binding in parts because they may include elements of customary law or *provisions addressed in treaties,* or provisions which may in time crystallize into custom, some never intended to be binding but merely to provide guidance or set goals.'[900]

b. Evolution of the IOC Resolutions on the Argo Programme

The *Argo programme* shall be fully consistent with the international legal framework adopted by UNCLOS regarding marine pollution, marine scientific research and marine technology. Resolution XX-6 addresses that

900 Patricia W. Birnie and Alan Boyle, *International Law and the Environment* (Oxford: Clarendon Press, 2002), 44-45.

'*the concerned coastal States must be informed in advance, through appropriate channels, of all deployments of profiling floats which might drift into waters under their jurisdiction, indicating the exact locations of such deployments*.' This resolution recognizes the coastal State right to be previously informed with respect to the possibility of Argo floats drift into the EEZ.

Finally, IOC Resolution EC-XLI.4, 2008, adopted the '*Guidelines for the Implementation of Resolution XX-6 of the IOC Assembly regarding the Deployment of Profiling Floats in the High Seas within the Framework of the* ***Argo Programme'***. Under Resolution EC-XLI.4, '*an IOC Member State must be informed in advance, through appropriate channels, of the deployment in the high seas of any float within the framework of the Argo Programme (hereinafter, Argo Programme float) that may enter its EEZ*.'[901] Moreover, the implementer of the **Argo Programme float** will[902] notify the Argo Focal Point of the IOC Member State, by transmitting to it, reasonably in advance of the expected entry of the float into the EEZ, the following information: type of float deployed; date and geo-coordinates of latest location of the float; date and geo-coordinates of latest location of the float; contact information of the implementer; parameters and variable being collected by sensors; other information that the implementer might consider of interest; other **Argo Programme float** information that the coastal State might consider of interest, as specified in the original notification.

Furthermore, the IOC Resolution EC-XLI.4 provides: '*All the data obtained by the Argo Programme floats, once they enter the EEZ, will be made freely available by the implementer, with the exception of data of direct significance for the exploration and exploitation of natural resources, whether living or non-living, which to protect its sovereign rights and jurisdiction in its EEZ, the IOC Member State into whose EEZ the float enters formally requires the implementer no to be distributed*. [...].'

The two essential principles endorsed by IOC Resolution EC-XLI.4, (i) coastal State rights to be informed in advance on Argo floats that might enter in the EEZ and (ii) free availability of data obtained by Argo floats, are the start point to a compromise between the coastal State sovereign rights on the EEZ, addressed in UNCLOS, and the free flow of information principle adopted by the legal framework on remote sensing. Nevertheless, remote sensing activities, in accordance with the 'Principles Relating to Remote Sensing of the Earth from Space,' Principle IV, shall '*be conducted on the basis of*

901 *See* IOC Resolution EC-XLI.4, paragraph 1.

902 It was agreed to use "will" instead of "shall/should". *See* IOC/ABE-LOS-VIII/3, 4.

respect for the principle of full and permanent sovereignty of all States and peoples over their own wealth and natural resources, with due regard to the rights and interests, in accordance with international law, of other States and entities under their jurisdiction. Such activities shall not be conducted in a manner detrimental to the legitimate rights and interests of the sensed State.'

4. Marine Scientific Research in the Economic Exclusive Zone (EEZ)

UNCLOS does not address in Article 1 definition of the term 'marine scientific research', although Part XIII provides specific provisions on the matter.[903] Legal scholars suggest that marine scientific research can be defined 'as any investigation of a phenomenon occurring in the seabed or the subsoil, the water column, or the atmosphere directly above the water'. However, publicists argue whether a data collection network that collects the data in a routine and systematic manner in the ocean by means of profiling floats for the purpose of so-called operational oceanography constitutes marine scientific research.[904] If considered applied research, coastal State consent will be required.

Indeed, the essential approach provided in UNCLOS, Article 246 (2), requires the 'consent' of the coastal State with respect to marine scientific research to be conducted in its EEZ. Although UNCLOS does not expressly distinguish between 'pure' and 'applied research', international scholars refer to those two categories of research: [905]

'Applied research' has direct significance for the exploration and exploitation of natural resources.[906] Such research clearly impinges directly upon the

903 UNCLOS, Articles 238 – 265.

904 Moreover, A. Yankow, chair of the UNCLOS III Third Committee which negotiated the draft provisions with respect to marine scientific research, notes 'the pertinent provisions on [article dealing with] marine scientific research would not create any difficulties and obstacles hindering adequate meteorological coverage from the ocean areas, including areas within the exclusive economic zone, carried out both in the framework of existing international programmes and by all vessels, since such activities had already been recognized as routine observation and data collecting which was not covered by Part XIII of [UNCLOS] and that they were in the common interest of all countries and had undoubted universal significance.' *See* A. Yankov, Report of the Chairman on the Work of the Committee, 46th Meeting – Third Committee, Third Conference on the Law of the Sea, *Official Records*, vol.15 (New York, 1982), 103.

905 *Ibid.*, 405.

906 UNCLOS, Article 246 (5) (a)

interests of the coastal State in exercising its sovereign rights over its natural resources. The same is true for research which is particularly intrusive upon coastal State's maritime zones. For that reason two other categories of research are assimilated to the archetypical 'applied research': first, research which involves drilling into the continental shelf, the use of explosives or the introduction of harmful substances into the marine environment; and second, research which involves the construction, operation and use of artificial islands, installations and structures[907] . In the case of 'applied research', the coastal State has a complete discretion whether to give its consent or not.

'Pure research' is research which is carried out 'exclusively for peaceful purposes and in order to increase scientific knowledge of the marine environment for the benefit of all mankind.'[908] In the case of pure research, consent must 'in normal circumstances' be given. Wherever marine research is developed it must be conducted exclusively for peaceful purpose.[909]

5. Legal Status of Research Installations

Although marine scientific research is carried out on ships, several researches also often encompasses fixed structures, buoys and other floating objects in the ocean, and, recently, the use of unmanned submersibles. Initially, in the 1960s, IOC/UNESCO in tandem with the International Maritime Organization (IMO) began to refer to the legal status of such objects, often considered as ocean data acquisition systems. In 1969 they published a report on Legal Problems Associated with Ocean Data Acquisition Systems (ODAS).[910] Moreover, in 1972, a preliminary draft convention on the matter was proposed. However, currently, the issue is covered by the UNCLOS.

6. Experiences of IOC Member States

The IOC Reports reveal Member States divergences with respect to the legal aspects on the *Argo Programme* regarding floats that might drift into waters under coastal State jurisdiction. The key issue is related to the requirement or not of coastal State 'consent' for the deployment of floats into the EEZ.

907 UNCLOS, Article 246.

908 UNCLOS, Article 246 (3).

909 *Ibid.*

910 IOC Technical Series N. 5, 1969; Churchill, *supra note* 24, 412.

Argentina, e.g., notes that 'all activities directed at obtaining scientific data by instrument in instruments in situ in the jurisdiction waters of coastal States are subject to the substantive provisions of Part XIII of UNCLOS, in particular, those asserting the consent of the coastal State presiding such activities, in protection of its sovereign rights and jurisdiction over living and non-living resources.'[911] Similarly, the Russian Federation recognizes that 'the collection of oceanographic data by Argo floats is viewed as falling in the field of marine scientific research and as such has to be considered under Part XIII of UNCLOS. If there is a possibility that the drifting buoys may enter the EEZ of a coastal State, this State has not to be just informed well in advance, but also give its consent to such an entry or withhold its consent. Under Russian Federation legislation the collection of oceanographic data is qualified as a research activity and not as an operational activity.' [912]

On opposite opinion, The United States stresses that 'the routine collection of near-real time ocean data that are distributed freely and openly, and are used for monitoring and forecasting of ocean state, for weather forecasts and warnings, and for climate prediction, is analogous to the collection of marine meteorological data, as decided by the Third UN Conference on the Law of the Sea, and therefore does not constitute *marine scientific research* regulated by Part XIII of UNCLOS.' Nevertheless, USA agreed that the deployment of Argo floats in EEZ is a bilateral matter.[913]

The divergent perspectives of States on the matter have a strong impact on the implementation of the holistic law of the sea/space law framework adopted under the Argo Programme. In several cases, the settlement of dispute has been mediated through diplomatic negotiations under the IOC/UNESCO.

7. Space Law Spectrum: Remote Sensing

With the arrival of the Space Age, argues Bin Cheng, "Roof Ripped off the Castle?"[914]

The legal and regulatory framework currently dealing with remote sensing activities is addressed under international law by the Outer Space Treaty, 1967, and a specific U.N. Resolution 41/65, titled "Principles Relating to

911 IOC/ABE-LOS IX/3 DRAFT, Paris, 24 April, 2009, 7.

912 *Ibid.*, 6.

913 *Ibid.*, 7.

914 Cheng, *supra* note 20, 577.

Remote Sensing of the Earth from Outer Space,"[915] which stands a legal system *in status nascendi* on the matter. The UN Remote Principles are considered by legal scholars as reflecting a customary law and binding to nations.[916]

The key aspects of the OST related to remote sensing recognize that sovereignty does not extend to outer space; outer space is free for use by all countries; and the general State responsibility in conducting such activities, which could result in international liability for damage caused to other States. This issue was further elaborated in the 1972 Convention on International Liability for Damage Caused by Space Objects.

The 1986 UN Remote Sensing Principles place no restrictions based on geography aspects, including natural resources; 'no prior consent' of the sensed State is required and no limitation is imposed on the sensing capabilities, e.g., spatial resolution, types of sensor, etc. Principle IV has aroused a great deal of debates and conflicts by bringing two conflicting concepts together, namely: the freedom of remote sensing activities and on the other hand the sovereignty and rights of the sensed State, as well as the legitimate rights and interests of any State and its entities. Albeit acknowledging the concept of a State's full and permanent sovereignty over its own natural resources, this principle does not change the fact that the sensed State has no veto rights to prevent it from being sensed or even an exclusive or preferential right of access to ensuing data. Principle XII only provides the sensed State with a right of access to primary and processed data relating to the territory under its jurisdiction, on a non-discriminatory basis and on reasonable cost terms.

The questions which arise are: How to face sovereignty issues when the buoys cross boundaries? What regime will prevail? Does the arrival of the Space Age, dramatically interferes with the new law of the sea? Moreover, the legal aspects regarding the interconnections between the international space law on remote sensing and UNCLOS, *vis-a-vis* the EEZ, is more ambiguous, i.e., strictly speaking it is not part of a State's national territory. Indeed, data gathering from outer space by artificial satellites under general international law is lawful, but data gathering by one State in the territory of another State without the latter's permission, tacit or express, is unlawful.[917]

915 UN Assembly, 03 December 1986.

916 "Potential to enforce the principles and their legal value: The UN Remote Sensing Principles", *The Legal Aspects of Remote Sensing*, Grey Book (England: Geospatial Insight, 2015), 6.

917 'Legality depends thus not upon the nature of the act (*pace* the functionalists), but upon

Bin Cheng properly addresses the question: "Arrival of Space Age: Roof Ripped Off the Castle?"[918] In fact, Pandora's Box has been opened, and the international community must be ready to cope with surprises arising from remote sensing activities, as well as from domestic legal systems on the issue. Thus the drafting of an international treaty on remote sensing, which will take into account the interests of both developed and developing countries, has become urgent.

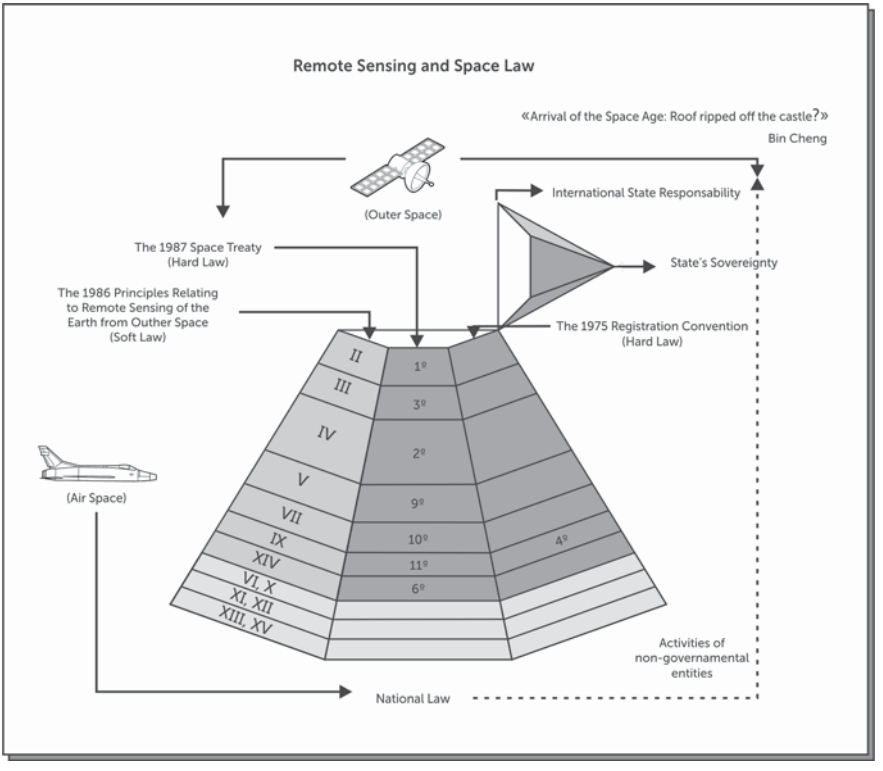
8. Chapter conclusions

Treaties and customary international law have been the main methods of creating biding international law. Frequently, they are preceded by non-binding instruments (*soft law*), which provide guidelines to States that closely border the traditional sources of international law. Although the guidelines adopted by IOC resolutions regarding the deployment of profiling floats in the high seas have been generally considered *soft law*, the impact on the States' behaviour suggests that such IOC resolutions might be the framework for further customary or treaty law on the matter. The most realistic option is to revisit the international coastal State's behaviour on the issue and the national legal framework regarding the deployment of profiling floats and drifting buoys in the high seas within the ***Argo Programme***.

I have based the attached chart portraying Bin Cheng's prophecy. It disclosures the impact of remote sensing activities on the Earth's ecosystem and reflects the pressure of facts on Law. Blue refers to the OST/ UN Principles correspondence. Yellow encompasses UN Principles further added to the OST framework.

its location or, in other words, its *locus* [...]. Where are these data gathering satellites located, in international space or national space?' Cheng, *supra* note 20, 579; Lyall et al., *supra* note 5, 415

918 Cheng, *ibid.*, 577.



II - Special needs of developing countries

III - Respect of IL, UN Charter, Space Treaty, ITU

IV - Freedom of outer space. Respect to the other States' sovereignty over resources and their rights and interests

V - Opportunity for participation

VII - Technical assistance

IX - UN Secretary-General to be kept informed

XIV - International responsibility of the State

VI - Co-operation in data collection

X - Promote environmental protection

XI - Promote information regarding natural disaster

XII - Dissemination of primary data and analyzed information to sensed State

XIII - Interests of sensed State

XV - Settlement of Disputes

VI. Concluding Remarks

Law of the sea and space law are consistent with the ongoing revolution in technology. Space law has emerged as the most recent branch of the legal sciences spurred by the spectacular scientific and technological development. The initial effort at regime creation in outer space was framed, in particular, by two analogies – the high seas and Antarctica, although air law was also referenced.

At the beginning, the Ocean Age aimed to explore the *unknown* under a horizontal perspective. Coastal States, historically, have made claims to waters adjacent to their territory, called the territorial sea. Considering the technological advances and the challenges of the last century political scenario, lately UNCLOS addressed the legal framework for the oceans in the horizontal and vertical perspectives.

The solved dilemma by the law of the sea on boundaries delimitation inspired the Space Age. Prior to space activities, States had been able to maintain their secrets due to the concept of national sovereignty. *Exploring the unknown* on the high frontier under vertical perspective, i.e., through remote sensing, dramatically impacted the dogma of sovereignty. The delineation of boundary with respect to outer space must be reviewed, however, much of the problem stems from the fact that there is no clear physical boundary between air and space. Solving the future of space regulation should not be based through the use of last century analogies, but rather to develop a space normative regime requiring a more appropriate development to face new technology challenges.

For both spectrums, law of the sea and space law, the process of law-making has been an attempt to balance as well as to solve the political and technical aspects of the issue. These challenges evoke new legal management techniques as to respond to the emergent and complex questions involving ocean use at the light of the contemporary space activities and space legal framework. This is the enigma for the future: breaking the sovereignty paradigm.

13

BLACK SEA, SUSTAINABLE DEVELOPMENT AND BLUE ENERGY: WHAT ROLE FOR THE EUROPEAN UNION?[919]

Montserrat Abad Castelos

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I. Introduction

The Black Sea enjoys enormous importance from a number of standpoints: if we consider all the economic, political, social and environmental factors that come together, its strategic nature for the world as a whole, not just Europe, is immediately apparent. In this regard, mention is often made of it serving as a bridge between Europe and Asia, since it connects Europe with the Caspian Sea area, Central Asia, the Middle East and, going further, with South-East Asia and China[920]. Its strategic nature is also due to its connection with certain wide-ranging threats of a more global nature, such as human trafficking as a ramification of illegal migration, terrorism or drug trafficking.

Furthermore, when we talk of the Black Sea basin we are in fact referring to an area that extends beyond the immediate environment of its waters: in addition to a respectable total of six riparian countries (Romania, Bulgaria, Turkey, Georgia, Russia and Ukraine), Greece, Armenia and Azerbaijan can also be considered to fall within its bounds.

There are obviously wide-ranging differences between the above-mentioned countries, according to a variety of indicators: economic development; governance, democracy and human rights protection; the pace at which reform is taking place in these aspects; access to energy resources (whilst one riparian country can be considered a veritable energy superpower, others are energy-deficient and highly dependent on imports; some countries are energy producers and other are simply countries through which energy passes); and their relationship with the EU. In the latter regard, some are EU Member States and others are not: one is an EU candidate country (Turkey), others are European Neighbourhood Policy (ENP) partners, and another (Russia) is a strategic partner for the EU. Amongst the ENP partner countries, three have shown a willingness to achieve closer ties with the EU (Georgia, Moldova and Ukraine), whilst others evidence a certain degree of reticence and appear to favour partnerships with other interlocutors (Armenia, Azerbaijan)[921]. Additionally, there are a number of frozen conflicts within the area, such as those in the Republic of Moldova (Transnistria) and Georgia (Abkhazia and South Ossetia), or that between Armenia and Azerbaijan (the Nagorno-Karabakh enclave). To this we must add the serious

920 *High-level Black Sea Stakeholder Conference*, Sustainable Development of the Blue Economy of the Black Sea, *Background paper for the stakeholders conference*, 30 January 2014, Bucharest, Romania, p. 4.

921 In relation to this policy, currently under review, see *Review of the European Neighbourhood Policy*, JOIN (2015) 50 final, 18.11.2015.

conflict provoked by Russia's illegal annexation of Crimea in 2014, which has brought about a substantial modification in the strategic landscape not only of the Black Sea Basin itself, but also of the outlying area, seen as an example of a broader systemic challenge to the European security architecture[922].

In addition to the complex political situation described above, it must also be noted that the Black Sea ecosystem is suffering from substantial environmental degradation: as a virtually enclosed inland sea it is particularly fragile from a physical standpoint, and its vulnerability has regrettably not been sufficiently compensated for by the introduction of appropriate policies to prevent its deterioration. The enormous pressure resulting from numerous human activities such as industrialisation, urbanisation, overfishing or transport (not only of hydrocarbons, since the arrival of invasive species in ships' ballast water has also been proved to represent a serious environmental threat) has led to serious problems of pollution, loss of biodiversity, extinction of species and eutrophication, amongst others[923].

As is always the case in areas that suffer high volumes of traffic the fragility of the environment is increased, particularly as far as hydrocarbons are concerned; in this regard, the Black Sea is a much-used corridor along which the latter are transported, mainly from the Caspian Sea, bringing with it the associated risk of accidental spillage[924]. And as if this situation were not in itself cause for concern, the risks may be even greater in future, given the possibility of hydrocarbon exploitation in the Black Sea itself, with offshore oil and gas deposits pending exploration in Romania, Bulgaria and Turkey, which could add new sources of pollution to the existing ones[925]. If this scenario were to occur, the Black Sea could possibly never recover from the consequences of a spill such as that which occurred in the Gulf of Mexico in 2010.

922 Cf. The European Parliament, *Report on the strategic military situation in the Black Sea Basin following the illegal annexation of Crimea by Russia*, A8-0171/2015, DE 21-5-2015; p. 6.

923 See, *inter alia*, Adams, R., "The Ecological Decline of the Black Sea", 9 *Colorado Journal of International Environmental Law and Policy*, 1998, pp. 209-217; Postiglione, A., "The Mediterranean and Black Sea Ecosystem under Discussion", 37 *Environmental Policy and Law*, 2007, pp. 489-500; Oral, N., "PSSA for the Black Sea", 35 *University of Hawai'i Law Review*, pp. 787-804, particularly pp. 789 ff.

924 See Triantaphyllou, D., "The 'security paradoxes' of the Black Sea region", 9 *Southeast European and Black Sea Studies*, Number 3, September 2009, pp. 225-241, particularly p. 229.

925 *High-level Black Sea Stakeholder Conference*, Sustainable Development of the Blue Economy of the Black Sea, *Background paper for the stakeholders conference…*, *loc. cit.* p. 4.

II. Sustainable development and blue energy: from a universal strategy to that of the European Union

A suitable starting point for discussion would appear to be the parameters established by the recently published Sustainable Development Goals included in the 2030 Agenda for Sustainable Development, passed by the UN General Assembly in September 2015[926]. Although all 17 goals are interrelated, some of them are more closely linked than others, amongst them those that serve as a basis for this paper. The goals in question are numbers 7, 8, 9, 13 and 14, namely those that state the need to ensure access to "affordable, reliable, sustainable and modern energy for all"; promote "sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all"; build "resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation"; take "urgent action to combat climate change and its impacts"; and, last but not least, "conserve and sustainably use the oceans, seas and marine resources for sustainable development".

This new framework in turn rests on the foundations provided by previous initiatives in the energy field promoted by the same platform, the United Nations, in recent years. Sustainable development is considered to be a pillar (although this situation, unfortunately, is still more theoretical than real). Thus, a significant proportion of the *"Sustainable Energy For All"* initiative, launched by the UN Secretary-General in 2012 to mobilize action from all sectors of society in support of three interlinked objectives to be achieved by 2030: providing universal access to modern energy services; doubling the global rate of improvement in energy efficiency; and doubling the share of renewable energy in the global energy mix. Similarly, the objective of sustainable development is one of the main foundations of a number of significant Reports issued by the United Nations Secretary-General, of which we will mention some of the most relevant for our purposes. Thus, the principle of sustainable development to a greater or lesser extent permeates the structure of the following documents: the *United Nations Secretary-General's Report on marine renewable energies*, 2012[927]; the *Climate Change Expert Group's Report on renewable energies*, published some months previously[928];

926 UNGA Resolution 70/1, *Transforming our world: the 2030 Agenda for Sustainable Development*, A/RES/70/1.

927 UN Doc. A/67/79.

928 IPCC, *Special Report on Renewable Energy Sources and Climate Change Mitigation* (2011).

or the report on *new and emerging technologies*.[929] Additionally, the United Nations General Assembly's open-ended informal consultative process on the Oceans and the Law of the Sea (UNICPOLOS), whose mandate is precisely to deal with matters relating to oceans within the context of sustainable development, devoted its thirteenth meeting, held in 2012, to discussing above all the subject of marine renewable energies, with a focus that can generally considered to be highly positive.[930]

Within the sphere of the European Union, it should be remembered that along with its exclusive competence on conservation on marine biological resources[931], the EU also has shared competences on other aspects under the common fisheries policy, energy, environment or transport, among other fields which can be relevant here[932]. In addition to this, sustainable development is a general and transversal goal[933], and that in line with this the Integrated Maritime Policy is one of the EU's vehicles for promoting the coherent adoption and coordination of decisions aimed at maximising sustainable development, economic growth and cohesion between Member States. Amongst the policies included under this umbrella are two with particular relevance for our case: *blue growth* and *sea basin strategies*, that for the Black Sea being included amongst the latter. In any event, it should also be borne in mind that the Black Sea basin is also a target for other EU policies and initiatives, which will be considered below; a case in point is the European Neighbourhood Policy (ENP), in which sustainable development is seen as a common value that partner States agree to accept[934].

Remaining for the moment within the general sphere, it should be noted that blue growth has been an ever-present discourse within the European Union in recent years, but particularly since 2012, when the Commission drafted its Communication on *Blue Growth: opportunities for marine and maritime sustainable growth*. In this document, together with other aspects of the blue economy, blue energy is seen as one of its priority areas for action, and one that could

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929 "New and emerging technologies: renewable energy for development", UN Doc. E/CN.16/2010/4.

930 See http://www.un.org/Depts/los/consultative_process/consultative_process.htm.

931 TFEU, Article 3.

932 TFEU, Article 4.

933 TEU, Article 3 and TFEU, Article 11.

934 See *Joint Consultation Paper. Towards a new European Neighbourhood Policy*, JOIN (2015) 6 final, 4-3-2015, particularly pp. 1-3.

aid job creation, basically in coastal regions. The Commission mentions EU industry's position as a world leader in the sector and highlights blue energy's capacity to contribute to "reductions in carbon emissions outside Europe" through exports; the possibility of exploring "synergies […] with the offshore conventional energy sector" (e.g. with regard to infrastructure and safety challenges); and the potential to "secure affordable energy supplies in the EU"[935].

With this as a starting point, more recent documents have also acknowledged the important role that can be played by marine energy resources, for example the 2013 Communication on *Energy Technologies and Innovation*[936] or the Communication on *Blue Energy: Action needed to deliver on the potential of ocean energy in European seas and oceans by 2020 and beyond*, adopted in 2014. The latter includes, in addition to an overview of the current situation and the main opportunities and threats remaining, an "Action Plan for Ocean Energy" that envisages a two-step approach: a first phase (2014-16) that includes the setting up of an Ocean Energy Forum to bring stakeholders together in order to develop a shared understanding of the main problems and devise workable solutions, as well as the development of an Ocean Energy Strategic Roadmap; and a second phase (2017-2020) that contemplates the possibility of developing a European Industrial Initiative based on the outcomes of the first stage[937]. A few months later, in its Communication *Innovation in the Blue Economy: realising the potential of our seas and oceans for jobs and growth*, also dated 2014, the Commission highlights, amongst other aspects, the need to increase knowledge of our seas in order to promote growth in the blue economy, thereby eliminating the hindrances caused by a current lack of information that is holding back innovation in this area; the setting up of a "sustainable process", through a variety of channels, in order to "ensure that marine data is easily accessible, interoperable and free of restrictions on use, with a specific target of developing a multi-resolution map of the entire seabed and overlying water column of European waters by 2020"; the creation of an information platform across the whole Horizon 2020 programme in which, in collaboration with Member States, it is intended to include information on nationally funded marine research projects; and to encourage "stakeholders in the blue economy to apply for a Knowledge Alliance and marine Sector Skills Alliance"[938].

935 COM (2012) 494 final, 13-9-2012, p. 8.

936 COM (2013) 253 final, 2-5-2013.

937 COM (2014) 8 final, 20-1-2014, particularly pp. 5-9.

938 COM (2014) 254 final, 8-5-2014.

III. Sources of marine renewable energies and adequacy in the case of the Black Sea

1. Kinds of marine renewable energies

Marine renewable energies are a form of renewable energy deriving from the various natural processes that take place in the marine environment. There are four kinds of such energy, namely ocean energy; wind energy from turbines located in offshore areas, geothermal energy derived from submarine geothermal resources; and bioenergy derived from marine biomass, particularly ocean-derived algae. In turn, renewable ocean energy comes from six distinct sources, each with different origins and requiring different technologies for conversion, but having in common the fact that they are all obtained from the potential, kinetic, thermal and chemical energy of seawater. These six distinct sources are waves, tidal range, tidal currents, ocean currents, ocean thermal energy conversion and, finally, salinity gradients. More specifically, waves, which are generated by the action of wind on water, produce energy that can be harnessed. With regard to tides, their amplitude generates energy through the cyclical rise and fall in the height of the ocean. The same is true of tidal currents, which are generated by horizontal movements of water, their flows resulting from the rise and fall of the tide. Ocean currents, which exist in the open ocean, are another source of energy. Ocean thermal energy conversion, on the other hand, is a technology for taking advantage of the solar energy absorbed by the oceans, based on the temperature difference between the top layers of water and those at a greater depth, which are much colder. However, a minimum temperature difference of 20ºC between layers is needed in order to harness this energy, which can therefore only be produced in certain parts of the world, such as equatorial and tropical regions. Finally, salinity gradients arise from the mixing of freshwater and seawater, which takes place at river mouths and releases energy as heat. This energy can be harnessed through a process of inverse electrodialysis, based on the difference in chemical potential between freshwater and seawater, or through an osmotic power process based on the natural tendency of the two types of water to mix together.[939]

The development status of these technologies differs widely, although most of them are still either embryonic or in their infancy, ranging as they do from the conceptual stage to the prototype stage, taking in the pure research

939 IPCC, *Special Report on Renewable Energy Sources and Climate Change Mitigation* (2011)…, *loc. cit.*, pp. 503 ff.

and development stage on their way.[940] The IPCC highlights tidal range technology as being the most advanced, and in fact as the only form of ocean energy technology (excluding marine wind energy technology) that can currently be considered 'mature'.[941] Although marine energy technologies are still generally at an early stage of development, it has to be said that they could make much swifter progress if investment in them were higher. Prominent among the leaders in the development and commercialisation of marine renewable energy technologies are nations such as the United Kingdom, Ireland, the United States, Australia, New Zealand, Finland, Denmark, Belgium, France, Germany and Japan.[942] However, the economic crisis which has been affecting a number of the world's developed countries has had necessarily a negative effect on the flow of investment towards technologies of this kind.

Although forecasts vary widely, depending on who is making the prediction, a prudent approach indicates that it any significant deployment of ocean energy technologies is unlikely to occur before 2030, whilst commercial deployments are expected to continue expanding beyond 2050.[943] It remains to be seen, therefore, when these technologies will be able to make a significant contribution to the global energy supply. At the moment, only marine wind energy can be considered to be relatively close to beginning to be competitive with fossil fuels or nuclear energy. However, it must be said that in spite of the incipient status of all marine renewable energies forecasts of their potential are on the whole clearly optimistic. According to the IPCC, the potential for technically exploitable marine renewable energies, marine wind power excluded, is estimated at some 7,400 exajules (EJ) per year.[944] This figure is considered to be more than enough to meet human energy needs not only at present, but also well into the future.[945]

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940 Ibid., Chap. 6.3.1.

941 Ibid.

942 Nevertheless, the list of leading countries in this sector varies according to the source consulted. For example, the countries mentioned in the Report of the UN Secretary-General on marine renewable energies, published in 2012, do not exactly coincide with those that appear in other places, such as specialist websites. See, in any case, the above-mentioned report, UN Doc. A/67/79, dated 4 April 2012, p. 8.

943 IPCC, *Special Report on Renewable Energy Sources and Climate Change Mitigation* (2011)…, *loc. cit.*, p. 527.

944 Ibid., p. 501.

945 Ibid. and UN Doc. A/67/79, pp. 6-7.

2. Marine renewable energies and the Black Sea

If we take the parameters of sustainable development, and by extension its three constituent dimensions, namely its economic, social and environmental aspects, it is clear that marine renewable energies score very highly in this regard, as the UN Secretary General's 2012 report demonstrates[946]. A similar conclusion was also reached in the UNICPOLOS meeting devoted to marine renewable energies[947], the idea also being supported by doctrinal studies on the subject[948]. Although it is true that certain problems or challenges can always be mentioned, particularly in the economic and environmental spheres[949], the overall balance is nevertheless clearly favourable, since the benefits of sustainable development from all angles are self-evident (job creation, stimulus to the economy, improved access to energy, energy security, reduction of emissions, climate change mitigation, zero risk of hydrocarbon spills and a reduction in the probability of hazardous accidents, to name but a few).

Without prejudice to the above, however, it should be realised that it will never be possible to obtain all of the various kinds of renewable energy in all possible surroundings. We have seen how some kinds of marine energy are

946 UN Doc. A/67/79, pp. 4 ff.

947 See, for example, 25 *Earth Negotiations Bulletin*, Number 88 4 June 2012, p. 5; and *Report on the work of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea at its thirteenth meeting*, Doc. A/67/120, 2-7-2012.

948 Abad Castelos, M., "Marine Renewable Energies: Opportunities, Law, and Management", 45 *Ocean Development & International Law*, 2014, pp. 221-237; particularly pp. 223-225.

949 It must be acknowledged that issues can also rise in the social sphere, for example a rejection of the more visible kinds of technology in certain surroundings; see Kerr, S., Colton, J. & Wright, G., "Rights and ownership in sea country: implications of marine renewable energy for indigenous and local communities", 52 *Marine Policy*, 2015, pp. 108-115. Above all, however, the main challenges are to be found in the economic sphere, due to the huge costs involved and the massive investments needed, and in the environmental sphere, resulting from other possible negative impacts; see Wright, G., "Strengthening the role of science in marine governance through environmental impact assessment: a case study of the marine renewable energy industry", 99 *Ocean & Coastal Management*, 2014, pp. 23-30. Nevertheless, further research is needed to determine the scope of certain potential problems (e.g. the impact of certain devices on marine fauna and the possible adverse impact of tidal barrages). A more detailed overview is provided in Copping, A., Battey, H., Brown-Saracino, J., Massaua, M. & Smith, C., "An international assessment of the environmental effects of marine energy development", 99 *Ocean & Coastal Management*, 2014, pp. 1-11.

dependent on certain particular physical characteristics such as temperature or the existence of currents, amongst other. Taking this into account, the Black Sea has the potential for at least some forms of marine energy, namely marine wind energy, wave energy, tidal barrages and the production of bio-fuels[950]. Furthermore, it should be noted that the current situation of environmental degradation affecting the Black Sea makes it an ideal space for investing in climate-friendly technologies, since they help to reduce emissions and avoid the risk of accidents with serious consequences, unlike, for example, offshore oil rigs.

However, we should also be aware that many aspects of the harnessing and use of energy resources, marine energy included, often require transnational management and inter-State cooperation (e.g. basic issues such as cable-laying, data exchange, network connections, etc.) that are not always easy to achieve in a space that has historically been marked not only by the absence of mutual trust, but also by rivalries between neighbouring states and even open conflict.

III. The European Union and Blue Energy in the Black Sea

It is essential to bear in mind that the EU's Integrated Maritime Policy (IMP), which first came into being in 2007, in 2009 acquired an international dimension transcending its borders before adopting, in 2012, blue growth as one of its main pillars, at least from the theoretical standpoint. In this sphere, the EU has carried out a strategic assessment of the potential for cooperation in the context of Blue Growth in the various sea basins concerned and has sponsored a series of studies, through DG MARE, to analyse its blue growth potential, examining in detail each of the different development models of its maritime industries, with the aim of drafting specific plans for the future. In this context the Black Sea has also come under the spotlight in order to explore its current situation and the potential added value that maritime cooperation could bring to the surrounding area, identifying the main maritime players in the region and the aspects that would benefit from a sea-basin approach. This has taken the form of a report, published in 2014 and titled *Black Sea - Identification of Elements for Sea Basin Cooperation*, which

950 *Study to Support the Development of Sea Basin Cooperation in the Mediterranean, Adriatic and Ionian, and Black Sea*, Task 4 Report, *Black Sea - Identification of Elements for Sea Basin Cooperation*, March 2014 (MARE/2012/07-Ref. No 2), pp. 3 ff; also see United States Agency for International Development, *Black Sea Regional Transmission Planning Project: Renewable Energy Compendium Report*, Washington, 2012, pp. 17 ff.

lists the most significant initiatives and programmes in the area of maritime cooperation at sea basin level, maps the existing projects and initiatives with a maritime dimension and enumerates the possible sources of funding for blue growth projects in the Black Sea[951]. The report also identifies what are considered to be the priorities[952], which in the case of sectoral categories include offshore renewable energies, together with offshore oil and gas, as a means of ensuring energy security in the region[953]. Horizontal actions cover four main areas, each with its corresponding sub-categories, namely "Planning a blue economy" (Maritime Spatial Planning; development of smart infrastructure, etc.); Developing knowledge (joint data collection; capacity-building across individuals, institutions and society; sharing maritime culture and heritage); Supporting business growth (facilitating access to finance; promoting innovation; development of maritime clusters); and Enhancing the environment (preserving, protecting and improving the quality of the coastal and marine environment and heritage; ecosystem monitoring; building resilience to the impacts of climate change)[954].

Within the same framework, two high-level Black Sea Stakeholder Conferences have been organised, the first in Bucharest (2014) and the second in Sofia (2015)[955]. The EU's expressly declared aim in this regard is to promote dialogue between all stakeholders, both public and private, to build their capacity and to support cooperative actions.

951 Black Sea - Identification of Elements for Sea Basin Cooperation (2014)… loc. cit., introduction.

952 Nevertheless, it should be pointed out that the starting point for the study is the acknowledged fact that cooperation between the EU and other Black Sea riparian countries have to date taken place largely on a bilateral basis, which is in contrast to EU initiatives in other geographic regions such as the Baltic, where actions were conceived from the beginning in a regional format and have therefore benefited from a significant institutional presence; cf. *ibid.*, p. 8; also see *ibid.*, p. 30.

The fact that EU cooperation with Black Sea regions countries is basically *bilateral* has in turn meant that multilateral initiatives have largely been *sectoral*, such as those which will be referred to below (INOGATE, TRACECA and PETrA).

953 *Black Sea - Identification of Elements for Sea Basin Cooperation* (2014)… *loc. cit.*, introduction.

954 *Ibid*.

955 For documents and minutes of discussions see: "Sustainable development of the blue economy of the Black Sea", *Enhancing marine and maritime cooperation*, Bucharest, Romania, 30 January 2014 (Summary of Presentations and Discussions); and *2nd Black Sea Stakeholders Conference Sofia*, 24th March 2015 Background paper (see http://ec.europa.eu/maritimeaffairs/events/2015/03/events_20150324_01_en.htm).

Mention should also be made of the publication of another EU study in November 2015, *Project in support to the development of Blue Economy and Integrated Maritime Policy in the Black Sea. Concept paper*[956]. This project concept is currently under discussion with the coastal countries and regional organisations[957]. It is, however, worth noting that its priorities do not include energy issues, the *leitmotiv* of the report being that the development of maritime and coastal tourism should be the central theme.

Furthermore, in 2007 the EU adopted a specific regional initiative, its *Black Sea Synergy*, which lays no claim to being a new policy, but rather a complementary initiative aimed at reinforcing existing ones, since the EU has either adopted or is a partner in various programmes affecting the Black Sea through a number of channels, and thus funded from a variety of sources (and, therefore, with a different status with regard to the various States, depending on their situation). Thus, before looking at *Black Sea Synergy*, it must be noted that the EU's institutions have adopted significant measures regarding the Black Sea in the framework of Turkey's pre-accession process, the ENP[958] and the Strategic Partnership with Russia. Similarly, *Horizon 2020*, the EU Framework Programme for Research and Innovation for 2014-2020, also contains a specific call for the Black Sea region. Although *Black Sea Horizon* does not specifically include energy issues amongst its explicit aims, any renewal energy project would fit perfectly with them, especially given the fact that its seventh and final stated sub-objectives is precisely to "identify

956 *Project in support to the development of Blue Economy and Integrated Maritime Policy in the Black Sea. Concept paper*, EU, 20 November 2015.

957 See http://ec.europa.eu/maritimeaffairs/policy/sea_basins/black_sea/index_en.htm.

The European Commission also supports the effort of a number of research institutes and public stakeholders from all Black Sea countries to compile all relevant data and create a digital map of the Black Sea seabed, including geology, habitats and marine life. A first version of the map is expected to be ready in 2016; *ibid.*

958 The *ENI Cross-Border Cooperation Programme* (CBC) (2014-2020), successor to the *Joint Operational Programme* (2007-2013), lies within the framework of the ENP and is thus financed through its funding instrument, although it should be borne in mind that most of the projects currently envisaged within its framework have no direct connection with the maritime sphere, being related instead with stimulating entrepreneurship and other aspects, etc. See European External Action Service and European Commission – DG for Development and Cooperation – EuropeAid, Programming of the European Neighbourhood Instrument (ENI) 2014-2020; Programming document for EU support to ENI Cross-Border Cooperation (2014-2020).

challenging thematic areas for mutual science, technology and innovation cooperation"[959]. And, finally, various initiatives affecting the Black Sea have been carried out through other cooperative programmes in the energy sphere in which the EU is a partner, such as INOGATE[960], TRACECA[961] and PETrA[962], although to date no significant initiatives having to do with blue energy appear to have arisen within them.

Black Sea Synergy, as we have already seen, is a regional initiative that came into being in 2007 with very broad goals that went far beyond maritime, energy, transport or environmental aspects, its cornerstone being the Commission's communication *Black Sea Synergy – a new regional cooperation initiative*. The "primary task" of this initiative would be "the development of cooperation within the Black Sea region and also between the region as a whole and the European Union", based on the common interests of the EU and the Black Sea region. The scope of its actions could extend beyond the region itself, since many activities are linked to neighbouring regions such as the Caspian Sea, Central Asia and South-Eastern Europe and such cooperation would therefore include "substantial interregional elements"[963]. The *Synergy* refers to a wide range of cooperation areas which in turn include other matters such as *democracy, respect for human rights and good governance*; *managing movement and improving security*; *"frozen" conflicts*; *fisheries*; *trade*;

959 See http://ec.europa.eu/maritimeaffairs/policy/sea_basins/black_sea/black-sea-horizon_en.htm.

960 INOGATE is a regional energy cooperation programme between the European Union, Turkey and various States from the former Soviet Union (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Ukraine, Uzbekistan and Tajikistan) that began in 1995 (Russia is not a member, although it enjoys observer status). Although its original focus was the oil and gas pipelines running from the Caucasus to the European Union, in 2004, as a result of the *Baku Initiative*, it widened its goals. This initiative was the outcome of the dialogue on energy cooperation between the EU and INOGATE member countries with a view to incorporating the following areas: enhancing energy security; harmonising legal and institutional frameworks in order to liberalise the energy market between partner countries; developing sustainable energy; and attracting investment towards energy projects of common and regional interest; see http://www.inogate.org/.

961 This is another international cooperation programme in the field of energy transport: the *Transport Corridor Europe-Caucasus-Asia*, in which the partners are the EU and 14 states from the Eastern Europe, Caucasus and Central Asia region; see http://www.traceca-org.org/en/home.

962 Black Sea Pan-European Transport Area.

963 COM (2007) 160 final, 11-4-2007, p. 3.

research and education networks; *science and technology*; *employment and social affairs*; and *regional development*, amongst others[964].

As far as energy is concerned, although from the very beginning reference was made to the need to "develop a clearer focus on alternative energy sources"[965], the approach comes from the underlying perspective of the region's strategic importance for EU energy security, in part because it is an energy-producing region but mainly because it is a transport corridor for conventional hydrocarbons. The Commission's proposal thus contemplates, on the one hand, ongoing improvement of the EU's relations with energy producer, transit and consumer countries, within the framework of a *dialogue on energy security* (with a view to promoting legal and regulatory harmonization through the Baku Initiative[966]), and on the other, to increase energy stability by constructing new energy infrastructure and upgrading the existing one[967]. The following year (2008), the European Parliament highlighted the importance of strengthening cooperation between the EU and countries in the region[968], whilst the Commission proposed, in its *Report on the first year of implementation of Black Sea Synergy*, the establishing of "sectoral partnerships" in the fields of "transport, environment [and] energy"[969]. In the same vein, the European Parliament made a second appeal to develop EU policies towards the region in a subsequent resolution (2011).

In 2015, the Commission and the High Representative of the European Union for Foreign Affairs and Security Policy adopted a *Joint Staff Working Document* titled *Black Sea Synergy: review of a regional cooperation initiative*, covering the years 2009-2014[970]. The document provides a review of the initiative and highlights a number of "lessons learnt" intended to inform the future development of the Synergy, given that the events in the Ukraine after the illegal annexation of the Crimean peninsula by the Russian Federation had a significant impact, leading to the suspension of all EU-funded projects in the affected area (with the exception of those in support of civil society) and a reassessment of relations with Russia[971].

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964 *Ibid.*, pp. 3 ff.

965 As well as energy efficiency and energy saving; *ibid.*, p. 5.

966 Referred to above, in the footnote on INOGATE.

967 COM (2007) 160 final…, *loc. cit.*, p. 5.

968 Resolution of 17-6-2008.

969 COM (2008) 391 final, 19-6-2008.

970 SWD (2015) 6 final, 20-1-2015.

971 Renewal of cooperation depends on fulfilment of the 2014 and 2015 Minsk Agreements

However, the 2015 Report on the review of *Black Sea Synergy* makes no mention whatsoever of any progress regarding renewable energies in general, not to mention marine ones. Reference is made to EU support for certain projects concerning specific hydrocarbon deposits, pipelines and means of transport, as well as to Moldova and Ukraine becoming members of the Energy Community and to the roadmap on energy cooperation with Russia until 2050[972], which is currently suspended as a result of recent events and will anyway need reviewing in the future. In this regard, it should be pointed out that the weakness of political determination among the region's countries, when taken in combination with recent conflicts, significantly increases the complexity of this scenario[973].

IV. The main challenges in the Black Sea basin that the European Union can help to overcome

The Black Sea needs a regional approach because the challenges it faces, one of them energy, are on the same scale. And energy, in turn, is linked to other aspects that can only be tackled properly from an international perspective and on a regional basis, such as transport and protection of the environment.

This is not the place to examine all the various challenges that the EU can help to overcome, since it would go far beyond the scope of the present work, which will only look at some of them, whilst acknowledging that the matter is indeed an extremely complex one. It is important to remember that in addition to the many challenges posed by marine renewable energies themselves (technology costs; transport infrastructure network costs, suitable port installations and specialised vessels; authorisation and licensing procedures; lack of subsidies; possible objections by the general public; technical problems such as connecting to the grid, etc.) there are two other problem areas that have to be considered. Firstly, the Black Sea basin is a particularly complex physical and geographic area in which a variety of different policies come into play, for example the EU's Integrated Maritime

by Russia; see European Parliament, *Report on the strategic military situation in the Black Sea Basin following the illegal annexation of Crimea by Russia*, A8-0171/2015, 21-5-2015; p. 8.

972 *Roadmap EU-Russia Energy Cooperation until 2050*, March 2013; see pp. 21 ff. on the subject of renewable energies in general.

973 *Report on the strategic military situation in the Black Sea Basin following the illegal annexation of Crimea by Russia … loc. cit.*, pp. 1, 4-5 and 11.

Policy, which involves international elements; development cooperation policy; the ENP; Turkey's pre-accession process; and certain complementary regional strategies, some of which contain interregional elements. Furthermore, all the above elements come together in a region that includes countries that are EU Member States and others that are not. Secondly, and as if the above were not enough, from a geopolitical standpoint the area is home to a number of major conflicts, some of them 'frozen' and others that have only recently arisen. The area is one in which simply attempting to establish cooperation between certain countries in any field whatsoever is a veritable challenge. Without prejudice to the foregoing, it is necessary here to point out a further set of issues that come into play.

The first point to note is that the *Black Sea Synergy* contains an excessive number of spheres of action: it tries to approach too many issues but, by neglecting to establish priority goals, focuses on none in particular, which amongst other implications could dilute its power[974]. Furthermore, the EU could also make more use of the *Black Sea Economic Cooperation* (BSEC), an organisation created in 1992 for the purpose of promoting cooperation in the regions and which could help to enhance its effectiveness to plan useful projects[975], particularly when we consider that one of its spheres o cooperation is precisely that of energy. Another interesting factor in this regard is that Russia (in common with other member countries) has always sought to maintain the organisation's openly non-political nature, rejecting any attempt to include other issues that might refer to territorial disputes or security matters[976].

974 A critique of the confusion created by the excessive number of possible areas of cooperation combined with the lack of any hierarchy between them can also be found in Devrim, D. and Grau. M., "El (in)hospitalario mar Negro: la imaginación occidental y la estrategia multilateral en una región en disputa", 13 *Quaderns de la Mediterrània*, 2010, pp. 244-251; p. 248.

975 Its Member States are Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, Romania, Russia, Serbia, Turkey and Ukraine; see http://www.bsec-organization.org/Pages/homepage.aspx.

976 See the press release on the declarations made by the Minister for Foreign Affairs in this regard; "Rusia apuesta por mantener el carácter apolítico de la Organización para la Cooperación Económica del Mar Negro (BSEC)", *Sputnik Mundo*, 10-12-2015 (http://mundo.sputniknews.com/economia/20151210/1054682272/rusia-bsec-apolitico.html).

Secondly, there is room for improving the consistency of the EU's actions. If *blue energy* is a key aspect of *blue growth*, which is in turn a key aspect of the EU's Integrated Maritime Policy, why is not given the same importance across all the EU's policies and strategies? Thus, for example, in the *Energy Union Package* contained in the Commission's 2015 Communication concerning a *Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy*, there is no specific section devoted to blue energy: in fact, it does not even deserve a mention[977], the principal focus being the diversification of supply as far as suppliers and transport routes are concerned in order to guarantee energy security. The most innovative vision of the future to appear in the document would appear to relate more to exploring the full potential of liquefied natural gas (LNG) rather than to renewable energies[978]. In a similar vein, the 2015 concept paper *Project in support to the development of Blue Economy and Integrated Maritime Policy in the Black Sea*, referred to earlier, in reality revolves around promoting tourism[979]. Much the same can be said of the most recent revision of the *Black Sea Synergy*, carried out in 2015 through the afore-mentioned *Joint Staff Working Document*, which also makes no mention whatsoever of blue energy and deals only with hydrocarbon deposits or recent and future gas pipeline projects[980]. In light of all the above, the EU could do worse in the future than to turn the spotlight on renewable energies in the various sea basins, of which the Black Sea is one, and thus by extension on blue energy, in order to improve consistency between all its different actions and instruments.

Another challenge which the EU can undoubtedly do much to help overcome is that of spatial planning, in order to plan when and where human activities take place at sea. Maritime spatial planning reduces conflicts, encourages investment, increases coordination not only between administrations in each country but also between countries, and protects the environment by helping with the early identification of impact and opportunities for multiple use of space[981]. After the adoption of the *Directive on maritime spatial planning*

977 COM (2015) 80 final, 25-2-2015.

978 *Ibid*., pp. 4 ff.

979 *Project in support to the development of Blue Economy and Integrated Maritime Policy in the Black Sea. Concept paper* (2015)… , *loc. cit*.

980 SWD (2015)… *loc. cit*., pp. 4 ff.

981 Cf. the European Commission's webpage on maritime spatial planning: http://ec.europa.eu/maritimeaffairs/policy/maritime_spatial_planning/index_en.htm (last

Member States are obliged to establish and implement a procedure for planning activities and uses in their marine waters[982], in which it therefore also becomes necessary to include all possible blue energy projects[983]. However, there is a lack of maritime spatial planning (MSP) in the Black Sea basin as a whole and in the maritime areas adjoining the majority of its riparian states, as highlighted in the 2014 report produced on behalf of the Commission, *Black Sea - Identification of Elements for Sea Basin Cooperation*[984]. It would therefore seem essential for the EU to also promote the adoption of national maritime spatial plans in other Black Sea riparian countries[985].

The third and final challenge is that of public-private partnerships, which are encouraged in a number of documents relevant to the topic of this text, such as the Commission's 2014 Communication on Blue Energy[986], the *Black Sea Synergy*, the Horizon 2020 programme[987] or the 2014 report produced on behalf of the Commission, Black *Sea - Identification of Elements for Sea Basin Cooperation*. The premise is obviously that companies are a vital element of society and their contribution to it is indispensable. And this is indeed the case: private sector intervention should clearly represent an obvious

accessed 20-2-2016).

982 Directive 2014/89/EU of the European Parliament and of the Council, 23-8-2014, establishing a framework for maritime spatial planning; *OJEU* L 257/135, 28-8-2014.

983 See O'Hagan, A.M., "Marine Spatial Planning (MSP) in the European Union and its Application to Marine Renewable Energy (WWW Document). International Energy Agency Ocean Energy Systems. Implement, 2012 (https://www.ocean-energy-systems.org/library/in-depth-articles/document/marine-spatial-planning-in-the-eu-and-its-application-to-marine-renewable-energy/) and Soininen, N., "Planning the Marine Area Spatially – A Reconciliation of Competing Interests?, *International Law-Making and Diplomacy Review 2012*, University of Eastern Finland – UNEP Course Series 12. University of Eastern Finland 2013, pp. 85–118.

984 *Black Sea - Identification of Elements for Sea Basin Cooperation* (2014) … *loc.cit.*, introduction.

985 On their importance in relation to marine renewable energies, see Wright, G. et al., "Establishing a legal research agenda for ocean energy", 63 *Marine Policy*, 2016, pp. 126-134; pp. 131 and 132.

986 COM (2014) 8 final, 20-1-2014, pp. 10 ff. See also: Commission Staff Working Document, Impact Assessment (Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions), *Ocean Energy: Action needed to deliver on the potential of ocean energy by 2020 and beyond*, SWD (2014) 13 final, Brussels, 20-1-2014; pp. 22 ff.

987 See SWD (2015)… *loc. cit.*, pp. 9 and 10.

advantage[988], a condition that in this case is fulfilled *ab initio*, since the role the play in matters of energy exploration and exploitation is an irreplaceable one. Nevertheless, there is still a dual challenge to be faced. The first of these is that it is hard to forge certain links. The *Black Sea - Identification of Elements for Sea Basin Cooperation* report highlights this issue when it says that even "[w]here co-operative platforms exist for the sea basin's key MEAs, they often do not bring together all relevant parties (public, private, academic partners)[989]. Secondly, the fact that such initiatives could involve States with differing degrees of implementation of reforms in areas such as good governance and the fight against corruption implies an additional challenge in that the utmost precautions must be taken in order to ensure that public-private partnerships are structured in the best way possible. In this regard, a key point that should always be kept in mind is that the first priority in energy exploitation is that it should be done in the general interest, including all citizens, and not only in that of the companies concerned.

V. Concluding remarks

Marine renewable energies, like all renewable energies in general, appear to be the ideal solution from a sustainable development perspective. The range of difficulties that blue energy can help to surmount is enormous. Indeed, as the twenty-first century progresses there is growing awareness that the energy potential of the seas and oceans may be so vast that it surpasses our current understanding.

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988 This is reflected in the views of experts in the subject, as well as in national plans and regulations, particularly from the development cooperation standpoint, taking into consideration, amongst other requirements, that of compatibility between objectives (e.g. in social, environmental and sustainable development terms), complementarity, the significant nature of the private company's contribution in terms of human and material resources, etc.; see, amongst others, Caplan, K., "Creating Space for Innovation: Understanding enablers for multi-sector partnerships", *Partnership matters. Current Issues in Cross-Sector Collaboration*, Issue 4, 2006, pp. 11-14; Dizon-Reyes, M.G.N., "Public-Private Partnership towards Growth & Development: Is it working?; 87 *Philippine Law Journal*, 2012-13, pp. 799-819; Vinnyk, O.M., "The Public-Private Partnership Agreements: Problems of Legal Regulation", *Law & Innovative Society*, Number 1, 2013, pp. 17-36; Tiganescu, A.M., "Legal aspects of the contract of public-private partnership", 5 *Contemporary Readings in Law and Social Justice*, Number 2, 2013, pp. 519-526.

989 *Black Sea - Identification of Elements for Sea Basin Cooperation* (2014) ... *loc. cit.*, introduction.

The conflicts in the Black Sea basin, whether recent or "frozen", condition a geopolitical scenario in which it is particularly difficult to construct any kind of regional cooperation. Some form of international collaboration, at least sub-regional in scope, will be a necessary pre-condition for establishing certain projects in the field of marine renewable energies in the area, as well as others relating to them. There is no magic formula for achieving such cooperation, but at the very least the EU should identify all the aspects in which it can help to pave the way. Similarly, it should also strive to achieve maximum coherence between its strategies, thereby maximising their effectiveness. Blue growth and blue energy should play a greater role in the European Union's projections and initiatives for all the sea basins within its scope, particularly that of the Black Sea.

14

LEGAL TREATMENT OF PROPERTIES FOUND IN WRECKED VESSELS ON BRAZILIAN SHORE

José Carlos de Magalhães

I. Introduction

The Brazilian shore was the stage of large-scale shipwrecks in the 16th to 19th Centuries, especially in areas where navigation was a challenge. Accounts of the period describe numerous incidents with ships that could not defeat the turbulent waters, causing many vessels to sink, some with precious cargo like brazilwood or metals such as gold and silver. The expeditions to the La Plata River left a mark of failed and lost initiatives.

Salvage of the Titanic and of the valuable properties found in it helped to arouse the companies' interest in locating and enriching from properties that might be found in sunken ships, lying on the bottom of the sea. That kind of venture demands high-risk investment, not only due to the possibility of the wrecked vessel not being located, but also, even if it is, of no valuable goods being found to cover the expenditures made. Those who are interested know the risk and are willing to face it.

There is, however, another risk that they are not willing to take, that is, the legal one; the possibility that, once the remains are found, at the expense of very high investment, the country authorities prevent them from reaping the benefits of the discovered properties.

It is therefore opportune to analyze the legal regime applicable to the remains of ships sunken in the past and that are found in the contiguous zone or in the exclusive economic zone of the sea that washes Brazilian shore. These remains may contain precious cargo, and salvaging them demands substantial investment, whether to locate or to exploit and recover them. Consequently, it must be examined what type of legal security supports these activities and the disbursement of significant investment, by definition of high risk, since the remains may not be successfully located.

While they are aware of this risk, the interested parties are not willing to assume others that may derive from legal interpretations and claims from government authorities on the ownership of the properties actually found.

The matter should be considered in the light of the Brazilian Constitution and of the United Nations Convention on the Law of the Sea, approved by Congress by means of Legislative Decree no. 5, of November 9, 1987, ratified on December 22, 1988, and enacted by means of Decree no. 1530, of June 22, 1995. It should also be taken into account the provisions of the Brazilian Civil Code and of the special laws that govern the matter.

II. The Union properties under the Brazilian Constitution

Sunken vessels belonged to their original owners. Over 100 years after the shipwreck, that ownership right disappeared, if for no other reason than because the company or individuals who owned it presumably ceased to exist as well, leaving no successors, which makes it *res nullius,* that is, a property with no owner. We should therefore examine the effects of such a situation.

Being the vessels on the Brazilian shore, we must analyze the legal regime established by the country and the applicable international conventions, ratified and in force in Brazil.

The Brazilian Constitution defines the Union properties in Article 20, and distinguish them from the properties of the individual States. Among these properties, in what is relevant for the matter at hand, are the natural resources in the continental shelf and in the exclusive economic zone, and

the territorial sea. The properties of the States are listed in Article 26 of the Constitution, which does not refer to those owned by the municipalities. The natural resources in the continental shelf and in the exclusive economic zone, as well as the territorial sea, are therefore properties of the Union. Remains of sunken ships are not classified as natural resources, but as artificial objects lying on the seabed. For a better understanding, we transcribe Article 20 of the Brazilian Constitution:

> "Article 20 – The following are properties of the Union:
>
> I – Those that currently belong to it and those that may be attributed to it;
>
> II – Untitled public lands essential for the defense of the borders, fortresses and military buildings, of the federal routes of communication, and for environmental conservation, as defined by law;
>
> III – The lakes, rivers and any streams in lands within its domain or that wash more than one State, that serve as boundaries with other countries, that extend into foreign territory or originate therein, as well as river bank lands and fluvial beaches;
>
> IV – The river and lake islands in bordering areas with other countries; the sea beaches; the ocean and coastal islands, excluding the areas referred to in Article 26, II;
>
> *V – The natural resources in the continental shelf and in the exclusive economic zone;*
>
> *VI – The territorial sea;*
>
> VII – The tide land areas and accretions;
>
> VIII – The hydraulic power potentials;
>
> IX – The mineral resources, including those of the subsoil;
>
> X – The natural underground cavities and the archaeological and prehistoric sites;
>
> XI – The lands traditionally occupied by indigenous peoples."

As we can see, from the list above, all properties attributed to the Union are natural resources, except for archaeological and prehistoric sites. The

legislator intended, therefore, to identify the different types of natural resources, that is, those that do not require human intervention, and list them among the assets of the Union.

Of course these properties do not exclude others, as mentioned in item I of the same Article 20, which refers to those already owned by the Federal Union and others that may be attributed to it. It could not be differently, since the Union may acquire assets not contemplated in the list of Article 20, which is the case of shares of mixed capital companies, movable assets, and real estate. In the case at hand, the rules that govern its ownership rights derive from the Brazilian Civil Code or from other statutory laws, not from the Constitution, which intended to identify the natural resources that belong to the Union, including among them *the natural resources in the continental shelf and in the exclusive economic zone, as well as the territorial sea*.

This criterion is used again in Article 26, which identifies the properties of the States, as follows:

> "Article 26 – The properties of the State include:
>
> I – The superficial or underground waters, flowing, emerging or in deposit, except, in this case, for those resulting from works performed by the Union, as provided by the law;
>
> II – The areas within its domain in ocean and coastal islands, except for those under the domain of the Union, of a Municipality, or of a third party;
>
> III – Those river and lake islands that do not belong to the Union;
>
> IV – Those untitled public lands that do not belong to the Union."

We can see that the constitutional criterion here was also to identify properties or natural resources attributed to the States, which most obviously does not exclude those acquired pursuant to the terms and under the conditions established in statutory laws.

These provisions lead to the conclusion that, other than the properties listed in the Constitution, both the Union and the States only own those assets that they may acquire, be it by expropriation, upon the payment of indemnification, or by purchase or any other form of acquisition under the statutory laws.

III. The Public Properties [990]

Among the provisions of the statutory laws that govern the ownership of properties by the Federal Union, the States, and the Municipalities, those of the Brazilian Civil Code stand out, whose Articles 98 to 103 distinguish public properties, which belong to national government entities, from private properties. The law classifies as public properties those of common use of the people, such as seas, roads, streets and squares, those of special use, like the buildings destined to a service or establishment of the public administration, and those in the public domain, i.e., owned by government entities.

While the Constitution identifies certain natural resources as belonging to the Union, the Civil Code elects the public use criterion – for example, seas, roads and others – distinguishing them from special use properties, which, although public, are owned by government entities. They are different kinds of properties, built or acquired by the Public Administration and made part of the estate of the Union, States, or government entities. The Constitution

990 The Brazilian Civil Code regulates and defines public properties in Articles 98 to 101:

Article 98. Public properties are those in the national domain that belong to the national government entities; all others are private, to whomever they may belong.

Article 99. The public properties are:

I – Those of common use of the people, such as rivers, seas, roads, streets and squares;

II - Those of special use, such as buildings or lands destined to a service or establishment of the federal, state, territorial or municipal public administration, including their independent government agencies;

III - Those in the public domain, owned by the government entities, such as those object of a personal or *in rem* right, of each of those entities.

Sole paragraph. Except as otherwise provided by the law, properties that belong to government entities structured as private entities are deemed in the public domain.

Article 100. Those properties of common use of the people and those of special use shall be inalienable for so long as they maintain that qualification, as provided for by the law.

Article 101. The public properties in the public domain may be disposed of, subject to the requirements set out in the law.

includes among the Union's assets the natural properties mentioned in it, and the Civil Code, those properties acquired as a result of some legal instrument, such as roads, streets and squares. In both cases, the criterion relates to ownership, that is, identification of the public ownership rights and their use by the people in general.

We can see, therefore, that the remains of ships sunken on Brazilian shore are not comprised in the list of the Civil Code, since they are neither for the people's common use nor destined to a service or establishment of the public administration. These properties have never belonged to the Union or to Brazilian public entities. In view of the foregoing, we must resort to other statutes that govern the matter and the treatment afforded by them.

IV. The United Nations Convention on the Law of the Sea

Since the Brazilian Constitution includes the continental shelf and to the territorial sea in the list of the properties that belong to the Union, it is essential to analyze the international instruments that govern these properties, given the repercussions on the realm of rights and interests of other foreign States. Indeed, inasmuch as the Constitution mentions the continental shelf, the exclusive economic zone and the territorial sea *tout court*, without any qualification, we must resort to the United Nations Convention on the Law of the Sea, signed by Brazil[991], in order to analyze the international rules on the matter. In addition to the Convention, we must also examine Law no. 8617, of January 4, 1993, which governs the territorial sea, the contiguous zone, the exclusive economic zone, and the continental shelf.

1. The territorial sea

The matter is addressed right on Article 2 of the Convention, which explains that the sovereign power of a coastal State extends beyond its land territory to an adjacent belt of sea, described as the territorial sea. This sovereignty encompasses the air space over the territorial sea as well as its bed and subsoil. Since the Constitution includes these spaces among the Union's assets, it covers both concepts: sovereignty and property rights. In other words, by exercising its sovereignty on those areas, it made them part of the Union's assets.

991 - Ratified by Congress and enacted by means of Decree no. 1530, of July 3, 1993, the Convention is in force in Brazil.

Article 2(3) of the Convention provides that sovereignty is exercised subject to the Convention and other rules of international law. We can already see an impropriety here, which is to qualify the sovereign power, limiting it to the guidelines established by the Convention and to the international law. The old concept of sovereignty is now ill-adjusted to the reality of the international relations, because, since the States interact with numerous international organizations and with *jus cogens* norms, they are no longer sovereign in the old sense, i.e., that there was nothing above them. This is no longer so, although Article 1, I of the Constitution includes sovereignty among the principles on which the Republic is founded.

In any event, leaving aside this discussion for now, we should point out that the Convention grants to each State, in Article 3, the right to determine the breadth of its own territorial sea up to a limit not exceeding 12 nautical miles, measured from baselines determined in accordance with the Convention. That right was exercised by Brazil by means of Law no. 8617, of January 4, 1993, which reaffirms the concept of Brazilian sovereignty on the territorial sea and the air space, and delimits it in 12 nautical miles of width. By doing so, it modified the prior regime that, by means of a unilateral act, that is, Decree-law no. 1098/70, extended the breadth of the territorial sea to 200 miles[992]. Differently from the Constitution, the law does not refer to ownership rights, mentioning only Brazilian sovereignty on the territorial sea, the superjacent air space, and its bed and subsoil. However, the constitutional provision that grants to the Union ownership of the territorial sea, not only sovereignty on that area, prevails.

In fact, the Constitution went beyond when it included the territorial sea among the Union properties, thus adopting a concept of ownership, broader than the political and limited concept of sovereignty. In other words, by exercising its sovereign power, it incorporated the territorial sea to its assets, with internal and external effects. The territorial sea belongs to the Union, is owned by it, which is different and broader than having sovereignty on that area. The Convention authorized the exercise of the country's sovereign power on the territorial sea and the Constitution, by doing so, integrated it to the Union's assets, combining two concepts in a single one: sovereignty and ownership of properties. Sovereignty is not to be confused

992 When it extended the breadth of the territorial sea to 200 miles, by means of a domestic unilateral act, Brazil took the same conduct previously taken by American President Truman, when he declared that the continental shelf of the United States reached 200 nautical miles, which until then was not internationally recognized.

with ownership; the State has sovereign power on its territory, ownership of which may belong to third parties, titleholders of such right, whether individuals, public entities, or yet national or foreign legal entities. All these titleholders are subject to the sovereign power of the country, which has the prerogative to regulate the exercise of those rights.

Sovereignty is therefore the exercise of a political power, and only in this aspect it intermingles with jurisdiction, that is, the power to declare the law in a given territory and on certain persons and relations. The Constitution could have defined the Union's sovereignty on the territorial sea without integrating it to its assets, just as it does with the land territory, on which it exercises sovereign power but not ownership rights, except in those areas referred in the Constitution itself – such as untitled public lands, tide land areas, mineral resources, and others listed in Article 20.

2. The contiguous zone

The Convention contemplated, in addition to the territorial sea, a contiguous zone not to extend beyond 24 nautical miles, in which the State is allowed to exercise control to avoid breach of its customs, fiscal, immigration, or sanitary laws and regulations, and punish any infringers. Article 33 of the Convention reads as follows:

> "Article 33 1. In a zone contiguous to its territorial sea, described as the contiguous zone, the coastal State may exercise the control necessary to:
>
> a) Prevent infringement of its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea;
>
> b) Punish infringement of the above laws and regulations committed within its territory or territorial sea.
>
> 2. The contiguous zone may not extend beyond 24 nautical miles from the baselines from which the breadth of the territorial sea is measured."

It may be inferred from the above provision the intent to offer to the coastal State the possibility to exercise control in a maritime area located beyond its territorial sea, that is, outside its territory, in order to prevent any

breach of its laws. This was influenced by the Hovering Laws of the United Kingdom, which, in the 18th Century, allowed customs control of ships originating overseas, outside the territorial waters of a certain State. The same conduct was adopted by the United States in the 1920's and 1930's to inhibit infringement of its laws against alcohol consumption. That country approved the Anti-Smuggling Act on August 5, 1935, in which it declares that ships in high seas, in an area close to the territorial sea, that introduce or may introduce illegal merchandise in the country are subject to its domestic customs controls[993].

The contiguous zone, as we can see in the transcribed provision, is not within the maritime territory of the coastal State, which, however, exercises jurisdiction on it with control and prevention purposes, in order to avoid infringement of its laws.

In addition to that rule, the Convention on the Law of the Sea provides, in Article 303, for the coastal State's duty to protect the archaeological and historical objects found at sea, and cooperate for this purpose. With that intent, it allows it to assume that their removal from the seabed in the contiguous zone without its authorization is an infringement within its territory or territorial sea of the laws and regulations referred in Article 33. It makes it clear, however, that this provision does not affect the rights of identifiable owners, the law of salvage or other rules of admiralty, or laws and practices with respect to cultural exchanges[994]. This qualification shows a distinction between the exercise of the jurisdiction by the coastal State and the respect it must have for the ownership rights on items found in the contiguous zone.

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993 On this topic, *see* HERBERT BRIGGS, *The Law of Nations*, 2nd Edition Appleton Century-Fox, New York, p. 371/377, and NGUYEN QUOC DINH, PATRIK DAILLIER and ALAIN PELLET, *Droit International Public,* 5th Edition, LGDJ, Paris, 1994, p. 1078.

994 Article 303 of the Convention reads as follows: "Article 303 – 1. States have the duty to protect objects of an archaeological and historical nature found at sea and shall cooperate for this purpose. 2. In order to control traffic in such objects, the coastal State may, in applying article 33, presume that their removal from the seabed in the zone referred to in that article without its approval would result in an infringement within its territory or territorial sea of the laws and regulations referred to in that article. 3. Nothing in this article affects the rights of identifiable owners, the law of salvage or other rules of admiralty, or laws and practices with respect to cultural exchanges. 4. This article is without prejudice to other international agreements and rules of international law regarding the protection of objects of an archaeological and historical nature."

The Constitution is silent about the contiguous zone, but Law no. 8617, of 1993, defines it consistently with the Convention, acknowledging the country's jurisdiction for the abovementioned purposes. Accordingly, the contiguous zone is not part of the Union's assets, and corresponds to the first belt of sea with 24 nautical miles of breadth, which precedes and is part of the exclusive economic zone of the coastal State.

3. The Exclusive Economic Zone

While the Constitution attributed to the Union ownership rights on the territorial sea, it also limited those rights to the natural resources in the continental shelf and in the exclusive economic zone – and therefore in the contiguous zone. Although under the Union's jurisdiction, these areas do not belong to it, but only the natural resources found in them. Also in this respect we must examine the international norms. It is Article 55 of the Convention on the Law of the Sea that provides the definition:

> "Article 55 – The exclusive economic zone is an area beyond and adjacent to the territorial sea, subject to the specific legal regime established in this Part, under which the rights and jurisdiction of the coastal State and the rights and freedoms of other States are governed by the relevant provisions of this Convention."

The breadth of the exclusive economic zone is 200 nautical miles from the baselines from which the breadth of the territorial sea is measured (Article 57). And also there the State exercises sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil,. The same applies to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds. These "sovereign rights" are therefore restricted to the natural resources, chiefly to the fishing regime, which is incumbent on the coastal State to establish.

In addition to sovereign rights, the Convention grants to the coastal State jurisdiction on the construction and use of artificial islands, installations and structures, marine scientific research, and protection and preservation of the marine environment. Law no. 8617/93 governs the matter in Brazil, in accordance with the Convention.

4. The continental shelf

It is also the Convention on the Law of the Sea that provides the concept of continental shelf, defining it in Article 76:

> "Article 76 – The continental shelf of a coastal State comprises the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance."

Similarly to the exclusive economic zone, the State exercises sovereign rights on the continental shelf for purposes of exploring and exploiting its natural resources (Article 77). Item V of Article 20 of the Brazilian Constitution made these resources part of the Union's assets. The sovereign rights, as referred to in the Convention, may extend up to the fixed points comprising the line of the outer limits of the continental shelf on the seabed, drawn in accordance with paragraph 4(a)(i) and (ii) of Article 76, at a distance not exceeding 350 nautical miles from the baselines from which the breadth of the territorial sea is measured, even in the case of the submarine ridges (Article 76 (5) and (6) of the Convention).

The sovereign rights of the coastal State are exclusive even if it does not explore them, so that any interested third parties must seek authorization and written consent to explore the continental shelf resources (Article 77(2)). These are the 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.

As pointed out above, the Brazilian Constitution, when regulating the exercise of the sovereign power on the natural resources in the continental shelf and in the exclusive economic zone, included them among the assets of the Union, owned by it. In doing so, it did not dissent from the rule set out in the Convention, which grants it sovereign rights for purposes of exploring living and non-living natural resources, even if it does not in fact explore them or does not have the economic or technical ability to do so. In practice, what the Convention establishes is the coastal State's ownership right on the

natural resources in the continental shelf, camouflaged under the concept of sovereignty.

Just as the contiguous zone and the exclusive economic zone, it is also Law no. 8617/93 that defines it, corroborating the international standard approved by the Convention.

V. State sovereignty and international jurisdiction

At this point, it is appropriate distinguish the sovereignty that the State exercises on its land, air and maritime territory from the jurisdiction, that is, the authority it has to enact the law, limited by the jurisdiction determined by the international law. Another distinction must be made between sovereignty and jurisdiction, on one hand, and, on the other hand, the Brazilian State's ownership right defined in the Constitution.

Sovereignty is a political concept inaugurated with the Peace of Westphalia, in 1648, a milestone of the birth of the international order that still prevails. There used to be no other authority above them, not even the Pope, who, until at that time, had a religious power that overruled even the kings', princes' and local lords' authority. It was the Pope who crowned the kings, which was a symbol of the divine power invested in him, always exercised by means of God's representative on earth. The king's authority derived from God – not from the people[995]. The States' sovereignty meant the absence of a higher power, and extended throughout their territory. It is not by accident that the International Law, evolving from the concept developed by its founders Grotius**,** Vitoria, Suarez and others, have taken new features from that moment on, when the international relations started to develop in a balanced environment, governing the coordinate relations among sovereign entities not subject to any power.

The development of the International Law since then culminated, in the 20th Century, in a deep change in the international order. The States started to coexist with international organizations and other international actors, among them the non-governmental organizations. More than that, the States changed their old character of organizers of public services to intervene in

995 It was Article 3 of the Declaration of the Rights of Man and of the Citizen that made the new order clear, as it provided that: "The principle of all sovereignty resides essentially in the nation. No body nor individual may exercise any authority which does not proceed directly from the nation."

the national economic process. The emergence of the concept of economic development as one of the primary goals of the nations led the economy to the foreground of the international relations, leaving in the background the religion and different cultural values. The creation of the Economic and Social Council as one of the permanent bodies of the United Nations is a reflection of this new set of goals that influence the international relations, based on economy and development. The parameter for the countries' classification has become the degree of the economic development and no longer the religious faith, except for those that are part of the Muslim Arab world, in fierce dispute with Israel.

On the other hand, the effects of World War II have placed the human being on the forefront of the international order, in replacement for the States' old primacy, with absolute sovereign power in the domestic realm. The Universal Declaration of Human Rights, of 1948, has become the symbol of this new order, based on the fundamental rights of the human person, as identified in it. It contains rules classified as *jus cogens*, to be observed by the States as mandatory rule[996].

The change in the States' structure, now subject to the international order and to peremptory principles, values and norms, reflects also on the partial loss of the immunity of jurisdiction they had always enjoyed. The principle *par in parem non habet jurisdicionen* ceased to apply when the State became an agent of development and an active participant in the domestic and international economic relations. Nowadays the State no longer enjoys absolute immunity of jurisdiction, limited to actions within its political jurisdiction only when it acts in such capacity and no longer in just any circumstance. Brazil has resisted such evolution, against all international evidence – which included domestic laws of the United States and of the United Kingdom, which restricted this recognition to the events described in them – and finally recognized, although on incorrect grounds, the relative character of that immunity in a decision of the Federal Supreme Court rendered in the 1990's.

This evolution shows that the old concept of sovereignty survives more as

996 Article 53 of the Vienna Convention on the Law of Treaties provides that: "A treaty is void if, at the time of its conclusion, it conflicts with a peremptory norm of general international law. For the purposes of the present Convention, a peremptory norm of general international law is a norm accepted and recognized by the international community of States as a whole as a norm from which no derogation is permitted and which can be modified only by a subsequent norm of general international law having the same character."

political rhetoric than as a real fact, or, as pointed out by Patrick Daillier and Alain Pellet, "this expression (sovereignty) is for easiness of language, more comfortable than accurate."[997] In fact, it has been replaced by the concept of jurisdiction, that is, the authority to state the law in a certain area and for certain relationships and persons. The Convention on the Law of the Sea indiscriminately uses both terms to classify the same power. According to its Article 2 "the sovereignty of a coastal State extends, beyond its land territory," and, in Article 2(3), that the "sovereignty over the territorial sea is exercised subject to this Convention and to other rules of international law. " This is a limitation of the notion of sovereignty. It denatures it with limitations that are incompatible with its formal concept. Among them is the right of innocent passage through the territorial sea (Article 17), which cannot be denied by the coastal State except as provided in the Convention (Article 24). Neither can the coastal State levy charges upon foreign ships by reason only of their passage through the territorial sea (Article 26). This limitation on the "sovereignty" is revealed also in the criminal jurisdiction, which cannot be exercised by the coastal State on board a foreign ship, except in the events provided for in the Convention (Article 27). That is to say that the coastal State's sovereignty on the territorial sea is relative, subordinate as it is to the canons of the Convention on the Law of the Sea.

On the other hand, when it addresses the exclusive economic zone, on which the coastal State does not exercise "sovereign power," the Convention uses the expression "jurisdiction". Article 55 grants jurisdiction rights to the coastal States. However, it still uses the terms sovereignty for matters related to exploring and exploiting, conserving and managing the natural resources (Article 56, "a"), and "jurisdiction," in subsection ©, to recognize the power of States to regulate the establishment and use of artificial islands, research, and protection of the marine environment. It is difficult to see the difference between both terms as applied in the Convention. As a matter of fact, jurisdiction and sovereignty are two sides of the same coin: sovereignty characterized as independence with respect to any other States and the exercise of the political power on a certain area, and jurisdiction as the legal power to enforce its rules in and out of its territorial base.

When the State submits to its own jurisdiction acts and facts committed outside its territory, including the ones occurred in other countries, it

997 NGUYEN QUOC DINH, PATRICK DAILLIER and ALAIN PELLET, *Droit International Public*, LGDJ, 5th Edition, 1994, p. 444.

exercises the so-called extraterritorial jurisdiction, based on principles recognized by the International Law such as nationality, protection of the State, passive personality, among others. That is the case also in those events contemplated in the Convention on the Law of the Sea in connection with maritime areas outside the State territory.

The distinction between the concepts of sovereignty, which excludes any intervention within the State territory, and jurisdiction, becomes clear when one considers the possibility of extraterritorial jurisdiction. A State can exercise extraterritorial jurisdiction, that is, impose its law to certain facts and acts committed abroad. The same is not true with respect to its sovereignty, which is restricted to its land, maritime, and air territory. There is no "extraterritorial" sovereignty, but there is extraterritorial jurisdiction. The former is restricted to the State territory; whereas the latter can extend to the international domain and reach facts, persons and properties located in foreign States, based on principles acknowledged by the international law, such as the already mentioned principle of nationality.

If, on the one hand, the jurisdiction can extend beyond the State's territorial boundaries, applying its power to govern acts, relations and persons elsewhere, the range of the sovereignty, on the other hand, is reduced to its territory. In fact, the development of the international relations, which subjects the States to complying with international norms within their territorial area, reduces their power to fully exercise it. In other words, despite the State's domestic sovereignty and, consequently, its independence in relation to the other States, it no longer has the former ability to freely issue internal laws that may breach principles and values already established by the international order, especially those classified as *jus cogens.*

Article 2(7) of the UN Charter reflects the concept, valid at the time of its approval but that may be deemed superseded by the events that followed the creation of that international organization:

"2(7) – Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any State or shall require the Members to submit such matters to settlement under the present Charter; but this principle shall not prejudice the application of enforcement measures under Chapter VII."

We should note that the provision mentions "domestic jurisdiction," not sovereign power, and does not specify which matters fall within that

classification. They tend to be fewer and fewer, to the extent that the globalization of the economy – and, consequently, the far-reaching scope of the Law – tend to cover a large specter of facts and acts. As a matter of fact, they depend on the evolution of the international relations and therefore of the new configuration of the international order. This is an essentially relative concept, as the Permanent Court of International Justice referred to the States' power to determine the nationality of their own citizens[998]. In this respect, the changes and even the failure of the Calvo Doctrine, adopted by some South American countries in the late 19th Century and in part of the 20th Century, is an evidence of that development. That doctrine denied the right to diplomatic protection to foreigners in the territory of the States, as they should be treated the same way of its nationals. Nowadays, the State must respect nationals' human rights, subject as it is to principles and values acclaimed by the international community. The evolution of the international relations has made it clear that the States no longer enjoy the freedom to exercise their free will on the rights of their nationals and foreigners within their territory. Their professed sovereignty is not above the internationally acclaimed human rights.

We may say, therefore, that sovereignty and jurisdiction presently mean the State's prerogatives to declare the law in its land, air and maritime territory, within the limits imposed by the international order, that is, by the principles and values that govern the international relations.

VI. Sovereignty, jurisdiction, and ownership rights

When the Brazil included among its properties the territorial sea and the natural resources in the exclusive economic zone and in the continental shelf, as defined in the Convention on the Law of the Sea, in addition to others acquired on other grounds, it did not mean to reach goods not comprised in the strict list provided in the Convention. In fact, the Brazilian Constitution attributed to it ownership rights solely on the territorial sea, on the natural resources in the exclusive economic zone and on the continental shelf, alongside with other natural resources listed in Article 20 and non-natural resources already owned or that may be acquired by it. We should note that this ownership right does not include the exclusive economic zone, but only the natural resources found in it – namely, the marine fauna and flora. However the territorial sea is one of the properties of the Union and part of

998 Decision on the Tunis and Morocco nationality decrees.

its territory, just as the natural resources in the continental shelf. They are owned by the State, therefore part of its assets. The Brazilian State therefore has sovereign power, exercises jurisdiction, and owns those properties, combining in them, consequently, the three prerogatives.

Sovereignty and jurisdiction, as we have seen above, are not to be confused with ownership rights. They imply the power to enact laws to govern relationships and properties subject to the State, within the limits established by the international law, making them effective within the domestic scope, that is, within the State territory. Ownership rights, on the other hand, means the owner's power upon properties, in accordance with the national legal order. It results in the owner's ability to use, enjoy, dispose of, and recover the properties from anyone who may be unfairly holding them, as provided for in Article 1,228 of the Brazilian Civil Code.

In the exercise of the jurisdictional power, the State may establish conditions related to the exercise of the ownership rights, submitting them to certain rules. The individual has ownership rights on real estate located within the State territory acquired under the domestic laws. This is the individual's right, not the State's, as ensured by item XXII of Article 5 of the Brazilian Constitution. The home, although under State jurisdiction, "is the inviolable refuge of the individual, and no one may enter without the resident's consent, except in cases of flagrant crime or disaster, or to provide relief, or, during or day, by court order" (Article 5, XI of the Brazilian Constitution). These are two of the fundamental rights that cannot be suppressed by the State, in addition to the others listed in Article 5 of the Constitution. However, in order to build a house on his or her own land or even to make renovations, the owner is subject to the laws and regulations imposed by the State. The individual owns the property, but its use is regulated by the State. Here lies the sharp difference between ownership rights and jurisdiction and sovereignty.

On the other hand, the sovereignty mentioned in item I of Article 1 of the Brazilian Constitution as one of the foundations of the Republic does not interfere with the property rights of a person that cannot be violated by the State. Beyond its borders, the country may exercise extraterritorial jurisdiction in those situations recognized by the International Law and, in what respects the maritime area, subject to the provisions of the Convention on the Law of the Sea.

In view of the considerations above, we will now examine the legal treatment of the properties found in remains of vessels sunken on Brazilian shore and located in the exclusive economic zone.

VII. Ownership of discoveries under the Brazilian Civil Code

Remains are remnants of divided, ruined properties; something that remains or is left. Wreckage, on the other hand, is the act of wrecking or the state of being wrecked, or the remains or fragments of something that has been wrecked[999]. Ship remains are therefore what is left from sunken and non-salvaged vessels. In time, if they are not recovered, they become properties without an owner as a result of their abandonment, which is one of the causes of loss of title, as provided for in Article 1,275 of the Brazilian Civil Code[1000]. If the remains are ship fragments scattered in the sea or on the bottom of the ocean, the goods that it carried may be undamaged, if well stored, for example, in salt water-resistant safes. In such case, they will not be remains, but movable assets that may have a considerable value and which may be deemed abandoned by their former owners, unable to locate them on the bottom of the sea.

The remains are of the vessel, not of the goods transported by it and that withstood over time. They must be governed by the rules on abandoned properties, which may be appropriated by whomever finds them, as provided for in Article 1,263 of the Brazilian Civil Code:

"Article 1,263 – Whoever appropriates a property that has no owner acquires title thereto, occupancy of which is not prevented by law."

If the goods are located before the owner gives up looking for them and are rescued by third parties, they will still be the owner's property, because they have not been abandoned. The rules on occupancy do not apply in that case, as it presupposes that the good has no owner. However, if passes a long time and the owner desisted from recovering them, abandonment is characterized. They become *res nullius,* things without an owner, title to which has been lost due to the relinquishment of their recovery, which is one of the causes for loss of ownership.

In his comments on Article 592 of the former Civil Code, whose wording

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999 http://www.dictionary.com/browse/remains?s=t; http://www.dictionary.com/browse/wreckage.

1000 Article 1,275: In addition to the causes considered in this Code, ownership is lost:

…

III – Due to abandonment;

was almost identical as the current Article 1,263, Clovis Beviláqua explained that "*Occupancy is to take possession of something that does not have an owner with the intent of acquiring it. Or, to be more strict to the language of the law, it is the original form of acquisition, by means of which someone takes possession of a property without an owner*"[1001]. A thing that does not have an owner is *res nullius*, subject to being appropriated by whomever finds it with the intent of acquiring it. It is the case of properties found in vessels sunken more than 100 years before in an undetermined location and abandoned by the former owners, including because of the impossibility to locate them.

If among the transported properties are safes containing precious metals, one must determine whether the rules on treasury discoveries apply. It is also the Brazilian Civil Code that governs the matter, in Article 1,264:

"Article 1,264 – The old deposit of precious things, hidden and whose owner is unknown, shall be divided in equal parts between the owner of the building and the person who accidentally finds the treasury."

The provision presupposes accidental discovery in a third party's property, and results in the rule of the division between the person who has found it and the owner of the property where it was located. In the case of movable assets – such as safes with valuable contents found in remains of vessels wrecked in waters of the contiguous zone or of the exclusive economic zone, under Brazilian jurisdiction – the rule that must prevail is the aforementioned occupancy rule, as they are not owned by anyone. That does not apply to treasury discoveries, which presupposes that they have been found in the property of a certain and identified owner, which justifies the rule of the equal apportionment between the owner and the person who discovered them. We should note that the rule on treasury discovery in a building concerns accidental, rather than intentional discoveries.

The deliberate action to search seabed to locate wrecked vessels and properties that may be found in them cannot be characterized as an accidental act, but are an intentional one instead. Accordingly, the concept of treasury discovery does not apply here, but rather occupancy of *res nullius*, a property that does not have an owner, referred to in the above transcribed Article 1,263. Whoever finds it becomes the owner, as provided in the norm.

1001 CLOVIS BEVILÁQUA, *Código Civil dos Estados Unidos do Brasil,* historical edition, Rio publishers, p. 1068.

VIII. Brazilian Law no. 7542, of September 26, 1986

The Civil Code governs normal and ordinary situations; we must now examine its applicability to properties located outside the national maritime territory and in the exclusive economic zone.

Law no. 7542, of September 26, 1986, governs the research, exploitation, salvage and demolition of sunken, submersed, stranded and lost things or properties in waters under national jurisdiction, on tideland areas and accretions and on riverbank lands as a result of casualty, jettison or perils of the sea.

According to Article 4 of the Introductory Law to the Brazilian Civil Code[1002]. a special statute, it does not supersede or is superseded by a general one. As Law 7542 was enacted in September 26, 1986, it was not revoked by the current Civil Code, that came into effect in 2002. Law 7542 govern, among other matters, the salvage of sunken, submersed, stranded and lost things or properties in waters under national jurisdiction. It is therefore a special statute, in contrast to the general ones of the Civil Code.

In addition to that, the contents of some of its provisions are consistency with the subsequent 1988 Constitution. Indeed the law provides that sunken properties located in maritime areas under Brazilian jurisdiction are properties of the Union. Article 32 reads as follows:

"Article 32 – Sunken, submersed, stranded and lost things or properties in waters under national jurisdiction, on tide land areas and accretions and on river bank lands as a result of casualty, jettison or perils of the sea occurred more than twenty (20) years before the publication date of this Act, in connection with the responsible parties do not apply for research authorization for purposes of salvage, demolition or exploitation within one (1) year from the date of publication of this Act, shall be automatically deemed incorporated into the Union's domain.

Paragraph one. The remains of wooden hull ships sunken in the 16th, 17th and 18th Centuries shall be deemed automatically incorporated into the Union's domain irrespective of the one (1)-year period set out in the main section hereof."

1002 Article 4 – The law is only revoked or derogated by another law; but the special provision does not revoke the general one and the general provision does not revoke the special one unless it refers to it or to its subject matter, changing it explicitly or implicitly.

We can see, therefore, that the law provides for the incorporation into the Union's domain of remains of ships sunken in the 16th, 17th and 18th Centuries, whereas the main section of the provision refers to the sunken properties – which are not to be confused with the remains of the vessels where they were found. The wording is inaccurate, as it refers to "sunken ships" in the referred to periods, without indication of which ones and where, all leading to a generality and supposition incompatible with the clarity expected from any statute. Besides, the incorporation determined by the law would amount, in fact, to an appropriation that conflicts with the Brazilian public policy, restored by the Constitution, approved after that law was enacted – which law was still fruit of the authoritarian military rule inaugurated in 1964. When there is public interest in a certain good, item XXIV of Article 5 of the Brazilian Constitution provides for expropriation proceedings with grounds on need or public utility or due to social interest, always upon prior and fair compensation. There is no appropriation, except for events of confiscation of assets by virtue of a criminal wrong.

As seen above, the Brazilian Constitution, of 1988, does not include in the list of the Union properties those mentioned in this statute, but only those it specifically mentions in Article 20. Since the Constitution was enacted in 1988 and the statute, in 1986, we may conclude that the statute could not survive thereafter, considering that, when it refers to the Union properties, it does not mention the ships sunken in earlier Centuries.

In addition, we should point out that such statute was published before Congress approved the Convention on the Law of the Sea, on November 9, 1987, by means of Legislative Decree no. 5, ratified on December 22, 1988 and object of enactment Decree no. 1530, of June 22, 1995. The Legislative Decree is a law, as provided for in Article 59, VI of the Brazilian Constitution, and the enactment Decree made its text public. Accordingly, being it the domestic law in force since the enactment of the acts that ratified it, the Convention on the Law of the Sea results in that the reference made by the law to waters under national jurisdiction cannot comprise the contiguous zone and the exclusive economic zone, subject to national jurisdiction for the limited purposes set forth thereby.

Indeed, the Convention granted to the coastal State jurisdiction on the exclusive economic zone *for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for*

the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds (Article 56(a)).

Being the properties outside the national territory – and given that the contiguous zone and the exclusive economic zone are not part of it, but only the natural resources found in them, according to Article 20, V of the Brazilian Constitution – obviously the appropriation determined by the law must be interpreted consistently with Article 55 of the Convention on the Law of the Sea, ratified by Brazil.

The incorporation referred by it can only concern properties found in the territorial sea, which is part of the Brazilian territory and is one of the properties of the Union, as provided for in Article 20 of the Constitution. Properties found outside the territory cannot be incorporated to the State, unless by regular expropriation and due compensation. As stressed above, if the jurisdiction may have an extraterritorial character, reaching acts, persons and relationships abroad, by virtue of universally accepted principles like nationality, among others, the same does not happen with respect to the sovereign power, which is restricted to the State's land, maritime and air territory. Although the coastal State has jurisdiction, granted by the international order, to control and authorize research and other acts in areas outside its maritime territory, that authorization ends right there and does not extend to or is to be confused with sovereign rights.

IX. Recovery of sunken properties: authorization of the coastal State

Having interpreted Law no. 7542/86, according to the provisions of the Convention on the Law of the Sea and of the Brazilian Constitution, we must still consider that the country has jurisdiction on the contiguous zone. Such zone extends up to 24 nautical miles beyond the territorial sea, as provided for in Article 33 of the Convention, and on the exclusive economic zone. This is a zone outside the territorial sea and, consequently, is not part of the State territory. However, Article 303 of the Convention provides that it is its duty to protect the archaeological and historical objects found at sea, and cooperate for this purpose. For that end, the coastal State may consider that unauthorized removal of such properties from the contiguous zone is an infringement committed in its territory or to its territorial sea. That is to say, the removal of these objects requires prior authorization of the coastal State.

The contiguous zone is an extension of the territorial sea, to which it is adjacent, so that there is a natural interest – and the Convention goes even beyond: it provides for the duty – in protecting archaeological or historical objects. Humankind has a common interest in this protection, vested in the coastal State by the international community. It is its responsibility to authorize the removal of those objects from the seabed, just as if they were in its territory.

The provisions of Article 303 of the Convention refer only to properties located on the seabed of the contiguous zone, being silent on those found on the exclusive economic zone. Under national jurisdiction, it is natural that any research that attempts to locate sunken properties are previously authorized by the coastal State, if for no other reason than because it has sovereign rights for purposes of exploring and exploiting, conserving and managing non-living resources found on the seabed, as provided for in Article 56(1) of the Convention. In order to grant the authorization, the State may establish procedural rules to be observed by the interested parties, which, however, must target the protection and conservation of the environment, as set forth in the aforementioned Article 56(1) (c) (iii) of the Convention.

Law no. 7542/86 contains procedural rules, which identified the Ministry of the Navy as the competent Marine Authority to consider the applications for authorization. It is the authority the interested parties must address to request authorization to recover sunken properties.

Such authorization may be issued with some conditions to be complied with by the interested party in exploring the seabed for the recovery. The nature of such authorization has administrative nature and cannot pass such strict goal.

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MEMORIES

I was 13 when my father, Vicente Marotta Rangel, was elected to the International Tribunal for the Law of the Sea. For nearly twenty years, I accompanied his departures and arrivals, always important events that my memory insists on bringing back to life as if they had just occurred!

His departures began this way: two weeks before traveling, he searched among the largest suitcases in the house. He would consider one, and discard it; go through another, and grimace. When he found the most appropriate one – half the space of which would be filled with books – he would breath a long sigh, his respiration changing little by little, and the tension slowly subsided.

He always reserved from five to seven days to organize, among books and papers, the texts that he would take with him. He had the habit of noting his thoughts wherever was handy (the backs of magazines and of wrapping paper were more useful than any notebook), and would leave them "decanting" for a time, and then copy them out onto bond paper. I lost track of how many newspaper margins and blank envelopes he filled with the letters ITLOS/

TIDM. It ended up – and my mother was amused when he himself came to this conclusion – being a battle between papers and clothes. When necessary, he would sacrifice sweaters and coats for works about the Atlantic. Why not?

All of these episodes remind me of how my father and I built our mutual affection: we used words.

Vicente Marotta Rangel clothed himself with them, and spread word meanings wherever he went. In formal settings, he always talked slowly, interlacing his fingers and gazing upward, he would listen respectfully to others, tilting his chin slightly forward with his thumb, and leaving long pauses between one thought and another. He thought surgically and pondered long before stepping in, before giving an opinion. He was like a farmer who goes out in the field to collect fruit, and once there, stays, forgetting to come back, so enchanted he is with the smells of nature blooming, taking on life.

With Vicente Marotta Rangel, I saw the Portuguese language come to life. And then, French. The first words of each were like fragile chicks – short crested, damp, with eyes and beaks wide-open. To me they were strange, difficult, even clumsy.

With time, this discomfort changed. My father's lips taught me to appreciate them. Each phoneme, each sound, was more beautiful when he pronounced it. He taught me to take a word, warm it in the palms of my hands for a few minutes, like someone striking a flint against a stone until seeing the first sparks, open my hands, and toss them as if freeing macaws into a clear, deep blue sky. Gradually, many of them flew above the mango and eucalyptus trees.

With Vicente Marotta Rangel, I came to understand that words free you. It's who is behind them that keeps them prisoner.

With Vicente Marrota Rangel I learned to fill the ears of those I love with words that come from the heart. And this was my small garden that everyone possesses on the left side of the chest, where he planted those that are the most beautiful: "thank you", "I'm sorry, I didn't mean to hurt you", "would you please forgive me?", "I love you so much", "you're Daddy's Cinderella!".

This book is about those seeds that Vicente Marotta Rangel planted in the seas and that came to flower in the classrooms and libraries of Brazil, in conferences in New York, in conferences at the Hague, in hearts. It presents his legacy from the perspective of friends and admirers of his erudition,

elegance, competence, and sensitivity.

It is a book with many words, all of them sweet.

Because they are about Vicente Marotta Rangel.

My eternal and beloved father.

Chantal Scalfi Rangel
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