

Schulich School of Law, Dalhousie University

Schulich Law Scholars

LLM Theses

Theses and Dissertations

2010

Allocation of Fishing Opportunities in Regional Fisheries Management Organizations: A Legal Analysis in the Light of Equity

Maria Cecilia Engler Palma

Follow this and additional works at: https://digitalcommons.schulichlaw.dal.ca/llm_theses



Part of the [International Law Commons](#), and the [Natural Resources Law Commons](#)

Recommended Citation

Maria Cecilia Engler Palma, *Allocation of Fishing Opportunities in Regional Fisheries Management Organizations: A Legal Analysis in the Light of Equity* (LLM Thesis, Dalhousie University, Schulich School of Law, 2010) [unpublished].

This Thesis is brought to you for free and open access by the Theses and Dissertations at Schulich Law Scholars. It has been accepted for inclusion in LLM Theses by an authorized administrator of Schulich Law Scholars. For more information, please contact hannah.steeves@dal.ca.

Allocation of Fishing Opportunities in Regional Fisheries Management Organizations:
A Legal Analysis in the Light of Equity

by

Maria Cecilia Engler Palma

Submitted in partial fulfillment of the requirements
for the degree of Master of Laws

at

Dalhousie University
Halifax, Nova Scotia
August 2010

© Copyright by Maria Cecilia Engler Palma, 2010

DALHOUSIE UNIVERSITY

FACULTY OF LAW

The undersigned hereby certify that they have read and recommend to the Faculty of Graduate Studies for acceptance a thesis entitled “Allocation of Fishing Opportunities in Regional Fisheries Management Organizations: A Legal Analysis in the Light of Equity” by Maria Cecilia Engler Palma in partial fulfillment of the requirements for the degree of Master of Laws.

Dated: August 17, 2010

Supervisor: _____

Readers: _____

DALHOUSIE UNIVERSITY

DATE: August 17, 2010

AUTHOR: Maria Cecilia Engler Palma

TITLE: Allocation of Fishing Opportunities in Regional Fisheries Management
Organizations: A Legal Analysis in the Light of Equity

DEPARTMENT: Faculty of Law

DEGREE: LLM

CONVOCATION: October

YEAR: 2010

Permission is herewith granted to Dalhousie University to circulate and to have copied for non-commercial purposes, at its discretion, the above title upon the request of individuals or institutions.

Signature of Author

The author reserves other publications rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

The author attests that permission has been obtained for the use of any copyrighted material appearing in the thesis (other than the brief excerpts requiring only proper acknowledgement in scholarly writing), and that all such use is clearly acknowledged.

*To my husband, for his loving patience and encouragement,
and to my parents, for their unconditional support.*

Table of Contents

List of Tables	x
List of Figures	xi
Abstract	xii
List of Abbreviations Used	xiii
Acknowledgments	xv
Chapter 1. Introduction	1
Section 1. Objective and Structure of the Study	6
Section 2. High Seas Fisheries Management: Basic Concepts	8
High Seas and High Seas Fisheries Resources	9
The Economic Importance of High Seas Fisheries Resources	15
Regional Fisheries Bodies, Organizations and Arrangements	17
Conservation and Management Measures	22
Sharing Benefits of the Oceans: A Wider Picture	26
Chapter 2. TAC and Allocation: Its Origin and Evolution in International Fisheries Management.....	29
Section 1. The Theoretical Foundations for a TAC and Allocation of National Quotas.....	29
Section 2. Early Allocation Schemes and Practices	36
TAC and Allocation in ICNAF	36
TAC and Allocation in the North East Atlantic	40
TAC and Allocation for Atlantic Tunas	44
Section 3. TAC and Allocation in the Advent of the EEZ.....	50
The EEZ in the North West Atlantic	51
The EEZ in the North East Atlantic	53
The EEZ in ICCAT	54
Section 4. Allocation in Global Instruments and Fora: UNFSA and Beyond.....	55
Section 5. Developments in Regional Allocation Frameworks	65
The Revision of the Allocation Framework in NAFO	65
The Revision of the Allocation Framework in ICCAT	69
Allocation Criteria in Other RFMOs	71
Section 6. Concluding Remarks	73

Chapter 3. TAC and Allocation: Legal Analysis	77
Section 1. Global Framework for Allocation: Some General Aspects	77
Section 2. The Conflicts of Interests and Allocation Criteria	87
Coastal State Interests vs. DWFN Interests.....	89
Existing Participants vs. New Entrants.....	95
Developed vs. Developing States	98
A Summary of Allocation Criteria	100
Section 3. Regional Frameworks for Allocation.....	102
Allocation Provisions in RFMOs Conventions	102
Allocation Guidelines	107
What Do Regional Instruments Add to the Legal Framework for Allocation?.....	111
Section 4. Allocation in Practice	113
Allocation Agreements Adopted by RFMOs	114
a) WCPFC Limitations on Effort and Catches for the Swordfish Fisheries.....	115
b) CCSBT and the MoU	116
c) ICCAT and Percentage Agreements.....	117
d) NAFO and Allocation Tables.....	118
Allocation Criteria: Any Influence for Allocation Decisions?	120
Chapter 4. Allocating to Future Generations: Intergenerational Equity in International Fisheries Law.....	125
Section 1. Intergenerational Equity and its Recognition in International Environmental Law	126
Section 2. Intergenerational Equity in International Fisheries Law	136
Intergenerational Equity as Reflected in International Fisheries Instruments.....	136
“Planetary Obligations” in International Fisheries Law.....	138
Section 3. Allocating TAC: Balancing Short and Long Term Needs	144
TAC, Conservation, and Options for Future Generations.....	144
Allocation, Conservation, and Options for Future Generations	146
a) The Announcement Effect: Postponing Measures and the Race to Fish.....	146
b) Inflated TACs	147
c) The “Paper Fish” Effect.....	148
d) Accommodating New Entrants.....	149
Concluding Remarks	150

Section 4. Postponing Long-term Considerations: Some Examples	150
South Pacific Jack Mackerel: a Recent Case of Announcement Effect	150
NAFO and White Hake: Paper Quotas at Unrealistic High Levels	155
Section 5. Intergenerational Equity in TACs and Allocation: Ways Forward	157
Chapter 5. TAC and Allocation and Intra-generational Equity	164
Section 1. Equity in International Law	166
Section 2. International Environmental Law, Sustainable Development, and Intra-Generational Equity	172
Section 3. Equity and Equitable Principles in International Fisheries Instruments	178
Section 4. The Principle of Equitable Delimitation in Maritime Boundary Delimitation	189
Equity with a Normative Content	190
The Relevant Circumstances	196
a) The Socio-Economic Factors	197
b) Historical Rights and Prior Uses	200
Section 5. The Principle of Equitable Utilization in the Law of Non-Navigational Uses of International Watercourses	201
Equitable Utilization: Theoretical Foundation	203
Equitable Utilization in International Law of Watercourses	205
The Content of Equitable Utilization	206
The Relevant Circumstances	208
a) Geography and Hydrology of the River	209
b) Prior and Existing Uses	210
c) Economic and Social Needs of the States	212
Concluding Remarks	213
Section 6. Intra-generational Equity and the Principle of Common but Differentiated Responsibility	214
CBDR in High Seas Fisheries	218
CBDR in Practice	224
Section 7. Lessons for International Fisheries Law	226
The Applicability of Equity in International Fisheries	227
Constructing a Normative Content of Equity	228
The Allocation Conflicts in the Light of the Experience of Other Fields of International Law	230

a) The EEZ/High Seas Distributional Conflict in the Light of Other Experiences	231
b) Historical Catches, Intergenerational Equity and New Participants.....	236
c) The Developing States/Developed States Conflict: Socio-Economic Factors.....	239
d) Other Fundamental Norms in International Fisheries Allocation	243
e) Equity as an Open Concept	244
Chapter 6. Institutional and Procedural Implications	245
Section 1. Role of Equitable Principles in Negotiated Allocations.....	245
Section 2. Constructing a Normative Concept of Equity: RFMOs' Role	247
Section 3. Transparency in Allocation: the Contribution of Equity.....	253
Current Allocation Procedures in RFMOs	253
Towards Transparency: Procedural Aspects of Equity	256
Procedure in RFMOs Allocation Frameworks: Some Examples	257
Section 4. Concluding Remark: a Digression	260
Chapter 7. Quota Trading: Efficient and Equitable?	264
Section 1. Trading Quota: the Golden Solution	266
Section 2. Towards Right-based Management in High Seas Fisheries?	267
Section 3. Trading Quotas in RFMOs: Theory and Practice.....	270
Quota Trading in ICCAT.....	271
Quota Trading in NAFO.....	273
Quota Trading in NEAFC	274
Quota Trading in WCPFC	274
Quota Trading in CCSBT	274
Quota Trading in CCAMLR.....	276
A Summary of RFMOs Practice.....	276
Section 4. Quota Trading in Light of Equity.....	277
Quota Trading and Intergenerational Equity	280
Quota Trading and Intra-generational Equity.....	282
Section 6. Some Concluding Remarks.....	287
Chapter 8. Conclusions	290
Balancing Efficiency and Equity: Losing the Battle?	290
The Stormy Road of Equity	292

Equity: a Useful Concept?.....	294
Allocation: Pure Policy?.....	297
Appendix. States Ratification or Accession to LOSC, UNFSA, and RFMOs	
Conventions	299
References cited	304

List of Tables

Table 1. Provisions with allocation implications in UNFSA.....	85
Table 2. Allocation criteria in RFMO Conventions.....	104
Table 3. Qualifying criteria in ICCAT and NAFO guidelines.....	108
Table 4. Allocation criteria in NAFO and ICCAT guidelines	109
Table 5. ICCAT, allocation of national quotas of Western Atlantic bluefin tuna	117
Table 6. Table NAFO Quota Table 2010, partial reproduction.....	119
Table 7. Allocation framework and practices in RFMOs	121
Table 8. Pelagic Effort in the South Pacific RFMO Convention Area	153
Table 9. Jack mackerel catches in the 2000-2008 period	154
Table 10. Weighting of resource distribution v. historical landings (express in percentage) in the sharing agreement adopted by the Gulf of Maine Transboundary Management Guidance Committee on December 2001	234
Table 11. Institutions potentially involved in the development of equitable principles for allocation of high seas fishing opportunities	251

List of Figures

Figure 1. Maritime Zones	11
Figure 2. Types of stocks occurring partially or entirely in the high seas.	14
Figure 3. Regional Fisheries Bodies	18

Abstract

The allocation of fishing opportunities is one of the most difficult challenges for high seas fisheries management. There is an ongoing search for equitable and transparent allocation frameworks. This thesis explores whether, under what conditions, and with what shortcomings, a legal concept of equity can provide assistance in the development of such a framework. To this end, it reviews the historical origins of allocation of quotas in international fisheries, and summarizes the current global and regional legal frameworks for allocation and regional practices. It then analyzes whether intergenerational and intra-generational equity is considered in the international legal framework for high seas fisheries, and what the legal and practical implications of their inclusion are. It provides some suggestions on how to integrate intergenerational and intra-generational equity more effectively into allocation decisions. It concludes by highlighting the contribution of law in the search for allocation frameworks.

List of Abbreviations Used

CBD	Convention on Biological Diversity
CBDR	Common but Differentiated Responsibility
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCMs	Commission Members, Cooperating Non-Members and Participating Territories (WCPFC)
CCSBT	Commission for the Conservation of Southern Bluefin Tuna
CISDL	Centre of International Sustainable Development Law
COFI	Food and Agriculture Organization Committee on Fisheries
DOALOS	Division for Ocean Affairs and the Law of the Sea
DWFN	Distant Water Fishing Nation
EEZ	Exclusive Economic Zone
EU	European Union
ENGO	Environmental Non-governmental Organization
FAO	Food and Agriculture Organization of the United Nations
GRT	Gross Registered Tonnage
GT	Gross Tonnage
IATTC	Inter-American Tropical Tuna Commission
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICES	International Council for the Exploration of the Sea
ICJ	International Court of Justice
ICNAF	International Commission for the Northwest Atlantic Fisheries
IISD	International Institute for Sustainable Development
ILA	International Law Association
ILC	International Law Commission
IOTC	Indian Ocean Tuna Commission
IPOA	International Plan of Action
ISSD	International Institute for Sustainable Development

ITLOS	International Tribunal for the Law of the Sea
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported and Unregulated
LOSC	1982 United Nations Law of the Sea Convention
MSY	Maximum Sustainable Yield
MoU	Memorandum of Understanding
NAFO	Northwest Atlantic Fisheries Organization
NEAFC	North East Atlantic Fisheries Commission
NGO	Non-governmental Organization
RFMO	Regional Fisheries Management Organization
SCRS	Standing Committee on Research and Statistics (ICCAT)
SEAFO	South East Atlantic Fisheries Organisation
SIDS	Small Island Developing State
SPRFMO	South Pacific Regional Fisheries Management Organization
STACREM	Standing Committee on Regulatory Measures
TAC	Total Allowable Catch
UNFSA	United Nations Fish Stock Agreement
UK	United Kingdom
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNFSA	United Nations Fish Stock Agreement
UNGA	United Nations General Assembly
USA	United States of America
USSR	Union of Soviet Socialist Republics
VAT	Virtual Population Analysis
WCPFC	Western and Central Pacific Fisheries Commission

Acknowledgments

I am grateful for the generous financial support provided by the Killam Trust during the two years of my programme. This support was essential for the fulfillment of this work, as well as the publications prepared during the LLM.

I would also like to acknowledge the great support of the Professors and staff of the Marine & Environmental Law Institute at Dalhousie University and the Graduate Programme at Dalhousie University Schulich School of Law, as well as the Sir James Dunn Law Library staff. All of them went beyond their duty in helping me through this process with both valuable information and friendly support.

I especially thank Dr. Dawn Russell for her insightful comments and guidance, and for her kind and generous support.

Finally, I want to express my deepest gratitude to my supervisor, Dr. David VanderZwaag, for his tremendous assistance and the opportunity to develop and enhance my knowledge and research skills.

Chapter 1. Introduction

High seas fisheries are in a crisis. Numerous recent studies demonstrate that high seas fisheries resources are declining,¹ that management regimes are ineffective,² and that international fisheries management is scientifically unsound³ and economically wasteful.⁴

The sources of the difficulties to achieve effective management in international fisheries are both economic and legal. From an economic perspective, high seas fish stocks are renewable, but exhaustible, natural resources. In addition, they have a high economic value and are, therefore, in high and increasing demand. These two characteristics make them scarce resources. From a legal perspective, the regime for high seas governance is founded on four pillars codified in international conventions: freedom of the high seas, States' sovereignty, States' equality, and States' cooperation. Accordingly, high seas fisheries are open to all States, while restrictions on fishing activities require agreement of the participating States.⁵

Those economic and legal features are the underlying cause of the many difficulties of the high seas regime.⁶ One of those difficulties, and indeed a crucial one, is the problem of participation and access to high seas fisheries resources. The fact that high seas fisheries resources are both open access (or "common pool")⁷ and scarce resources

¹ See, for example: FAO, *The state of world fisheries and aquaculture 2008* (Rome: FAO, 2009) [hereafter SOFIA 2008], particularly at 35; Sarika Cullis-Suzuki and Daniel Pauly, "Failing the High Seas: A Global Evaluation of Regional Fisheries Management organizations" Marine Policy [forthcoming in 2010], in particular at 5-7.

² See, for example: Cullis-Suzuki and Pauly, *ibid*; Robin Allen, *International Management of Tuna Fisheries: Arrangements, Challenges and a Way Forward*, FAO Fisheries and Aquaculture Technical Paper Nr. 536 (Rome: FAO, 2010), in particular section 3 and 41.

³ See, for example: Allen, *ibid*, at 41; Marjorie L. Mooney-Seus and Andrew A. Rosenberg, *Regional Fisheries Management Organizations: Progress in Adopting the Precautionary Approach and Ecosystem-Based Management, Recommended Best Practices for Regional Fisheries Management Organizations*, Technical Study Nr. 1, (London: The Royal Institute of International Affairs, 2007), online Chatham House <<http://www.chathamhouse.org.uk/publications/papers>>.

⁴ See: World Bank and FAO, *The Sunken Billions: The Economic Justification for Fisheries Reform*, (Washington DC: World Bank, 2008), as cited by Allen, *ibid*, at 5.

⁵ This description is deliberately over-simplistic. The legal framework will be analyzed with more details in chapter 3 of this thesis.

⁶ Some of those problems are: lack of accurate and timely data, scientific assessment, technical capacity, decision-making, monitoring, controlling and surveillance activities, non-cooperation by non-parties to cooperative regimes ("free riders"), non-compliance by, and enforcement problems with, parties and cooperating non-parties to cooperative regimes, and lack of transparency.

⁷ Gordon Munro, Annick Van Houtte, and Rolf Willmann, *The conservation and management of shared fish stocks: legal and economic aspects*, FAO Fisheries Technical Paper No. 465 (Rome: FAO 2004), at 11.

implies that not all States can fish all they want (at least not sustainably). Restrictions are necessary, and those restrictions imply the need for a distribution of the available fish. Paraphrasing Franck, the high seas fisheries regime presents the two conditions that make distribution (or allocation) of the scarce resource “possible and necessary”.⁸ Those two conditions are the existence of limited or scarce resources, and a community of interests over those resources.⁹

Allocation of high seas fishing opportunities has been singled out as the most difficult aspect of the international fisheries management regime.¹⁰ The regional fisheries organizations established to provide a forum to manage fish resources in the high seas have faced significant challenges and conflicts in allocating fishing opportunities among participating States.¹¹ Allocation mechanisms in those organizations have been criticized by members and non-members as inequitable and non-transparent. There is an ongoing search for a more objective, transparent, predictable, reasonable and fair allocation framework.

The problem of allocating high seas fisheries opportunities has been the subject of a number of studies. Most of them address the allocation problem from an economic

⁸ Thomas M. Franck, *Fairness in International Law and Institutions* (Oxford: Clarendon Press, 1995) at 9.

⁹ *Ibid.*, at 9-10.

¹⁰ Ted L. McDorman, “Implementing existing tools: Turning words into actions – decision-making processes of regional fisheries management organizations (RFMOs)” (2005) 20 Int’l J. Mar. & Coast. L. 423, at 425; D. J. Agnew, D. Aldous, M. Lodge, P. Miyake, and G. Parkes, “Discussion Paper: Allocation Issues for WCFPC Tuna Resources,” prepared for the WCFPC Secretariat by MRAG Ltd., October 2006, at 15, online: WCFPC <<http://www.wcpfc.org>>. Willock and Lack state: “The allocation of fishing opportunities, or participatory rights, within RFMOs has proven to be one of the most contentious issues dealt with in these forums. Experience as shown that it has the potential to dominate debate, undermine conservation measures and virtually render an RFMO moribund” (A. Willock and M. Lack, *Follow the leader: Learning from experience and best practice in regional fisheries management organizations* (WWF International and TRAFFIC International, 2006) at 26, online TRAFFIC <<http://www.traffic.org/fisheries>>).

¹¹ Cullis-Suzuky and Pauly, *supra* note 1, at 6. Lodge *et al.*, citing Fisheries and Ocean Canada (DFO), note that the most common objection to conservation and management measures in the Northwest Atlantic Fisheries Organization (NAFO) has been with respect to national quota allocations. The objection rate is not insignificant: on average 10 objections per year were filed against NAFO decisions in the late 1980s and the early 1990s, dropping to two and four objections per year in more recent years (Michael W. Lodge, David Anderson, Terje Løbach, Gordon Munro, Keith Sainsbury, and Anna Willock, *Recommended Best Practices for Regional Fisheries Management Organizations: Report of an independent panel to develop a model for improved governance by Regional Fisheries Management Organizations* (London: The Royal Institute of International Affairs, 2007) at 39, online Chatham House <<http://www.chathamhouse.org.uk/publications/papers>>).

perspective.¹² In particular, game theory has been resorted to as an analytical tool addressing the conflicts of cooperation, participation and access in high seas fisheries.¹³ There are also a number of analyses from the perspective of political science.¹⁴ And of course, allocation has been included in several studies that provide policy advice on high seas fishing.¹⁵ Legal studies have been, however, relatively scarce.¹⁶ The scarcity of legal studies is probably the result of the widespread opinion that allocation of fishing opportunities is a political rather than a legal issue.¹⁷ Allocation is a matter to be

¹² See, for example: R. Quentin Grafton *et al.*, *The Economics of Allocation in Tuna Regional Fisheries Management Organizations* (RFMOs), Australian National University, Economics and Environment Network Working Paper EEN0612, 14 December 2006, online: Australian National University, Economic and Environment Network <<http://een.anu.edu.au>>; Allen, *supra* note 2.

¹³ See, for example: Munro, Van Houtte and Willmann, *supra* note 7, at 10-11; Gordon Munro, "Game theory and the development of resource management policy: the case of international fisheries" (2008) 14 *Environment and Development Economics* 7; T. Bjørndal, V. Kaitala, M. Lindroos, and G. Munro, "The management of high seas fisheries" (2000) 94 *Annals of Operations Research* 183; P. Pintassilgo, "A coalition approach to the management of high seas fisheries in the presence of externalities" (2003) 16 *Natural Resource Modeling* 175.

¹⁴ See, for example: Áslaug Ásgeirsdóttir, *Who Gets What?: Domestic Influences on International Negotiations Allocating Shared Resources* (New York: State University of New York, 2008); Arild Underdal, *The Politics of International Fisheries Management: The Case of the Northeast Atlantic* (Oslo: Universitetsforlaget, 1980); Alf Håkon Hoel and Ingrid Kvalvik, "The allocation of scarce natural resources: The case of fisheries" (2006) 30 *Marine Policy* 347.

¹⁵ See: Lodge *et al.*, *supra* note 11; Mooney-Seus and Rosenberg, *supra* note 3; Willock and Lack, *supra* note 10; OECD, *Strengthening Regional Fisheries Management Organizations* (OECD, 2009); Douglas S. Butterworth and Andrew J. Penney, "Allocation in high seas fisheries: avoiding meltdowns" in A.I.L. Payne, C.M. O'Brien and S.I. Rogers (eds.), *Management of Shared Fish Stocks* (Malden, MA: Blackwell Pub., 2004) 165.

¹⁶ See: Erik Jaap Molenaar, "Participation, Allocation and Unregulated Fishing: The Practice of Regional Fisheries Management Organizations" (2003) 18 *Int'l J. Mar. & Coast. L.* 457 [Molenaar, "Participation"]; Rosemary Rayfuse, "Regional allocation issues or Zen and the art of pie cutting" University of New South Wales Law Research Paper Nr. 2007-10 (paper presented at the Sharing the Fish Conference 06: Allocation Issues in Fisheries Management, Perth, 26 February – 2 March 2006); Daniel Owen, *Practice of RFMOs Regarding Non-members*, Recommended Best Practices for Regional Fisheries Management Organizations, Technical Study No. 2 (London: The Royal Institute of International Affairs, 2007), online Chatham House <<http://www.chathamhouse.org.uk/publications/papers>>. Important analysis on allocation of fishing opportunities was also included in Erik Jaap Molenaar, "The South Tasman Rise Arrangement of 2000 and other Initiatives on Management and Conservation of Orange Roughy" (2001) 16 *Int'l J. Mar. & Coast. L.* 77 [Molenaar, "The South Tasman Rise Arrangement"]. Some mentions to allocation of high seas fishing opportunities are also included in general studies on the law of the sea or high seas fisheries, and in particular in legal studies on the *United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, 4 August 1995, 34 *ILM* 1542 (1995); 2167 UNTS 88 (entered into force 11 December 2001) [hereafter UNFSA].

¹⁷ Lodge *et al.* note: "The allocation of participatory rights and the mechanisms used to assimilate the dynamics of both the fisheries themselves and the broader geopolitical landscape invariably result from a negotiated outcome between sovereign States. (...) [E]xperience to date has been that allocation is invariably a political decision" (Lodge *et al.*, *supra* note 11, at 34). Molenaar, in turn, considers that "[t]he allocation process is to a large extent governed by political and negotiating factors, and constrained only by very general rules and principles of international law" (Molenaar, "Participation", *ibid.*, at 479).

negotiated and agreed upon by the involved parties without significant guidance in the form of substantive rules. Oda has categorically asserted that in the issues of allocation of benefits and burdens of ocean management and conservation,

the concept of equity has a predominant impact, while legal norms play little or no role. Equity comprises no objective legal criterion and varies in each circumstance. Its evaluation or determination is not a simple matter. Solutions in the above categories nonetheless will need to be found; but they will not be found simply in rules and regulations of law, and they are not subject simply to judicial determination.¹⁸

This dismissal of the discipline of law in the resolution of allocation problems seems at odds with several recent developments in international law and in international fisheries law. First, and perhaps most importantly, it contradicts the increasing role of equity and equitable principles as a legal standard for the allocation of scarce resources in international law. This role has been recognized by several scholars. Schachter, for example, identified five manifestations or uses of equity. One of those manifestations is to provide a legal standard for allocation of scarce resources. Furthermore, he asserts that “[e]quitable principles of a more specific *substantive* character have come to have an especially significant role in regard to shared resources and delimitation problems” (emphasis added).¹⁹ Shelton, in turn, considers that there are three categories of substantive legal norms that promote the idea of justice: norms addressing the consequences of wrongful actions; norms of humane treatment; and norms allocating scarce resources.²⁰ Furthermore, the concepts of equitable delimitation and equitable use have been widely considered as the legal substantive norms governing the delimitation of maritime areas and the apportionment of shared resources. As such, they have been applied by the Permanent Court of Arbitration and the International Court of Justice (ICJ) in the legal resolution of disputes between parties.

¹⁸ Shigeru Oda, “Some reflections on recent developments in the law of the sea” (2002) 27 Yale J. Int’l L. 217, included in Shigeru Oda, *Fifty Years of Law of the Sea, with a special section on the International Court of Justice: selected writings of Shigeru Oda* (The Hague; New York: Kluwer Law International, 2003) 685, at 690.

¹⁹ Oscar Schachter, *International Law in Theory and Practice* (Dordrecht, the Netherlands; Boston: Martinus Nijhoff Publishers, 1991) at 58.

²⁰ Dinah Shelton, “Describing the elephant: international justice and environmental law” in Jonas Ebbesson and Phoebe Okowa (eds.), *Environmental Law and Justice in Context* (Cambridge, UK; New York: Cambridge University Press 2009) 55, at 65.

The dismissal of legal principles from allocation of fishing opportunities also ignores the importance of equity as a component of the concept of sustainable development, which in turn has an increasing influence in the interpretation and implementation of international law. The concept of sustainable development recognizes a particularly important role to be fulfilled by the principle of intergenerational equity, which addresses the fair allocation of resources between present and future generations, and the principle of intra-generational equity, which address the fair allocation of resources within current generations.²¹

Equity is also considered an element of the ecosystem approach to natural resource management, defined as “a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.”²² The ecosystem approach has been explicitly accepted as a guiding principle and objective for fisheries management for both areas under national jurisdiction and the high seas,²³ and has been included as such in both binding²⁴ and non-binding²⁵ fisheries instruments at the global and regional level. In the particular context of ecosystem

²¹ See, for example: *New Delhi Declaration of Principles of International Law Relating to Sustainable Development*, adopted by the 70th Conference of the International Law Association, held in New Delhi, India, 2-6 April 2002, included in (2002) 2 International Environmental Agreements: Politics, Law and Economics 211 [hereafter ILA New Delhi Declaration], at 212-213. The role of intergenerational equity and intra-generational equity in international law in the field of sustainable development will be addressed in detail in chapters 4 and 5 of this thesis.

²² Conference of the Parties to the Convention on Biological Diversity (CBD), Decision V/6 adopted during Fifth Meeting of the Conference of the Parties to the Convention on Biological Diversity, *Nairobi, Kenya*, 15 - 26 May 2000 (CBD COP 5 Decision V/6), section A paragraph (1), online: CBD <<http://www.cbd.org>>.

²³ S.M. Garcia, A. Zerbi, C. Aliaume, T. Do Chi, and G. Lasserre, *The ecosystem approach to fisheries: Issues, terminology, principles, institutional foundations, implementation and outlook*, FAO Fisheries Technical Paper No. 443 (Rome: FAO, 2003).

²⁴ See, for example: UNFSA, article 5 subparagraphs e) and d); *Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean*, 5 September 2000, 40 ILM 278 (2001) [hereafter WCPFC Convention], articles 5 subparagraph d) and 12(3) subparagraphs b) and c). More importantly, the recently adopted Convention for the Conservation and Management of High Seas Fisheries Resources in the South Pacific makes explicit reference to “ecosystem approach” and considers it as a necessary means to achieve the objective of the Convention (*Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean*, adopted at Auckland, November 14, 2009, online: South Pacific Regional Fisheries Management Organization (SPRFMO) <www.southpacificrfmo.org> [hereafter SPRFMO Convention] preamble para. 9 and articles 2, 3(1) subparagraph b) and 3(2) subparagraph b).

²⁵ *Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem*, adopted by the FAO Conference in its Thirty-first session, Rome, 2-13 November 2001, online: FAO <<http://www.fao.org>>; FAO, *Code of Conduct for Responsible Fisheries*, FAO Doc. 95/20/Rev/1; UN Sales No. E98.V.11 (1998); 1995 WTS 3, online: FAO <<http://www.fao.org/fishery/en>> [hereafter FAO Code of Conduct], in particular article 6.

approach to fisheries management, equity has been explicitly recognized as one of its core principles.²⁶

Furthermore, the assertion that allocation is a political and not a legal issue appears to ignore that there is a perceived need for a framework for allocations of fishing opportunities that is objective, transparent, predictable, reasonable, and fair. Those are, precisely, roles that law fulfills in the organization of society.

Section 1. Objective and Structure of the Study

The starting point of this thesis is, therefore, that equity plays an important role as a legal standard for allocation of scarce resources in international law; a legal standard which has been defined and refined in the context of international law, international environmental law, and international law in the field of sustainable development. The purpose of this thesis is to explore whether, under what conditions, and with what shortcomings, a legal concept of equity can provide assistance for the allocation of high seas fishing opportunities. This analysis is undertaken both from the perspective of allocation of fishing opportunities between generations (intergenerational or inter-temporal allocation), and from the perspective of allocation within generations (intra-generational allocation). It should be noted from the outset, though, that as the thesis progresses, this over-simplified starting point will be qualified and clarified precisely to answer those questions.

To achieve the objective of this thesis, this study is divided in three main parts: a first part providing a background on allocation; a second part analyzing allocation from the perspective of intergenerational equity; and a third part analyzing allocation from the perspective of intra-generational equity.

The first part has the objective of providing an in-depth understanding of the current status of allocation of fishing opportunities in the high seas, both at the level of global and regional legal framework and at the level of regional practices. This in-depth analysis is undertaken in chapters 2 and 3. Chapter 2 provides an historical recount of the emergence of total allowable catches (TACs) and allocation of national quotas as a

²⁶ See: Garcia *et al.*, *supra* note 23, at 26; FAO, *The Ecosystem Approach to Fisheries*, Technical Guidelines for Responsible Fisheries No. 4 Suppl.2 (Rome: FAO, 2003) at 15 and Annex 2 on Principles of Relevance to an Ecosystem Approach to Fisheries.

fundamental conservation and management measure for international fisheries management, and of its evolution to this day. Emphasis is placed on the *rationale* behind the implementation of TACs and allocation of national quotas, its recognition in legal frameworks, and the role of equity in this evolution. Chapter 3 analyses the current legal framework for allocation of fishing opportunities, and the current regional allocation practices. An emphasis is put on the shortcomings of the existing legal framework to solve the different conflicts of interests involved in an allocation issue.

These preliminary chapters provide the foundation to address allocation from the perspective of intergenerational and intra-generational equity. Chapter 4 addresses the legal linkages and the practical impacts of allocation of fishing opportunities on intergenerational equity. For this purpose, it analyzes the concept of intergenerational equity, its status in international law, and how the concept is recognized in international fisheries law. It then addresses the practical implications of allocation of fishing opportunities for intergenerational equity.

Chapter 5 addresses allocation of fishing opportunities from the perspective of equity within the present generation, or intra-generational equity. As in the preceding chapter, it starts by analyzing the concept of equity and its status in international law and in international law in the field of sustainable development. This analysis provides an opportunity to understand the richness of the concept of equity, its different meanings or emphasis, its current acceptance in international law, and its evolving status. It is with this deeper understanding of equity that the thesis addresses its recognition in international fisheries law.

The previous analysis allows concluding that equity – and in particular autonomous equity - can be considered a fundamental norm for allocation of fishing opportunities. This conclusion only opens the door for furthering the comprehension of the legal concept of equity and its normative content. For this purposes, the chapter analyzes three equitable principles identified and applied in other areas of international law. These three equitable principles are: equitable delimitation, equitable use, and common but differentiated responsibility. These three analyses provide valuable lessons for the construction of a normative concept of equity. They also provide valuable insights on the influence and evolution of certain categories of factors that are traditionally

considered relevant in the distribution of resources, and that have been also considered in the legal framework for the distribution of high seas fishing opportunities. Those are: historical or prior use, geographical and jurisdictional considerations (or zonal attachment), and socio-economic factors. This information allows re-examining the conflicts involved in the allocation of fishing opportunities in the high seas in the light of an evolving concept of equity.

To complete the analysis of allocation of high seas fishing opportunities in the light of a normative concept of equity, the thesis addresses two final topics in chapters 6 and 7. Chapter 6 considers the institutional and procedural implications of the adoption of a normative concept of equity for allocation of fishing opportunities. Finally, chapter 7 addresses one emerging and particularly important aspect of allocation - the tradability of national quotas - in light of equity considerations.

Before undertaking this analysis, however, some background information on high seas fisheries resources and high seas fisheries governance is needed. This background information will be provided in the next section of this chapter, which also serves to specify the scope of this thesis.

Section 2. High Seas Fisheries Management: Basic Concepts

This section provides an overview of important concepts of international fisheries management that are required as a conceptual framework for the subject of TAC and allocations. Those elements are: the different jurisdictional areas in the law of the sea; the classification of resources according to their distribution between those areas; the economic importance of high seas resources; the role of regional fisheries bodies and regional fisheries management organizations in high seas fisheries management; and the conservation and management measures that these organizations may adopt for the sustainable management of high seas fisheries. It is also considered relevant to give a wider perspective on the sharing of ocean resources, albeit this approach will not be pursued further in the thesis. The analysis undertaken here is neither novel nor extensive, since its objective is only to provide necessary background for the following chapters.

High Seas and High Seas Fisheries Resources

The law of the sea, which has developed over many centuries, is currently reflected mainly in the 1982 *United Nations Law of the Sea Convention* (LOSC).²⁷ The LOSC adopts a geographical and jurisdictional approach to oceans management. As stated by van Houtte, “the main trust (*sic*) of the 1982 Convention is the division of the ocean space into different jurisdictional areas and the identification of the rights and duties of States within those various areas.”²⁸ These various ocean areas are: internal waters, territorial sea, contiguous zone, exclusive economic zone (EEZ), archipelagic waters, continental shelf, high seas, and the Area (seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction). For purposes of fisheries jurisdiction, however, the relevant areas are the territorial sea, the EEZ, and the high seas.

The territorial sea is an area of up to 12 nautical miles, measured from baselines determined in accordance with the LOSC.²⁹ In this area, the coastal State exercises sovereignty, subject to the provisions of the LOSC and other rules of international law.³⁰ The main limitation imposed by the LOSC is the coastal State’s obligation to allow the innocent passage of vessels flying the flag of another country.³¹ Thus, in exercising sovereignty, the coastal State has exclusive jurisdiction for the conservation and management of the living marine resources that occur in this ocean belt.

²⁷ *United Nations Convention on the Law of the Sea*, 10 December 1982, 1833 UNTS 3; 21 ILM 1261 (1982) (entered into force November 16, 2004) [hereafter LOSC].

²⁸ Annick Van Houtte, “Legal Aspects in the Management of Shared Fish Stocks”, in FAO, *Papers presented at the Norway-FAO Expert Consultation on the Management of Shared Fish Stocks, Bergen, Norway, 7-10 October 2002*, FAO Fisheries Report Nr. 695Suppl. (Rome: FAO, 2003) 30, at 30.

²⁹ LOSC, article 5: “Except where otherwise provided in this Convention, the normal baseline for measuring the breadth of the territorial sea is the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State.” LOSC, article 6: “In the case of islands situated on atolls or of islands having fringing reefs, the baseline for measuring the breadth of the territorial sea is the seaward low-water line of the reef, as shown by the appropriate symbol on charts officially recognized by the coastal State.” LOSC, article 7(1): “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.” Article 7 of the LOSC provides guidance and conditions to draw straight baselines.

³⁰ LOSC, article 2(1) and 2(3): “The sovereignty of a coastal State extends, beyond its land territory and internal waters and, in the case of an archipelagic State, its archipelagic waters, to an adjacent belt of sea, described as the territorial sea. (...) The sovereignty over the territorial sea is exercised subject to this Convention and to other rules of international law.”

³¹ LOSC, article 17: “Subject to this Convention, ships of all States, whether coastal or land-locked, enjoy the right of innocent passage through the territorial sea.”

The EEZ is an area beyond and adjacent to the territorial sea, extending up to 200 nautical miles from the baselines from which the territorial sea is measured.³² In this area, the coastal 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, 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.³³ It also exercises jurisdiction with regard to the establishment and use of artificial islands, installations, and structures; marine scientific research; and the protection and preservation of the marine environment; as well as other rights and duties provided for in the Convention.³⁴

The sovereign rights that coastal States exercise in their EEZs over natural resources entail the right to determine the TAC of the fish stocks within this zone (thus defining the conservation goals independent of other States) and to optimally use those stocks. However, “[w]here the coastal State does not have the capacity to harvest the entire allowable catch, it shall, through agreements or other arrangements (...) give other States access to the surplus of the allowable catch”.³⁵ In so doing, some particular provisions should be taken into account by the coastal State.³⁶

The high seas encompass “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.”³⁷ It includes, therefore, the water column over the extended continental shelf claimed by States in accordance to article 76 of LOSC, and the water column above the Area. This vast maritime space is open to all

³² LOSC, articles 55 and 57. The EEZ breadth is, therefore, only 188 nautical miles.

³³ LOSC, article 56.

³⁴ LOSC, article 56(1).

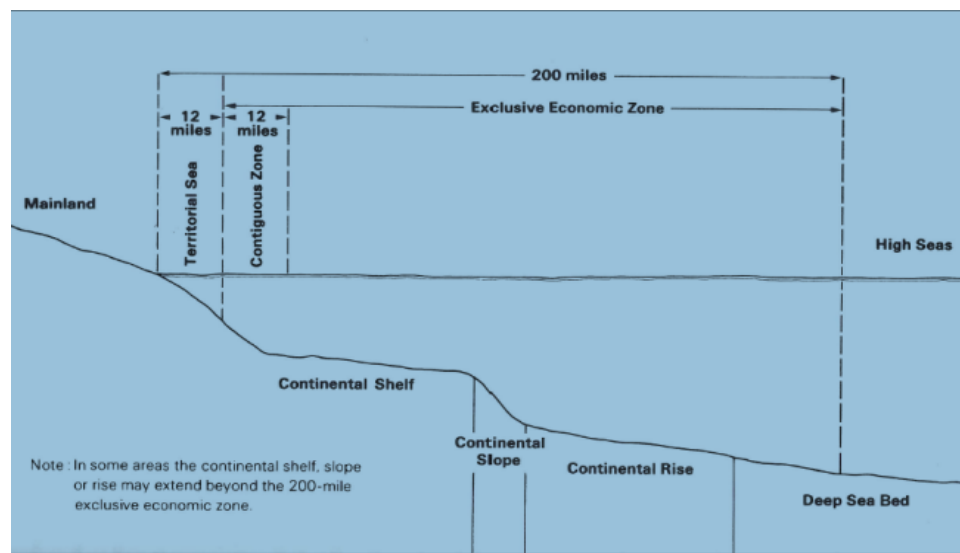
³⁵ LOSC, article 62(2).

³⁶ These are: the significance of the living resources of the area to the economy of the coastal State concerned and its other national interests (including the fishing communities or fishing industries of the coastal State); the rights of landlocked and geographically disadvantaged States; the requirements of developing States in the sub-region or region in harvesting part of the surplus; the need to minimize economic dislocation in States whose nationals have habitually fished in the zone; and the need to minimize economic dislocation in States which have made substantial efforts in research and identification of stocks. In particular relation to landlocked and geographically disadvantaged States, the LOSC considers: the need to avoid a particular burden for any single coastal State or a part of it; the nutritional needs of the populations of the respective States; and the rule that developed States can only participate in the exploitation of living resources in the EEZ of developed coastal States of the same subregion or region (LOSC, article 62).

³⁷ LOSC, article 86.

States, whether coastal or land-locked.³⁸ In this area, every State has the freedom of navigation; the freedom of overflight; the freedom to lay submarine cables and pipelines; the freedom to construct artificial islands and other installations permitted under international law; the freedom of fishing; and the freedom of scientific research.³⁹ The freedoms of the high seas must be exercised with due regard for international law and the provisions of the LOSC,⁴⁰ and with due regard for the interests of other States in their exercise of the freedoms of the high seas.⁴¹

Figure 1. Maritime Zones



Source: R.R. Churchill and A. V. Lowe, *The Law of the Sea*, 3d ed. (Oxford: Manchester University Press, 1999) at 30.

The spatial jurisdiction of the LOSC does not coincide with the biological distribution or migration patterns of fisheries resources. There are, therefore, some fish stocks⁴² that are distributed over, or migrate across, ocean areas under different

³⁸ LOSC, article 87(1).

³⁹ LOSC, article 86(1).

⁴⁰ See: LOSC, article 86(1).

⁴¹ LOSC, article 86(2). The article adds that the freedoms of the high seas must be exercised with due regard for the rights under this Convention with respect to activities in the Area. Since the management regime for the seabed beyond areas under national jurisdiction is not analyzed, this reference has been omitted.

⁴² A fish stock is a “subset of a species with similar growth and mortality parameters within a given geographical area and with negligible interbreeding with other stocks of the same species in adjacent areas” (Jean-Jacques Maguire, Michael Sissenwine, Jorge Csirke, Richard Grainger, and Serge Garcia, *The state*

jurisdiction. These are usually classified in four categories: transboundary stocks, highly migratory stocks, straddling stocks, and discrete stocks.

The fish stocks that straddle between the EEZ of two or more States are usually known as transboundary stocks.⁴³ Article 63(1) of the LOSC, in establishing the regime for these stocks, refers to them simply as “stock or stocks of associated species [that] occur within the exclusive economic zones of two or more coastal States”.

Some stocks also straddle or migrate between the EEZ of one or more States and the high seas: highly migratory and straddling stocks.⁴⁴ The LOSC does not contain a conceptual definition of highly migratory stock. However, Annex I of the LOSC contains a closed list of resources that are legally considered highly migratory. This list includes all tuna and tuna-like fish stocks (marlins, sailfishes, swordfish),⁴⁵ as well as some other species that have similarly wide distribution and migration patterns.

The LOSC does not contain a legal definition of straddling stocks, either. However, following the wording of article 63(2) of LOSC, it is generally understood that a straddling stock refers to “the same stock or stocks of associated species [which] occur both within the exclusive economic zone and in an area beyond and adjacent to the zone”⁴⁶ and that are not included in Annex I of the LOSC. A straddling stock may be

of world highly migratory, straddling and other high seas fishery resources and associated species, FAO Fisheries Technical Paper No. 495 (Rome: FAO, 2006), at 3). Given its independence from other groups of the same species, the stock is usually chosen as a unit for management purposes.

⁴³ According to Munro, Van Houtte and Willman, the fish stocks that are distributed over, or migrate across, areas of the ocean under different jurisdiction, or occur in the high seas, are known as shared stocks (Munro, Van Houtte, and Willmann, *supra* note 7, at 3). Van Houtte, in a previous work, noted that fisheries lawyer use the generic term transboundary resources to refer to fish stocks that can be found on two sides of a boundary, and the specific term shared stocks to refer to those stocks that distribute over, or migrate across, the EEZ of two or more States (Van Houtte, *supra* note 28, at 30). The term shared fish stock has not been used by international practitioners, however. The FAO Code of Conduct refers to transboundary stocks to refer to stocks that occur in the EEZs of two or more States (FAO, Code of Conduct, *supra* note 25, article 7.1.3). In addition, the term “shared resource” has been subject to an extensive debate in the International Law Commission (ILC). For this reason, this thesis follows the terminology of the FAO Code of Conduct.

⁴⁴ It has been noted that the distinction between highly migratory stocks and straddling stocks followed political, rather than biological, imperatives (Munro, Van Houtte and Willmann, *ibid*, at 36, citing William T. Burke, *The New International Law of Fisheries: UNCLOS 1983 and Beyond* (Oxford: Clarendon Press; New York: Oxford University Press, 1994) at 200). Maguire *et al.*, in turn, note that the definition of highly migratory stock is a legal rather than a scientific definition based on the actual migratory behavior of the species (Maguire *et al.*, *supra* note 42, at 4).

⁴⁵ See: Maguire *et al.*, *ibid*, at 10.

⁴⁶ *Ibid*, at 4.

distributed mostly inside the EEZ, or mostly in the high seas; as long as there is directed fishing effort on either side of the EEZ, the stock is considered to be straddling.⁴⁷

It is worth mentioning, at this point, that the limited provisions of the LOSC for the conservation and management of straddling and highly migratory stocks have been further developed by the *United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks* (UNFSA).⁴⁸ The Agreement, however, does not define either of these concepts. There are also stocks that occur only or exclusively in the high seas. These are known as ‘discrete stocks’. Fishing for ‘discrete stocks’ is relatively recent. The fishery was first developed off New Zealand and Australia in the late-1970s and 1980s, and expanded rapidly elsewhere since the 1990s.⁴⁹ Most of the known discrete stocks are deep-water species: orange roughy (*Hoplostethus atlanticus*), oreos (*Allocyttus spp.*, *Neocyttus spp.*, *Pseudocyttus spp.*), alfonsinos (*Beryx spp.*), Patagonian toothfish (*Dissostichus eleginoides*) or armourhead (*Pseudopentaceros spp.*).⁵⁰ It has been noted, however, that “several others may exist for pelagic species.”⁵¹ The term ‘discrete stock’ is also recent and does not appear in the LOSC, although it refers to high seas living resources in Part VII. The term has been subject to criticism, and the term ‘high seas fish stock’ has been preferred.⁵² However, since straddling and highly migratory stocks also have a high seas component, the term discrete stocks will be used in this thesis. High seas fisheries resources in this thesis will encompass, therefore, straddling, highly migratory and discrete stocks.

⁴⁷ *Ibid.*

⁴⁸ See: UNFSA, *supra* note 16.

⁴⁹ Maguire *et al.*, *supra* note 42, at 50.

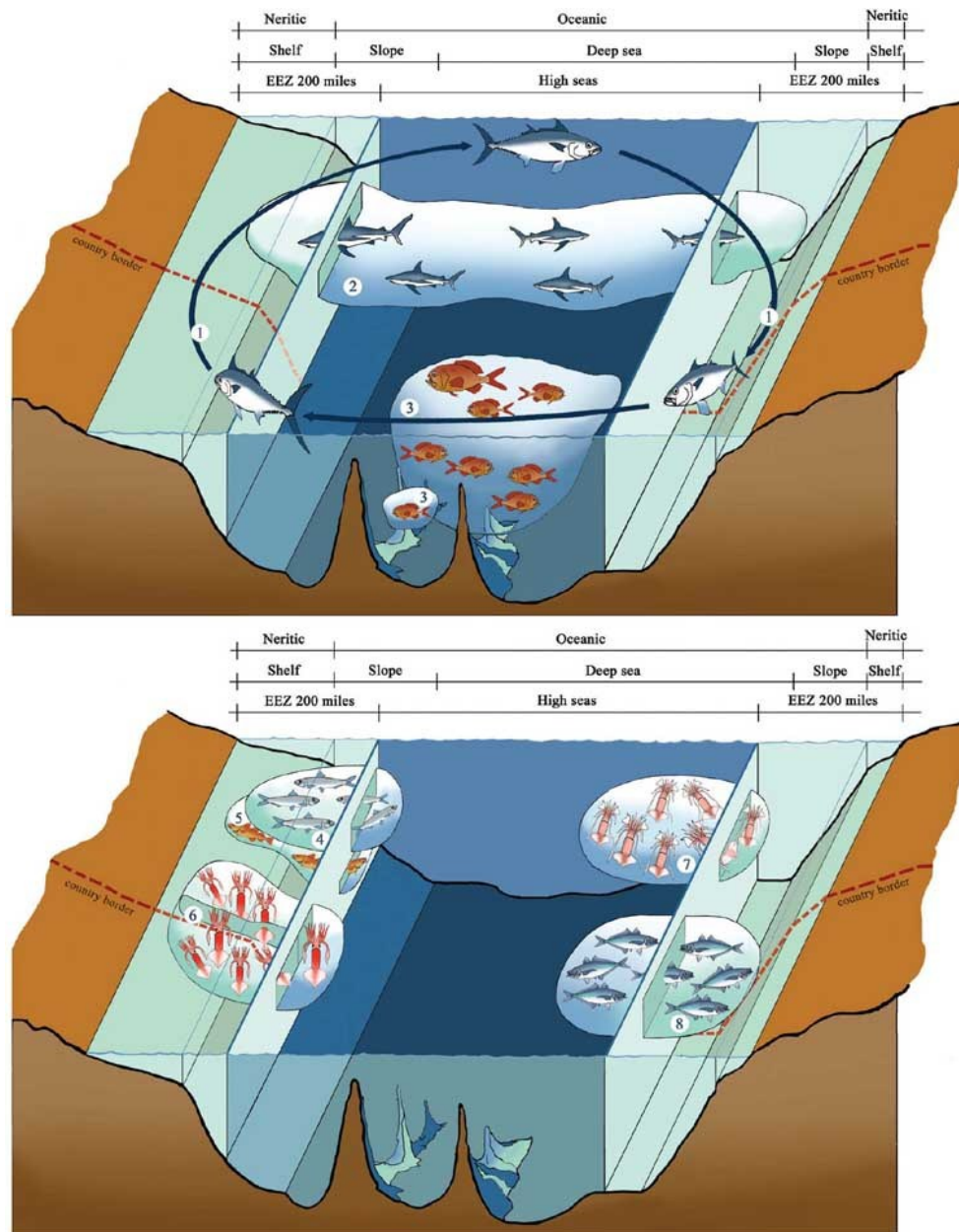
⁵⁰ *Ibid.*, at 49-55. It should be noted, however, that their condition as discrete stock depends on the stock distribution. This has often been source of contention between parties. See, for example: Erik Jaap Molenaar, “South Tasman Rise”, *supra* note 16, at 85.

⁵¹ Maguire *et al.*, *ibid.*, at 49.

⁵² FAO Code of Conduct, *supra* note 25, article 7.1.3; Maguire *et al.*, *ibid.*, at 4. Maguire *et al.* note note that “the discreteness of such stocks is generally unknown (e.g. fish caught on distinct seamounts hundreds or thousands of kilometres apart may not necessarily belong to discrete/separate biological units)” (Maguire *et al.*, *ibid.*). Munro, Van Houtte, and Willmann use the term discrete stock (Munro, Van Houtte, and Willmann, *supra* note 7, at 3 and 55).

Figure 2. Types of stocks occurring partially or entirely in the high seas.

Top panel: 1. Highly Migratory; 2. Straddling (extensive distribution); 3. High seas.
 Bottom panel: 4. Pelagic straddling (mostly within EEZ); 5. Demersal straddling (mostly within EEZ); 6. Straddling (transboundary); 7. Straddling (mostly in the high seas); 8. Straddling (evenly distributed).



Source: Jean-Jacques Maguire, Michael Sissenwine, Jorge Csirke, Richard Grainger, Serge Garcia, *The state of world highly migratory, straddling and other high seas fishery resources and associated species*, FAO Fisheries Technical Paper No. 495 (Rome: FAO, 2006) at 6.

Despite the fact that the LOSC adopts an approach to fisheries jurisdiction that is mainly geographical, it also establishes some particular rules for anadromous stocks,⁵³ catadromous stocks⁵⁴ and marine mammals,⁵⁵ without defining the terms. Anadromous and catadromous species refer to those species that migrate between fresh water and the oceans. Anadromous species utilize freshwater river and streams for spawning and juvenile rearing, and oceanic environments during adult life stages (e.g. salmon and sturgeon); while catadromous species spawn in the ocean and use freshwater habitats during adult life stages (e.g. most eels). Marine mammals, in turn, are a diverse group of mammals that are primarily ocean-dwelling or dependent on the ocean for food. They include cetaceans (whales, dolphins and porpoises) and pinnipeds (seals, sea lions, and walruses). Anadromous and catadromous species, and marine mammals may, as well, have high seas distribution.

This thesis focuses on TAC and allocation of fishing opportunities for stocks that have a high seas component (i.e., straddling stocks, highly migratory stocks and discrete stocks) with the exception of anadromous and catadromous stocks and marine mammals. It does, therefore, not address the management of stocks occurring within the EEZ of two or more States (i.e. transboundary resources).

The Economic Importance of High Seas Fisheries Resources

High seas areas cover approximately 60% of the oceans.⁵⁶ However, their productivity (or at least the productivity of known species with readily available and cost-effective technology) has been considered, traditionally, much less than in areas of the EEZ. The precise economic importance of high seas fisheries is hard to establish.⁵⁷ The main reason for this is the structure of the catch statistical system. Marine catches are reported by countries to the Food and Agricultural Organization of the United Nations (FAO) according to statistical areas for fishery purposes established in the 1950s and thus, before the codification of the concept of the EEZs in the LOSC in 1982. Because

⁵³ LOSC, article 66.

⁵⁴ LOSC, article 67.

⁵⁵ LOSC, article 65.

⁵⁶ IUCN, *10 Principles for High Seas Governance*, October 2008, online: IUCN <www.iucn.org>.

⁵⁷ Munro, Van Houtte and Willmann, *supra* note 7, at 6; FAO, *SOFIA* 2008, *supra* note 1, at 14.

the boundaries of the FAO statistical areas and of the EEZs do not correspond, the data on catches in EEZ and high seas are aggregated. As a consequence, the data on catches in the high seas cannot be obtained from the data submitted to FAO.⁵⁸ FAO has initiated a project in collaboration with RFMOs on the modification of statistical areas, but this project is ongoing and has yet to show results.⁵⁹

Despite this shortcoming, “there is enough evidence to indicate that the significance of shared fish stocks in world capture fisheries is decidedly non-trivial.”⁶⁰ In 2003, Munro *et al.*, estimated that the total annual harvest of highly migratory and straddling stocks represented approximately 20% of the total harvest of world marine capture fisheries.⁶¹ More recently, Cullis-Suzuki and Pauly have estimated that catches in the high seas represents approximately 15% of the world catches.⁶²

The proportion of world catches coming from high seas fisheries may still grow, as a consequence of an increased depletion of fisheries in the EEZs and advances in technology that makes high seas fishing (and particularly deep-sea fishing) possible and commercially viable. For example, FAO has recently estimated at 133 the number of species classified as deep-water (thus presumably discrete stocks). This is more than double the number of the first classification based on 1999 data.⁶³ In addition, catches of the highly migratory stocks of tuna continue to grow.⁶⁴

Most importantly, several high seas fish resources have a significant commercial value. That is particularly the case with tuna stocks. While tuna catches represent less than 5% of the world catch, “their landed value has been estimated to account for nearly 20 percent of the global marine total.”⁶⁵ Orange roughy, a deep-sea species that may be classified as a straddling or a discrete stock, is also an economically important species and thus object of increasing demand.

⁵⁸ FAO, SOFIA 2008, *ibid*, at 14.

⁵⁹ *Ibid*, at 15.

⁶⁰ Munro, Van Houtte and Willmann, *supra* note 7, at 6. The authors used the term “shared fish stock” to refer to transboundary, straddling, highly migratory and discrete stocks.

⁶¹ *Ibid*, at 7.

⁶² Cullis-Suzuki and Pauly, *supra* note 1.

⁶³ FAO, SOFIA 2008, *supra* note 1, at 14.

⁶⁴ *Ibid*, at 12.

⁶⁵ Maguire *et al.*, *supra* note 42, at 10.

These studies show, therefore, that high seas fish stocks are now, and are expected to be in the future, under considerable fishing pressure.

Regional Fisheries Bodies, Organizations and Arrangements

The LOSC relies, for the conservation and management of high seas fish resources, on States cooperation.⁶⁶ Cooperative regimes are usually established at the regional level and institutionalized through regional fisheries organizations or bodies, or formalized through regional fisheries arrangements.⁶⁷

A regional fisheries body has been understood as a

(...) mechanism through which three or more States or international organizations that are parties to an international fishery agreement or arrangement collaboratively engage each other in multilateral management of fishery affairs related to transboundary, straddling, highly or high seas migratory stocks, through the collection and provision of scientific information and data, serving as a technical and policy forum, or taking decisions pertaining to the development and conservation, management and responsible utilization of the resources.⁶⁸

FAO lists currently 42 regional fisheries bodies.⁶⁹ These bodies differ in their mandates, functions, structure and financial resources.⁷⁰ Most importantly for this thesis, many of the regional fisheries bodies do not have a mandate to adopt conservation and management measures, i.e., they are advisory bodies but without management authority.⁷¹ The regional fisheries bodies that have such a mandate are known as Regional Fisheries Management Organizations (RFMOs). The FAO defines RFMOs as

⁶⁶ LOSC, article 118: “States shall cooperate with each other in the conservation and management of living resources in the areas of the high seas. States whose nationals exploit identical living resources, or different living resources in the same area, shall enter into negotiations with a view to taking the measures necessary for the conservation of the living resources concerned. They shall, as appropriate, cooperate to establish subregional or regional fisheries organizations to this end.”

⁶⁷ According to article 118 of the LOSC, “States shall cooperate with each other in the conservation and management of living resources in the areas of the high seas. States whose nationals exploit identical living resources, or different living resources in the same area, shall enter into negotiations with a view to taking the measures necessary for the conservation of the living resources concerned. They shall, as appropriate, cooperate to establish subregional or regional fisheries organizations to this end.”

⁶⁸ FAO, *Report of the Meeting of FAO and non-FAO Regional Fishery Bodies or Arrangements*, Rome, 11-12 February 1999, FAO Fisheries Report No. 597, FIPL/R597 (Rome: FAO, 1999), Appendix E, “Major Issues Affecting The Performance of Regional Fishery Bodies”, para. 1, footnote 3.

⁶⁹ See online: FAO <www.fao.org/fishery/rfb/search/en>.

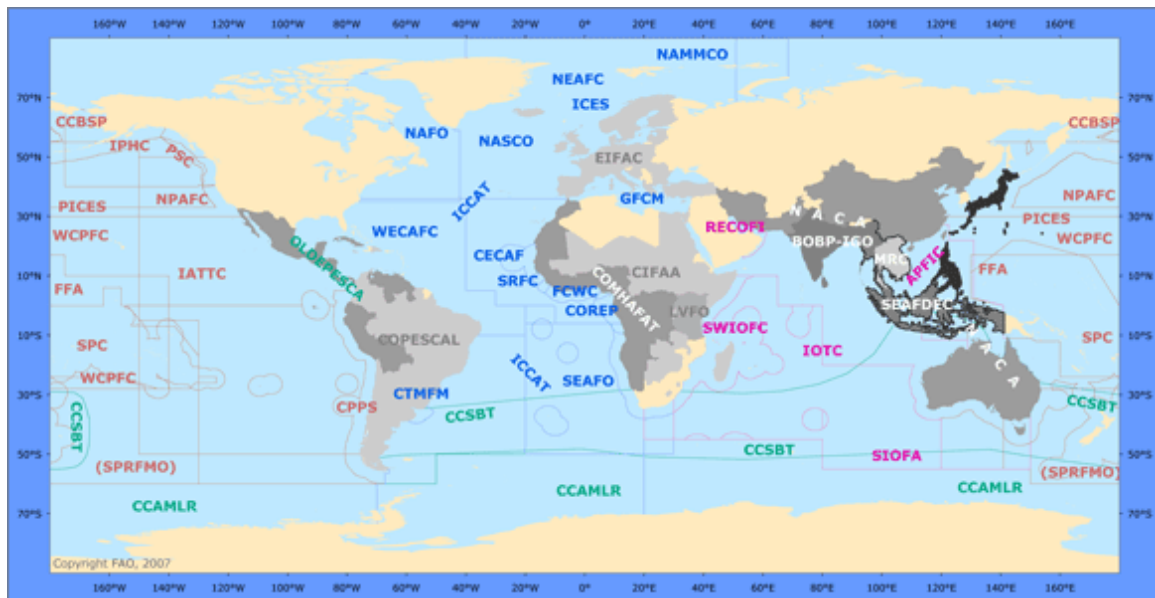
⁷⁰ Judith Swan, *Regional Fishery Bodies and Governance: Issues, Actions and Future Directions*, FAO Fisheries Circular No. 959 (Rome: FAO, 2000), at 1.

⁷¹ Of the regional bodies recognized by FAO, 23 have only advisory mandate. See: *supra* note 69.

“intergovernmental fisheries organizations or arrangements, as appropriate, that have the competence to establish fisheries conservation and management measures”.⁷²

The difference between an organization and an arrangement lies in the institutional setting: a RFMO is an international organization with a specific operational structure (usually consisting of a Commission or Meeting of the Parties, Secretariat, Scientific Committee, Compliance Committee, and Financial or Administration Committee), while a regional fisheries management arrangement is a management agreement between States that does not consider such a structure.

Figure 3. Regional Fisheries Bodies



FAO. © 2008-2010. RFB web site. Regional Fishery Bodies (RFB). In: *FAO Fisheries and Aquaculture Department* [online]. Rome. Updated 20 October 2008. [Cited 26 August 2010] <<http://www.fao.org/fishery/rfb/en>>.

The role and importance of regional fisheries bodies, and of RFMOs and regional fisheries management arrangements in particular, as vehicles for oceans governance has

⁷² FAO, *International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*, adopted by FAO’s Committee on Fisheries (COFI) on 2 March 2001 and endorsed by the FAO Council on 23 June 2001, para. 6(c), online: FAO <<http://www.fao.org/fishery/en>> [hereafter IPOA-IUU]. The definition has been recently included in the *FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*, approved by the 36th Conference of FAO held in Rome, 18-23 November 2009, online: FAO <<http://www.fao.org/fishery/en>> [hereafter FAO Port State Measures Agreement].

been emphasized in the 1993 FAO Agreement,⁷³ in the 1995 Code of Conduct,⁷⁴ the 1995 Rome Consensus on World Fisheries,⁷⁵ the 1995 Kyoto Declaration and Plan of Action on the Sustainable Contribution of Fisheries to Food Security,⁷⁶ and in UNFSA.⁷⁷ It is widely accepted that RFMOs and agreements, as the primary mechanisms for achieving

⁷³ *Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels in the High Seas*, November 24, 1993, adopted by the FAO Conference at its 27th Session, 33 ILM 968 (1994), 2004 ATS 26 [hereafter FAO Compliance Agreement] preamble, para. 7: “The Parties to this Agreement, Calling upon States which do not participate in global, regional or subregional fisheries organizations or arrangements to join or, as appropriate, to enter into understandings with such organizations or with parties to such organizations or arrangements with a view to achieving compliance with international conservation and management measures.”

⁷⁴ FAO Code of Conduct, *supra* note 25, para. 7.1.3: “For transboundary fish stocks, straddling fish stocks, highly migratory fish stocks and high seas fish stocks, where these are exploited by two or more States, the States concerned, including the relevant coastal States in the case of straddling and highly migratory stocks, should cooperate to ensure effective conservation and management of the resources. This should be achieved, where appropriate, through the establishment of a bilateral, subregional or regional fisheries organization or arrangement.” The resolution of the Conference adopting the FAO Code of Conduct also included a paragraph stating that the Conference “[u]rges FAO to strengthen Regional Fisheries Bodies in order to deal more effectively with fisheries conservation and management issues in support of subregional, regional and global cooperation and coordination in fisheries” (FAO Code of Conduct, *ibid*, Annex 2, para. 7).

⁷⁵ The Rome Consensus on World Fisheries urges governments and international organizations to take prompt action to strengthen and support regional, sub-regional, and national fisheries organizations and arrangements for implementing conservation and management measures (FAO, *Rome Consensus on World Fisheries*, adopted by the FAO Ministerial Conference on Fisheries, Rome, 14-15 March 1995, Non-serial publications AC441/E, online: FAO <<http://www.fao.org/documents>>).

⁷⁶ The Kyoto Plan of Action on Sustainable Contribution of Fisheries to Food Security includes, among other, the following actions: enhance subregional and regional cooperation and establish, where it is considered appropriate, subregional and regional fishery conservation and management organizations or arrangements for straddling fish stocks and highly migratory fish stocks; and cooperate to strengthen, where necessary, existing subregional and regional fishery conservation and management organizations and arrangements in order to carry out their assigned tasks (FAO, *Kyoto Declaration and Plan of Action on the Sustainable Contribution of Fisheries to Food Security*, adopted by the International Conference on the Sustainable Contribution of Fisheries to Food Security, hosted by the Government of Japan in cooperation with FAO at Kyoto, 4 to 9 December 1995, Plan of Action para. 2, online: FAO <<http://www.fao.org/documents>>).

⁷⁷ According to article 8 of UNFSA, coastal States and States fishing on the high seas shall, in accordance with the LOSC, pursue cooperation in relation to straddling fish stocks and highly migratory fish stocks either directly or through appropriate subregional or regional fisheries management organizations or arrangements, taking into account the specific characteristics of the subregion or region, to ensure effective conservation and management of such stocks. According to paragraph 5, “where there is no subregional or regional fisheries management organization or arrangement to establish conservation and management measures for a particular straddling fish stock or highly migratory fish stock, relevant coastal States and States fishing on the high seas for such stock in the subregion or region shall cooperate to establish such an organization or enter into other appropriate arrangements to ensure conservation and management of such stock and shall participate in the work of the organization or arrangement.” Paragraph 4 adds that “only those States which are members of such an organization or participants in such an arrangement, or which agree to apply the conservation and management measures established by such organization or arrangement, shall have access to the fishery resources to which those measures apply.”

cooperation among high seas fishing countries, play a critical role in the global system of fisheries governance.⁷⁸

Furthermore, there have been continuous calls to strengthen the role of RFMOs and to improve their performance “in accordance with the demands of strengthened international fishery instruments aimed at better conservation and management of fishery resources.”⁷⁹ According to article 13 of UNFSA, States “shall cooperate to strengthen existing subregional and regional fisheries management organizations and arrangements in order to improve their effectiveness in establishing and implementing conservation and management measures for straddling fish stocks and highly migratory fish stocks.” As a consequence of this perception, there have been various initiatives, studies, reports and guidelines⁸⁰ directed to improving the performance of RFMOs, including various RFMOs performance reviews.⁸¹

This thesis focuses on the work of RFMOs in relation to one particular conservation and management measure. Nevertheless, not all the RFMOs recognized by FAO have been considered in the analysis. Some RFMOs do not have jurisdiction on the high seas,⁸² some have jurisdiction over anadromous species⁸³ or marine mammals,⁸⁴ and

⁷⁸ Lodge *et al.*, *supra* note 11, at 1.

⁷⁹ Lodge *et al.*, *ibid.*, at vii.

⁸⁰ See, for example: Lodge *et al.*, *ibid.*; Mooney-Seus and Rosenberg, *supra* note 3; Willock and Lack, *supra* note 10; Cullis-Suzuki and Pauly, *supra* note 1.

⁸¹ The RFMOs that have undertaken a performance review are: CCAMLR, ICCAT, CCSBT, NEAFC, and IOTC. ICCAT, NEAFC and CCAMLR had a performance review undertaken by an expert panel that included external reviewers. CCSBT had a review undertaken by an international committee, reviewed by an external expert. The respective reports are: CCAMLR, *Performance Review Panel Report*, 1 September 2008, online: CCAMLR <<http://www.ccamlr.org>> [hereafter CCAMLR Performance Review Report]; G.D. Hurry, M. Hayashi and J. J. Maguire, *Report of the Independent Review, International Commission for the Conservation of Atlantic Tunas* (ICCAT), PLE-106/2008, Part I, section 4(4), [hereafter ICCAT Performance Review Report]; CCSBT, *Report of the Performance Review Working Group*, Canberra, Australia, 3–4 July 2008, and *Report of the Independent Expert*, September 2008, online: CCSBT <<http://www.ccsbt.org>> [hereafter CCSBT Performance Review Report]; NEAFC, *Report of the Performance Review Panel*, November 2006, online: NEAFC <<http://www.neafc.org>> [hereafter NEAFC Performance Review Report]; and IOTC, *Report of the Performance Review Panel*, January 2009, online: IOTC <<http://www.iotc.org>> [hereafter IOTC Performance Review Report]. Among the organizations that have postpone the RFMO performance review, for different reasons, are NAFO, IATTC and WCPFC. Some other organizations have adopted terms of reference for performance reviews that are currently ongoing. SEAFO has recently approved the terms of reference for a performance review that will be undertaken in 2010. These terms of reference were drafted mostly considering the terms of reference of CCAMLR, which has no allocation procedures in place. As a result, allocation procedures are not in the terms of reference of this performance review.

⁸² That is the case of the Lake Victoria Fisheries Organization (LVFO) and Regional Commission for Fisheries (RECOFI).

two have jurisdiction over enclosed seas.⁸⁵ For these reasons, they will not be the focus of this thesis. The focus will be the on the ten RFMOs that have jurisdiction over highly migratory stocks, straddling stocks or discrete stocks.

The RFMOs considered in this thesis that have jurisdiction over highly migratory stocks, or tuna RFMOs, are the Inter-American Tropical Tuna Commission (IATTC),⁸⁶ the International Convention for the Conservation of Atlantic Tunas (ICCAT),⁸⁷ the Indian Ocean Tuna Commission (IOTC),⁸⁸ the Commission for the Conservation of Southern Bluefin Tuna (CCSBT),⁸⁹ and the Western Central Pacific Fisheries Commission (WCPFC).⁹⁰ The selected RFMOs with jurisdiction over straddling stocks, and in some cases discrete stocks, are the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR),⁹¹ the Northwest Atlantic Fisheries Organization (NAFO),⁹² the North East Atlantic Fisheries Commission (NEAFC),⁹³ the South East

⁸³ That is the case of the North Pacific Anadromous Fisheries Commission (NPAFC), the Pacific Salmon Commission (PSC), and the North Atlantic Salmon Conservation Organization (NASCO).

⁸⁴ That is the case of the International Whaling Commission (IWC).

⁸⁵ That is the case of the Convention on the Conservation and Management of Pollock Resources in the Central Bering Sea (CCBSP) and General Fisheries Commission for the Mediterranean (GFCM).

⁸⁶ Established by the *Convention for the Establishment of an Inter-American Tropical Tuna Commission*, United States of America and Republic of Costa Rica, 31 May 1949, TIAS 2044, 1 UST 230, 80 UNTS 3, modified by the *Convention for the Strengthening of the Inter-American Tropical Tuna Commission established by the 1949 Convention between the United States of America and the Republic of Costa Rica*, 27 July 2003 (entered into force 27 August 2010), online: IATTC <<http://www.iattc.org>> [hereafter IATTC Convention].

⁸⁷ Established by *International Convention for the Conservation of Atlantic Tunas*, 14 May 1966, 20 UST 2887; 673 UNTS 63 (entered into force 21 March 1969), amended by the *Protocol of Paris to Amend the International Convention for the Conservation of Atlantic Tunas*, 10 July 1984 (entered into force 14 December 1997), and the *Madrid Protocol to Amend Paragraph 2 of Article X of the International Convention for the Conservation of Atlantic Tunas*, 5 June 1992 (entered into force 10 March 2005) [hereafter ICCAT Convention].

⁸⁸ Established by the Agreement for the Establishment of the Indian Ocean Tuna Commission, 25 November 1993, 1927 U.N.T.S. 329 [hereafter IOTC Convention].

⁸⁹ Established by the Convention for the Conservation of Southern Bluefin Tuna, 10 May 1993, 1819 UNTS 360; 1994 ATS No. 16 [hereafter CCSBT Convention].

⁹⁰ Established by the WCPFC Convention, *supra* note 24.

⁹¹ Established by the Convention on the Conservation of Antarctic Marine Living Resources, 20 May 1980, 1329 UNTS 48; 19 ILM 841 (1980) [hereafter CCAMLR Convention].

⁹² Established by the Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, 24 October 1978, 1135 UNTS 369 (entered into force 1 January 1979) [hereafter NAFO Convention].

⁹³ Established by the Convention on Future Multilateral Co-operation in North-East Atlantic Fisheries, 18 November 1980, 1285 UNTS 129; 1981 OJ (L 227) 21 (entered into force 17 March 1982) [hereafter NEAFC Convention].

Atlantic Fisheries Organization (SEAFO),⁹⁴ and the recently adopted South Pacific Organization (SPRFM, not yet in force).⁹⁵

The selected RFMOs differ in several respects. Many pre-date the LOSC,⁹⁶ while others have been established in recent years.⁹⁷ Most are non-FAO bodies, while one is a fishery organization adopted under Article XIV of the FAO Constitution.⁹⁸ Some regulate only one stock,⁹⁹ while many regulate all the highly migratory stocks, or all the straddling stocks, in their area of competence. Their membership also varies both in number and composition. Some have a very limited membership,¹⁰⁰ while others have more than 25 member States.¹⁰¹ In some cases the member States are predominantly developed States,¹⁰² while in others there is a strong participation of developing States.¹⁰³

It should be pointed out that some of these organizations have been given more attention because of their progress in adopting allocation frameworks or guidelines, and allocation practices.¹⁰⁴ In particular, the analyses of this thesis focus on the efforts undertaken by NAFO, ICCAT, CCSBT and WCPFC. Similarly, the research for this thesis included the allocation keys and agreements for different stocks under the mandate of these RFMOs. However, only a sample of those cases is referred to in the following chapters.

Conservation and Management Measures

As noted earlier, RFMOs are a particular type of regional fishery bodies: organizations that have a mandate to adopt binding conservation and management

⁹⁴ Established by the Convention on the Conservation and Management of Fishery Resources in the South East Atlantic Ocean, 20 April 2001, 41 I.L.M. 257 (2002) [hereafter SEAFO Convention].

⁹⁵ Established by the SPRFMO Convention, *supra* note 24.

⁹⁶ NAFO, NEAFC, IATTC, ICCAT, IOTC, CCAMLR.

⁹⁷ CCSBT, WCPFC, SEAFO, SPRFMO.

⁹⁸ That is the case of IOTC.

⁹⁹ That is the case of CCSBT, which has jurisdiction exclusively over the Southern bluefin tuna stock.

¹⁰⁰ For example, SEAFO has 6 members (Angola, European Union, Japan, Namibia, Norway, and South Africa); CCSBT has 6 members (Australia, Japan, New Zealand, the Republic of Korea, Indonesia, and the fishing entity of Taiwan, which is a member of the Extended Commission of the CCSBT).

¹⁰¹ ICCAT has 48 members; IOTC has 28 members; WCPFC has 25 members and 7 participating territories.

¹⁰² That is the case, for example, of NAFO and NEAFC.

¹⁰³ That is the case, for example, for ICCAT, WCPFC, and IATTC.

¹⁰⁴ Among them are NAFO, ICCAT, and CCSBT.

measures for the stocks under their jurisdiction. A few words on conservation and management measures are therefore required.

In an unregulated ocean, the enormous wealth of living marine resources is, in theory, available to everyone and, in practice, obtained by those who engage in fishing activities and to extent of their engagement in those activities. Because living marine resources have proven to be exhaustible in face of the incredible fishing capacities developed by modern technology, that *laissez-faire* approach is a matter of the past. Restrictions and limitations are necessary to ensure that fish stocks are exploited at levels that are sustainable, i.e., in a manner consistent with their renewal. Those restrictions and limitations are known as conservation and management measures.

FAO distinguishes three options for regulating fisheries: a) technical measures (e.g. gear restrictions, area and time restrictions, marine protected areas, minimum size and maturity restrictions); b) input (effort) control (e.g. restrictions on the number of fishing units through limiting the number of licenses or permits, restrictions on the amount of time units can spend fishing, and restrictions on the size of vessels and/or gear); and c) output (catch) control (e.g. TACs, or quotas).¹⁰⁵

All restrictions on fishing activities have a consequence in the way benefits and burdens of conservation are shared among users; i.e., they all have distribution or allocation implications.¹⁰⁶ However, there are two measures that not only have an allocation implication but also require a precise allocation decision: the quota system, and the limitation of fishing effort.

This thesis focuses on the legal framework for, and regional practices of, TACs or quotas in international fisheries management. Some mention is also made to conservation and management measures directed to limit fishing effort by restricting the number of fishing units (number of vessels or time spent fishing). The term “fishing opportunities”

¹⁰⁵ FAO, *Fisheries Management: Technical Guidelines or Responsible Fisheries Nr. 4* (Rome: FAO, 1997), at 46-51.

¹⁰⁶ For example, a minimum size of the mesh for the capture of a specific stock affects differently those who fish only for that stock, then those that fish simultaneously for another stock of different size.

is thus used to refer to the opportunity to engage in a high seas fishery that has been limited through allowable catch or allowable effort.¹⁰⁷

There are mainly two ways to distribute the limited living marine resources. One way is “to let free competition among fishing nations determine the share of each nation”.¹⁰⁸ According to this approach, the “share of each State is a function of the extent to which it undertakes such operations”¹⁰⁹, which in turn depends on the fishing operations of the other participants. In other words, it is a form of “first come-first served” system to decide who gets what.

A second method to allocate fishing opportunities in the high seas is to agree on specific limits to the fishing opportunities of each State. In theory, this limit could be agreed by auction, lottery, or an administrative (authoritative) decision. The decision can, in turn, take different forms: limiting fishing effort by freezing the existing fishing effort or catch to existing levels; by freezing the effort or catch to the levels of a reference period; or by limiting the effort or catch to a specified quantity (expressed either in terms of percentage of the TAC or in tonnage). All these forms have been used, and are still used, in international fisheries management. However, it is the latter one (establishing a specified effort or catch limit) which is the generally preferred management measure.

In international fisheries management, the TAC is allocated to States. In theory, it is possible to think of a management regime that allocates the high seas fisheries quotas to fishing companies directly. Such a model has been proposed,¹¹⁰ but has not been implemented. States, however, mostly do not engage in fishing activities directly. Thus, it is the States’ responsibility to determine how the national quota or effort will be distributed among their fishing companies and communities. This latter aspect is mostly not considered part of the international regime. Beside a few references precisely to note

¹⁰⁷ Some authors use other terms to refer to the possibility of engaging in fishing activities within a TAC or total allowable effort adopted by a RFMO: “fishing possibilities”, “fishing rights”, or “participatory rights” (Willock and Lack, *supra* note 10, at 26; Agnew et al., *supra* note 10, at 5).

¹⁰⁸ Albert W. Koers, *International Regulation of Marine Fisheries: A Study of Regional Fisheries Organizations* (West Byfleet: Fishing News, c. 1973), at 65.

¹⁰⁹ Koers, *ibid.*

¹¹⁰ See, for example: Allen, *supra* note 2, at 38; Richard Barnes, “Entitlement to Marine Living Resources” in Alex G. Oude Elferink and Erik J. Molenaar (eds.), *The International Legal Regime of Areas beyond National Jurisdiction: Current and Future Developments* (Leiden: Martinus Nijhoff Publishers, 2010) 83, at 107. See also: *infra* note 123 and accompanying text.

this particular situation, the national implementation of quotas allocated by RFMOs will not be addressed in this thesis.

The effectiveness of TAC and allocation (as well as any conservation and management measure) in achieving sustainable fisheries supposes two relevant elements. First, it supposes that the relevant scientific data is available in a timely manner for the adoption of the TAC. And secondly, it supposes that the allocated quotas, and thus the TAC, are complied with. This, in turn, assumes that members of the RFMO comply with their allocated quotas, and that non-members to the RFMO abstain from fishing, or fish within the fishing opportunities assigned to non-members. As will be seen in detail in the following chapters, the fishing opportunities for new entrants to the fishery is indeed one of the key allocation conflicts faced by RFMOs.

Ensuring that allocations are complied with by both members and non-members of RFMOs is an endeavour that faces significant legal and practical challenges, as has been widely addressed by the literature.¹¹¹ The international community, both at the regional and global level, has undertaken various initiatives in this respect. Examples thereof are: the FAO Plan of Action to prevent, deter, and eliminate illegal, unreported and unregulated fishing (IPOA-IUU);¹¹² FAO International the FAO Compliance Agreement;¹¹³ the RFMOs “black lists” of vessels engaging in IUU fishing, and “white lists” of vessels authorized to fish in the RFMO area;¹¹⁴ the FAO Global Record of Fishing Vessels, Refrigerated Vessels and Fishing Support Vessels;¹¹⁵ the recently adopted FAO Port State Agreement;¹¹⁶ trade-related measures adopted by RFMOs,

¹¹¹ See: High Seas Task Force, *Closing the Net: Stopping illegal fishing on the high seas*, Governments of Australia, Canada, Chile, Namibia, New Zealand, and the United Kingdom, WWF, IUCN and the Earth Institute at Columbia University (Bellegarde, France: Sadag SA, 2006); Rosemary Rayfuse, *Non-Flag State Enforcement in High Seas Fisheries* (Leiden; Boston: Martinus Nijhoff Publishers, 2004); Rosemary Rayfuse, “The Anthropocene, Autopoiesis and the Disingenuousness of the Genuine Link: Addressing Enforcement Gaps in the Legal Regime for Areas Beyond National Jurisdiction” in Alex G. Oude Elferink and Erik J. Molenaar (eds.), *The International Legal Regime of Areas Beyond National Jurisdiction: Current and Future Developments* (Boston: Martinus Nijhoff Publishers, 2010) 165.

¹¹² FAO, IPOA-IUU, *supra* note 72.

¹¹³ FAO Compliance Agreement, *supra* note 73.

¹¹⁴ Rayfuse, “The Anthropocene, Autopoiesis and the Disingenuousness of the Genuine Link”, *supra* note 111, at 179-180.

¹¹⁵ Lugten, as cited by Rayfuse, *ibid*, at 180.

¹¹⁶ FAO Port State Measures Agreement, *supra* note 72.

including catch documentation schemes and import or export prohibitions;¹¹⁷ and the FAO Expert Consultation on Flag State Performance.¹¹⁸ These initiatives, and in particular those directed to non-members of RFMOs, are necessarily linked to allocation decisions. Nevertheless, they will not be analyzed further in this thesis. Indeed, the interest of this thesis is the framework for the distribution of fishing opportunities, and not the enforcement of any given distribution.

Sharing Benefits of the Oceans: A Wider Picture

Addressing allocation of fishing opportunities, as explained in the preceding section, implies addressing the question of how to distribute access to limited fishing resources, or how to share limited fish resources. Traditionally, the benefits of the ocean (or the participation in the wealth of the ocean) have been reserved to those who actually engage in fishing activities. This is the assumption on which this chapter has been written.

It has been proposed, however, that for purposes of sharing marine resources, the wealth of the ocean can be divorced from the actual fishing activity.¹¹⁹ An example of such an arrangement, usually mentioned in the literature, is the North Pacific Fur Seal Treaty of 1911.¹²⁰ Japan, Canada, USA and Russia were involved in North Pacific Seal hunting, which by the end of the 19th century showed clear signs of overexploitation. The four parties agreed to prohibit pelagic sealing, a measure that affected mostly the countries that hunted seals in the open sea (Japan and Canada). The treaty, however, compensated Japan and Canada for their loss by providing that USA and USSR must

¹¹⁷ Rayfuse, “The Anthropocene, Autopoiesis and the Disingenuousness of the Genuine Link”, *supra* note 111, at 179-180.

¹¹⁸ FAO, *Report of the Expert Consultation on Flag State Performance*, 23- 26 June 2009, Rome, FAO Fisheries and Aquaculture Report No. 918 (Rome: FAO, 2009) online: FAO <<http://www.fao.org/fishery/en>>.

¹¹⁹ F. Christy Jr., cited by Koers, *supra* note 108, at 69; Gordon Munro, “The Management of Shared Fish Stocks”, in FAO, *Papers presented at the Norway-FAO Expert Consultation on the Management of Shared Fish Stocks, Bergen, Norway, 7-10 October 2002*, FAO Fisheries Report Nr. 695Suppl. (Rome: FAO, 2003) 2, at 12.

¹²⁰ Convention between the United States of America, His Majesty the King of the United Kingdom of Great Britain and Ireland, and of the British Dominions beyond the Seas, Emperor of India, His Majesty the Emperor of Japan, and His Majesty the Emperor of all the Russias, for the Preservation and Protection of Fur Seals (7 July 1911) Treaty Series 564.

deliver a certain percentage of the annual harvested skins.¹²¹ Thus, Japan and Canada participated in the economic benefits of the fishery, although they did not actively participate in it.

Following the example of the Fur Seal Convention, it has been suggested that divorcing the benefits of the ocean from the actual fishing activity would allow States to broaden the scope of negotiation through the establishment of side payments or negotiation facilitators.¹²² This, in turn, would improve the possibilities of achieving stable cooperative arrangements.

To date, however, there is no other arrangement that explicitly follows the example of the North Pacific Fur Seal Commission. A few reasons can be suggested for that: such a system ignores the non-monetary benefits associated with fishing activities (employment, food supply, etc.); and it does not take into account the need to establish an appropriate international structure.

A similar idea has been proposed, not for a single stock or at the regional level, but on a global scale. In 2007, Crothers and Nelson argued that the existing governance arrangements are inadequate and that overfishing on the high seas is a result of the lack of incentives for States or RFMOs to act responsibly in dealing with the effects of an overcapitalized fisheries sector. They offered an alternative of a governance structure based on sole owners (High Seas Fisheries Corporations) with explicit and exclusive authority to manage the high seas fisheries under their licence, including the allocation of fishing opportunities directly to fishing companies. The High Seas Fisheries Corporations would be owned collectively by States, which therefore would benefit from high seas fishing according to their participation in the corporation.¹²³

¹²¹ See: Koers, *supra* note 108, at 85-87; Munro, *supra* note 119, at 14. According to the 1911 Treaty, *ibid*, of the total number of sealskins take annually on the islands or shores of the waters defined in article I under the jurisdiction of USA, this country should deliver 15% gross in number and value to each the Canadian and the Japanese Government (article X). Similarly, of the total number of sealskins taken annually on the islands or shores of the waters defined in article I under the jurisdiction of Russia, this country should deliver 15% gross in number and value to each the Canadian and the Japanese Government (article XII). In turn, of the total number of sealskins taken annually in the islands or shores of the waters defined in article I subject to the jurisdiction of Japan, this country should deliver 10% gross in number and value thereof to each the USA, the Canadian and the Russian Governments (article XIII). The same rule was applicable to Canada in case any seal herd resorts to any island or shores of the waters defined in article I subject to its jurisdiction (article XIV).

¹²² Munro, *supra* note 119.

¹²³ See: Allen, *supra* note 2, at 5.

Ideas similar to this have been presented in the past as well.¹²⁴ However, so far such proposals have not had political support.¹²⁵ The idea of having a single global authority responsible for the management of high seas fisheries was suggested during the Third United Nations Conference on the Law of the Sea, which led to the adoption of the LOSC. During the conference, some delegations suggested that high seas fisheries should be considered the common heritage of mankind and put under the same regime and under the jurisdiction of the Seabed Authority.¹²⁶ As noted by Rayfuse and Warner:

[a] [common heritage of mankind] regime therefore differs fundamentally from a common property regime in that it allows all states to participate in the benefits gained from exploitation of a resource even if they do not or cannot participate in that exploitation.¹²⁷

This proposal was, however, blatantly rejected.

It is important to keep those views in mind when analyzing alternatives for an effective regime for the high seas. At least for the moment, however, there does not seem to be any support for models of global or centralized management. For this reason, this thesis does not focus on such models. Instead, it addresses the potential role of equity in allocation of fishing opportunities taking as an initial point of analysis the current high seas fisheries model based on cooperative regimes institutionalized through RFMOs.

¹²⁴ A similar idea was proposed for tuna fisheries already in 1979, by Joseph and Greenough (Allen, *ibid*, at 5).

¹²⁵ The proposal has generated some academic support, however. Hilborn, for example, argues that “the existing governance regimes for high seas fisheries have failed totally. Despite the existence of numerous regional management organizations (RMOs) as mandated by the UN fishing agreements, none of them regulates high seas fisheries to any effect”. In order to achieve effective high seas governance, he implies the need for governments to pass their role in regulating high seas fisheries to a single organization that would set the rules for high seas fisheries with the intention of maximizing their value for all people. His proposal is based on the one presented by Crothers and Nelson. (Hilborn, cited by Allen, *ibid*, at 5).

¹²⁶ See: Francisco Orrego Vicuña, *The Changing International Law of High Seas Fisheries* (Cambridge, U.K.; New York: Cambridge University Press, 1999) at 10, footnote 26, and at 46. See also: United Nations Division of Oceans Affairs and Law of the Sea DOALOS, *The Regime for High Seas Fisheries: Status and Prospectus* (New York: United Nations, 1992) para. 7, at 7.

¹²⁷ Rosemary Rayfuse and Robin Warner, “Securing a Sustainable Future for the Oceans Beyond National Jurisdiction: The Legal Basis for an Integrated Cross-Sectoral Regime for High Seas Governance for the 21st Century” (2008) 23 Int’l J. Mar. & Coast. L. 399, at 409.

Chapter 2. TAC and Allocation: Its Origin and Evolution in International Fisheries Management

The adoption of TAC and national allocations as conservation and management measures is generally considered best practice in fisheries management. However, its consideration as a management tool is relatively recent, and the evolution of its legal recognition and practical implementation reveals that it is still maturing as a management measure. The objective of this chapter is to describe that evolution, both in global and regional fora.

The chapter begins with an account of the initiatives and studies that introduced TAC and allocations to modern fisheries management, describing its theoretical foundations, its main objectives, the assumptions under which it was designed, and the challenges foreseen. Then, the chapter describes the early implementation schemes in three RFMOs. Afterwards, it analyzes the developments of the measure in the legal framework of global and regional instruments. Finally, it summarizes the current state of the management measure in the legal framework and practices of RFMOs.

Section 1. The Theoretical Foundations for a TAC and Allocation of National Quotas

The first international agreements for the conservation of high seas resources had a focus on cooperation for scientific purposes, on exchanging data and, in the most progressive cases, on the adoption of appropriate technical measures to achieve a conservation goal.¹²⁸ Establishing limits to fishing effort or catches, and allocating them among participants, was not a standard fisheries management strategy and was simply not in their mandates.

¹²⁸ The International Council for the Exploration of the Sea (ICES), the first regional organization established in 1902 with the purpose of encouraging and coordinating the scientific research of the member States (Koers, *supra* note 108, at 78). Following the success of ICES, two other organizations were established with the same purposes: the International Commission for the Scientific Exploration of the Mediterranean Sea, and the North American Council of Fishery Investigations (Koers, *ibid*, at 79). Other early Conventions considered the establishment of technical conservation measures such as limiting mesh size and fish size limits. Examples thereof are the Pacific Halibut Commission and the International Pacific Salmon Fisheries Commission, the Convention for the Regulation of the Meshes of Fishing Nets and the Size Limits of Fish and the International Commission for the Northwest Atlantic Fisheries. (See: Koers, *ibid*).

Three parallel developments in the 1950s and 1960s were to make a significant change in the fisheries management approach, including but not restricted to international management. The first of those developments related to several advancements in fisheries technology and science, which made the environment propitious for the implementation of TACs as a management tool. On one hand, the echo sounder and asdic technology used in surveys of biomass abundance improved the ability to estimate stock sizes.¹²⁹ In turn, during the 1950s, mathematical models of fish population dynamics were developed in response to fishing pressures. These models “allow scientists to calculate quantitatively the probable effects of fishing on fish stock and thus provide advice to managers on fisheries regulations.”¹³⁰ Those models were improved by statistical methods for calculating strengths of year classes: the Virtual Population Analysis (VPA) and the simplified Pope’s ‘cohort analysis’. These models improved the scientific tools for estimating the actual size of a fish stock. VPA, in particular, allowed scientists to calculate stock size in actual tonnage, which in turn suited the political demands for simple and “feasible allocation and administration.”¹³¹

At the same time, contributions were made by the incipient discipline of fisheries economics. The work of H. Scott Gordon (1954),¹³² J.A. Crutchfield (1956)¹³³ and Anthony Scott and Francis T. Christy (1965),¹³⁴ as well as several conferences addressing economic aspects of fisheries regulation organized in the late 1950s and early 1960s,¹³⁵

¹²⁹ Stig S. Gezelius, “The Arrival of Modern Fisheries Management in the North Atlantic: A Historical Overview” in Stig S. Gezelius and Jesper, Raakjær, *Making Fisheries Management Work: Implementation of Policies for Sustainable Fishing* (Dordrecht: Springer, c. 2008), at 33.

¹³⁰ *Ibid*, at 34. The models referred to are: the Beverton-Holt model (Beverton and Holt, *Dynamics of Exploited Fish Populations*, 1957); and the Ricker model (Bill Ricker, 1958).

¹³¹ *Ibid*, at 35.

¹³² H. Scott Gordon, “The Economic Theory of a Common-Property Resource: The Fishery” (1954) *The Journal of Political Economy* 88.

¹³³ J.A. Crutchfield, “Common Property Resources and Factor Allocation” (1956) 22 *The Canadian Journal of Economics and Political Science* 292.

¹³⁴ Francis T. Christy, Jr. and Anthony Scott, *The Common Wealth In Ocean Fisheries: Some Problems of Growth and Economic Allocation* (Baltimore: Published for Resources for the Future by The Johns Hopkins Press, 1965). See also: S.M. Garcia, “Ocean Fisheries Management: The FAO Programme” in Paolo Fabbri (ed.), *Ocean Management in Global Change* (London and New York: Elsevier Applied Science, 1992) 381, at 387 and 389.

¹³⁵ For example, two conferences on the economics and biology of fishery management organized by the University of Washington, Seattle, and three conferences organized by FAO: 1956 Round Table on the Economics of Fisheries (organized in cooperation with the International Economic Association), the 1958 Technical Meeting on Costs and Earnings of Fishing Enterprises, and the Expert Meeting on the Economic Effects of Fishery Regulation in 1961 (FAO, *Economic Effects of Fishery Regulation* (Rome: FAO, 1962)

“underlined the economic aspects of fisheries management and the problems of common property resources laying the basis for the development and application of fisheries economics”.¹³⁶

These two parallel developments paved the way for a bio-economic management paradigm that was presented to national and international fisheries administrators and became dominant in fisheries management.¹³⁷

The third component in the process was the urgent need to introduce new approaches to international fisheries management. By the 1950s, it was clear that the conventional fisheries management strategies were failing to avoid over-exploitation of stocks. In particular, the depletion of the fish stocks of the North Atlantic made it clear that a new strategy was required.¹³⁸ The RFMOs of the North Atlantic (the International Commission for the Northwest Atlantic Fisheries, ICNAF¹³⁹ and the North East Atlantic Fisheries Commission NEAFC¹⁴⁰) began, in an interlinked and mutually supportive process, to analyze other conservation approaches. As stated by Gezelius, “it was the discussions in the North Atlantic fisheries commissions in the 1960s which focused the attention of administrators and scientists on the need to restrict fishing intensity, and which generated the common view that catch quotas were the best way to do this”.¹⁴¹

at 2). Later, in 1966, FAO, with the support of ICNAF, organized a Study Group on Economic Aspects of Fishery Management (FAO, *A Note on Economic Aspects of Fishery Management*, FAO Fisheries Circular Nr. 27 (Rome: FAO, 1966), and ICNAF Res. Doc. 66-19, Serial No.1616.

¹³⁶ Garcia, *supra* note 134, at 387.

¹³⁷ Gezelius, *supra* note 129, at 34. The bio-economic management paradigm is reflected in the Gordon-Schaeffer model, which combines the model for scientific advice on harvesting restrictions and the models of human behavior in unregulated fisheries (Gezelius, *ibid*).

¹³⁸ A few organizations took earlier steps to limit fishing mortality through limiting catches: International Pacific Halibut Commission, International Pacific Salmon Commission, the regime of Antarctic whales and subsequent International Convention for the Regulation of Whaling, the Japan-Soviet Fisheries Commission for the Northwest Pacific. See: Koers, *supra* note 108. They were mostly based on total allowable catch without allocation of national shares, national shares allocated by agreements adopted outside the regime of the respective international organizations, or with respect to shared stocks.

¹³⁹ The International Commission for the Northwest Atlantic Fisheries [hereafter ICNAF] was established in 1949 by the International Convention for the Northwest Atlantic Fisheries, 8 February 1949, 157 UNTS 158; 1 UST 477 (enter into force on July 3, 1950) [hereafter ICNAF Convention]. Its objective was to coordinate management of fisheries off Canada's East Coast. In 1979, the Convention was superseded by the NAFO Convention, *supra* note 92, which also replaced the Commission with its successor, the Northwest Atlantic Fisheries Organization.

¹⁴⁰ The North East Atlantic Fisheries Commission [hereafter NEAFC] was established in 1963 by the *North-East Atlantic Fisheries Convention*, 24 January 1959, 486 UNTS 157 (entered into force 27 June 1963) [hereafter 1959 NEAFC Convention]. The Convention text was replaced by the NEAFC Convention, *supra* note 93.

¹⁴¹ Gezelius, *supra* note 129, at 27.

The initiative was taken mostly by ICNAF. In 1963, the Commission decided to task the Standing Committee on Research and Statistics to consider the question of the adequacy of the Commission's conservation measures. The report was to be presented in the 1964 meeting. This was the first time the issue was placed on the agenda of ICNAF.

At the 1964 meeting, it was recommended that the Chairman of the Research and Statistics Committee, Dr. W. Templeman (Canada), and the Chairman of the Assessment Subcommittee, Mr. J. Gulland (England), prepare a report on the various kinds of action which might be taken by the Commission for the purpose of maintaining the fish stocks in the Convention Area at a level which could produce maximum sustained yields. The report, entitled "Review of possible conservation actions for the ICNAF area,"¹⁴² was presented during the next meeting.

The Report relied heavily on economic and efficiency considerations. The possible conservation measures were analyzed not only considering the benefits arising from increased catches (through enhancement of the stocks), but also considering the benefits arising from improved fishing efficiency (through reductions of cost of unit fishing effort).¹⁴³ The conclusions made it clear that technical measures, such as mesh regulations, were not sufficient in a scenario of increasing fishing activities, and that "there must be some direct control of the amount of fishing. All methods of doing this raise difficulties, but that presenting least difficulties is by means of catch quotas. There must be separate quotas for each stock of fish, e.g. for cod at West Greenland, and preferably be allocated separately to each section of the industry."¹⁴⁴ The possibility of allocating by member countries was also presented as an option, although it was recognized that "difficulties of allocating between countries with a long and stable fishery

¹⁴² Wilfred Templeman and John Gulland, "Review of Possible conservation actions for the ICNAF Area", in ICNAF Annual Proceedings, Vol. 15 for the year 1964-1965 (Dartmouth, NS: ICNAF 1965) 47 [hereafter the Chairmen's Report].

¹⁴³ The main point made by the authors is that "even when the objective is simply to reach the maximum yield the possible benefits that may be obtained are likely to be as much or more in the form of reduced costs, as in that of increased yield" (Chairmen's Report, *ibid*, at 52). They added that "the usefulness of regulations, particularly those affecting fishing effort, will be reduced if they seriously affect the efficiency of fishing (costs of unit fishing effort) (Chairmen's Report, *ibid*, at 53). Indeed, one of the main reasons to prefer catch quotas over other measures is that the latter "waste the potential economic benefits of regulation" (Report of the Working Group on Joint Biological and Economical Assessment of Conservation Actions, presented at the 17th Annual Meeting of ICNAF on June 1967, Commissioners Document Nr. 67/19, and included as Part 4 of the *ICNAF Annual Proceedings*, Vol. 17, for the year 1966-1967 (Dartmouth, NS: ICNAF, 1968) at 52).

¹⁴⁴ Chairmen's Report, *ibid*, at 56.

in ICNAF area and those whose fisheries in the area are developing are obvious.”¹⁴⁵ It was also mentioned that a national allocation would allow different countries to use the potential surplus in different ways.¹⁴⁶

Following this report, in 1966 ICNAF resolved to establish a Working Group on Joint Biological and Economic Assessment of Conservation Actions, charged with the evaluation of management measures based on limitations of either total effort or total catch. The working group met twice between 1966 and 1967, and presented its results to the 17th annual meeting in 1967.¹⁴⁷ This Report supported the conclusions of the Chairmen’s Report, and concluded that:

- a) of the methods of reducing the rate of fishing mortality available to the international commissions, there are only two that would enable member countries to reduce their production costs: i.e. an allocation of definite shares of an agreed total amount of fishing expressed in terms of either (a) catch or (b) standard units of fishing effort.¹⁴⁸
- b) the use of fishing effort, e.g. days on ground, as a measure of the amount of fishing under quota control would raise very great problems of inter-gear calibration and the like and for that reason, may be set aside for the present.¹⁴⁹
- c) on the contrary, limiting fishing mortality through quotas could be feasible as soon as 1968 since considerable quantity of data was already available to the commission.
- d) the method adopted by each country to restrict fishing operations to the assigned limit may be chosen to suit national objectives and would be irrelevant to the general effectiveness of the management program.¹⁵⁰

The reasons provided in the different reports to justify the need to allocate national quotas to participating States were varied, but all rooted in the need to eliminate the competition among fishing fleets, and thus eliminate the economic interdependence arising from the fact that different fleets exploit one common, and limited, asset (the fish stock). The first and predominant reason provided in the report was again one of economic efficiency: an unallocated quota creates a race to fish, in which every unit [State, companies and vessels] strives “to maximize its share (...) [which] causes most of

¹⁴⁵ *Ibid.*, at 55.

¹⁴⁶ *Ibid.*

¹⁴⁷ Report of the Working Group on Joint Biological and Economical Assessment of Conservation Actions, *supra* note 143, at 48.

¹⁴⁸ *Ibid.*, at 56.

¹⁴⁹ *Ibid.*

¹⁵⁰ *Ibid.*

the potential benefit of reducing mortality to be lost.”¹⁵¹ A second, more subtle, reason suggested in the Templeman – Gulland report was to protect particular sections of the industry from inequities resulting from rampant competition for a limited resource, or due to the design of the measure.¹⁵² A third reason was that this mechanism allows each country to make a sovereign decision on its fisheries management objectives (i.e., on how the surplus of the fishery will be used).¹⁵³ As stated by Crutchfield, “the national quota regime provides the maximum possible incentive and opportunity for member nations to improve net economic benefits from the fishery while preserving the right of each nation to define its own objectives and pursue them without pressure from or prejudice to the interests of others.”¹⁵⁴

The proponents of the national quota system were aware of some drawbacks and difficulties in its implementation. From a conservation perspective, a national catch quota system “would not allow the refined biological management that would maximize aggregate physical yield from several stocks involved.”¹⁵⁵ It could also “open the door to undue concentration of fishing effort on particular stocks either by accident or design”.¹⁵⁶ It was also acknowledged that a catch system would need constant revision and adjustment due to either mismanagement or natural fluctuations in stock abundance, which affect the fishing mortality rate.¹⁵⁷ The need for accurate scientific data and

¹⁵¹ *Ibid*, at 53. See also: Chairmen’s Report, *supra* note 142, at 55.

¹⁵² The chairmen give the example of global quotas set in seasonal fisheries, where “one of the seasonal fisheries will have a big advantage depending on the date from which the quota year is calculated” (Chairmen’s Report, *ibid*, at 55). Koers mentions that “national quotas could make a contribution towards preventing the further deprivation of these countries which could result from allocation on the basis of free competition” (Koers, *supra* note 108, at 68).

¹⁵³ Chairmen’s Report, *ibid*, at 55.

¹⁵⁴ James A. Crutchfield, “National Quotas for the North Atlantic Fisheries: An exercise in Second Best”, in Lewis M. Alexander (ed.), *International Rules and Organization for the Sea, Proceedings of the Third Annual Conference of the Law of the Sea Institute, June 24 – June 27, 1968, University of Rhode Island, Kingston, Rhode Island* (Kingston, R. I.: University of Rhode Island, 1969) 263, at 269. It was recognized, however, that “of itself such a program cannot guarantee an improvement in the economic benefits derived from the fishery”, since its achievement depends on the objectives defined by each particular State. It was further recognized that along with net economic benefit, a State may take into consideration a variety of non-efficient, but rational, economic objectives in defining their objectives and policies (Crutchfield, *ibid*, at 270).

¹⁵⁵ *Ibid*, at 269.

¹⁵⁶ *Ibid*.

¹⁵⁷ Report of the Working Group on Joint Biological and Economic Assessment of Conservation Actions, *supra* note 143, at 54.

analysis was also stressed.¹⁵⁸ In addition, the difficulties associated with monitoring, control, surveillance and enforcement mechanisms were highlighted.¹⁵⁹

From an economic perspective, it was noted that the system does not provide “significant pressure for reduction of unnecessary inputs” (and thus for increasing net economic yields).¹⁶⁰ Nothing, indeed, guarantees that States will not prefer to pursue non-efficient, albeit rational, objectives.¹⁶¹ This was considered, however, unavoidable to respect States’ sovereignty. The Report of the Working Group on Joint Economic and Biological Assessment of Conservation Actions explicitly stated that the national policies and/or mechanisms to restrict fishing activities to comply with the nationally allocated catch or effort limit were irrelevant for the effectiveness of the international management program.¹⁶² In other words, the design and success of the international regime was considered to be divorced from the national policies, objectives and regulations (provided that the catch limits were complied with).

Most importantly for this thesis, equity considerations involved in the allocation of quotas were raised in those early reports. The mechanism and basis for determining national quotas was identified as one considerable problem, particularly in fully utilized fisheries.¹⁶³ The problem of new entrants to the fisheries was considered as significant, or more so,¹⁶⁴ with special reference to developing countries.¹⁶⁵ However, the economic emphasis of the studies left the distributional effects of the proposed measure mostly unaddressed.¹⁶⁶ It was acknowledged that “the losses and gains will not be equal for all

¹⁵⁸ Crutchfield, *supra* note 154, at 265.

¹⁵⁹ Alexander, *supra* note 154, “Discussion Period” at 290.

¹⁶⁰ Crutchfield, *supra* note 154, at 269. In that respect, it was acknowledged that other mechanisms were better suited to achieve that goal. In particular, measures to control or limit effort would produce maximum savings in costs; but due to the technical difficulties associated to its permanent calibration it was considered unfeasible (Report of the Working Group on Joint Economic and Biological Assessment of Conservation Actions, *supra* note 143, at 53. See also: FAO, *A Note on Economic Aspects of Fishery Management*, *supra* note 135, at 8-9); Gezelius, *supra* note 129, at 33.

¹⁶¹ Crutchfield, *ibid*, at 270.

¹⁶² Report of the Working Group on Joint Economic and Biological Assessment, *supra* note 143, at 56.

¹⁶³ “Then difficulties of an allocation between countries with a long and stable fishery in the ICNAF area and those whose fisheries in the area are developing are obvious” (Chairmen’s Report, *supra* note 142, at 55; Crutchfield, *supra* note 154, at 272).

¹⁶⁴ Crutchfield, *ibid*, at 272.

¹⁶⁵ *Ibid*.

¹⁶⁶ The FAO Study Group on Economic Aspects of Fishery Management stated clearly that “it must be acknowledge, without reservations, that economic analysis as such can provide no basis for distribution decisions of this type. It can only clarify the alternatives, and thus improve the essentially political

sections of the fishery”,¹⁶⁷ and expected that, as long as these differences were small, the inequalities could be considered acceptable.¹⁶⁸

Section 2. Early Allocation Schemes and Practices

The numerous reports described above unanimously concluded that the best tool to ensure the maximum sustainable yield of international fisheries, was the establishment of TAC and its allocation to participating States. However, regional fisheries management organizations had to address two pending issues to actually adopt it as management measure: a) the legal mandate to do so; and b) the allocation schemes, keys or criteria to distribute the TAC among participating States. In most cases, both processes evolved simultaneously.

TAC and Allocation in ICNAF

The fisheries in the North West Atlantic were put under international management just after World War II, with the signature and entry into force (in 1949 and 1950, respectively) of the International Convention for the Northwest Atlantic Fisheries.¹⁶⁹ This Convention established a Commission, which was responsible “in the field of scientific investigation for obtaining and collating the information necessary for maintaining those stocks of fish which support international fisheries in the Convention area”.¹⁷⁰ In addition, the Commission had the function of proposing measures, for joint action by the contracting governments, designed to keep the stocks of those species of fish which support international fisheries in the Convention area at a level permitting the maximum sustained catch.”¹⁷¹ The exhaustive list of possible measures included open and closed

decision-making that must be involved.” (FAO, *A Note on Economic Aspects of Fishery Management*, *supra* note 135, at 2).

¹⁶⁷ Chairmen’s Report, *supra* note 142, at 56.

¹⁶⁸ *Ibid.* The acceptability was linked to the expected enhanced economic net benefits. Even in the case of a perceived inequitable share, the economic benefits resulting from that share would probably exceed the net benefits resulting from a bigger share in a traditional “free competition” system. Crutchfield noted that “the point is clear; even a portion of that pie is well worth realizing and dividing up, even if the division itself is not completely equitable or completely satisfactory to every participant”(Crutchfield, *supra* note 154, at 270).

¹⁶⁹ ICNAF Convention, *supra* note 139.

¹⁷⁰ *Ibid.*, article VI.

¹⁷¹ *Ibid.*, article VIII(1).

seasons, closing spawning areas or areas populated by small or immature fish, size limits, prohibiting certain fishing gear and appliances, and prescribing an over-all catch limit for any species of fish.¹⁷² Thus, the allocation of national quotas was not allowed in the original Convention.

To overcome this legal difficulty, the Commission negotiated and adopted the 1969 Protocol amending its Convention in order to “provide greater flexibility in the types of fisheries regulatory measures which the Commission might propose”¹⁷³ under the terms of article VIII paragraph 1 of the Convention. The Protocol amended articles VII and VIII of the Convention to allow the Panels to make recommendations, and the Commission to transmit proposals for joint action by the contracting governments designed to achieve the optimum utilization of the stocks of those species of fish which support international fisheries in the Convention area.¹⁷⁴ Those measures were understood to include TAC and national quotas.¹⁷⁵ The Protocol entered into force on December 15, 1971.

In parallel to this process, ICNAF resolved to establish a Standing Committee on Regulatory Measures (STACREM) with the task of considering the economic and administrative aspects of the problems of introducing regulatory measures, including:

- a) procedure for fixing annual catch quotas;
- b) the nature of the quotas to be fixed with respect to species and areas;
- c) problems of enforcement;
- d) principles of distributing quotas between countries; and
- e) administration of quotas within countries.¹⁷⁶

¹⁷² *Ibid*, article VIII(1).

¹⁷³ ICNAF, *Report of the 19th Annual Meeting*, Warsaw, Poland, 2-7 June 1969, in ICNAF Annual Proceedings Vol. 19 (1968-1969) (Dartmouth, NS: ICNAF, 1969) 14, at 20.

¹⁷⁴ Paragraph 2 of article VII of the ICNAF Convention, as amended, read: “Each Panel, upon the basis of scientific investigations, and economic and technical considerations, may make recommendations to the Commission for joint action by the Contracting Governments within the scope of paragraph 1 of article VIII.” Article VIII paragraph 1, in turn, read: “The Commission may, on the recommendations of one or more Panels, and on the basis of scientific investigations, and economic and technical considerations, transmit to the depositary Government appropriate proposals, for joint action by the Contracting Governments, designed to achieve the optimum utilization of the stocks of those species of fish which support international fisheries in the Convention Area.” (Chepel, L. I. *Northwest Atlantic: Fisheries, Science, Regulations XX Century* (Dartmouth, NS: NAFO, 2002) at 115).

¹⁷⁵ Chepel, *ibid*, at 120.

¹⁷⁶ ICNAF, *Report of the Seventeenth Annual Meeting*, Boston, USA, 5-9 June 1967, in ICNAF, *Annual Proceedings*, Vol. 17 for the year 1966-67 (Dartmouth, NS: ICNAF, 1968) 13, at 22.

Most of the work of STACREM was done during a January 1969 meeting, where the Committee prepared guidelines for the management, enforcement and monitoring of catch limits, including guidelines for the negotiation of quota allocation. The guidelines were revised in a June 1969 meeting, in particular in light of developments in the North East Atlantic, but no changes were made to them and they were forwarded to the Commission, which endorsed the guidelines. In January 1970, the Committee was required to revise the guidelines to analyze the “sliding scale” concept revised in the North East Atlantic, which was then accepted and incorporated into the guidelines.

The adopted guidelines considered the following aspects:

- A catch limit involves the establishment of (a) a total allowable catch, and (b) the proportion in which this total catch is to be shared among participating countries.
- The first decision would be decided by the Commission with some predefined conservation objectives, and in light of scientific evidence provided by the Standing Committee on Research and Statistics.
- Shares of the participating countries should be based mainly on historical performance (average catches over a datum period(s)).
- Both a short and long term historical performance should be used: 3- year history and 10-year history, weighted 40% each.¹⁷⁷
- A small proportion of the quota should be set aside for new entrants to the fishery, for non-members fishing countries, for member countries with developing fisheries, for coastal State preferences, and for the fleets of member countries which were incapable of being diverted to other fisheries. Later, the proportion was set in 10% for coastal States and 10% for new entrants.
- There should be a “sliding scale”, according to which, were the lower the TAC, the greater the degree of preference to those countries having special needs.
- There was also consensus in the Committee that schemes should be flexible, in the sense that the shares initially fixed could not continue in force indefinitely but would be capable of adjustment in the light of experience.
- In cases of over-catches, it was agreed that the share for the subsequent year should be reduced. Some countries considered it sufficient to deduct the excess catches, while others considered that the reduction should be at least twice as great.
- In case of under-catches, there was consensus in that it would be sufficient to take account of under-utilization in general reviews referred to above.
- Additional guidelines for enforcement and monitoring were offered.

¹⁷⁷ It appears that while in 1972, the preferred reference period for the long-term catch history was 7 years, by 1973 it changed to a period of 10 years (see: Chepel, *supra* note 174, at 134, 139 and 165).

The conclusions reached through the deliberations that took place in the STACREM meetings in relation to the principles for distribution of quotas among participating States are generally known as the 40:40:10:10 formula: 40% distributed according to catches recorded on the last 3 years; 40% distributed according to catches recorded on the last 10 years; 10% for coastal States; and 10% for new interests and non-members.¹⁷⁸ It was understood by STACREM, however, that the distribution could not follow a fixed mathematical formula, and that flexibility was required.

After the entry into force of the 1969 Protocol and the preparation of the allocation scheme by the STACREM, the Commission was in the position to adopt a catch allocation regime. The opportunity arose during a special joint meeting of panels 4 and 5 held in January 1972 to analyze management solutions for the declining herring stocks.

Despite the preparatory work, negotiations were difficult. The meeting discussed the application of the STACREM guidelines. However, some of the members of the joint panel considered that they resulted in an equal sacrifice and were, thus, unacceptable. In order to achieve a solution, it was proposed that a working group be formed by delegates of those countries whose vessels fished for any of the three adult stocks of herring in the Grand Bank, Gulf of Main and Nova Scotia Bank, and that this working group should meet to discuss and agree on a catch limitation scheme.¹⁷⁹ The group, “recognizing the economic benefits to be gained by the allocation of national catch quota”,¹⁸⁰ achieved agreement. The allocation was based primarily on the principle of equal sacrifice from 1971 catch levels, but with subsequent re-allocation by negotiation in the case of special needs.¹⁸¹

This was, indeed, an historical moment: for the first time, a TAC and national quotas were adopted for multi-national fisheries. This landmark, combined with the declining status of most fisheries (and probably also by threats of extensions to national jurisdictions)¹⁸² opened the doors for management of several other stocks. The 1972 June

¹⁷⁸ *Ibid.*, at 139.

¹⁷⁹ ICNAF, *Report of the First Special Meeting of ICNAF*, Rome, January 31-February 7, 1972, in ICNAF, *Annual Proceedings*, vol. 22 for the year 1971-72 (Dartmouth, NS: ICNAF, 1973); and in Chepel, *ibid.*, at 129.

¹⁸⁰ *Ibid.*

¹⁸¹ *Ibid.*

¹⁸² In the 1972 June Meeting, where most of the quotas and allocation were agreed upon, the U.S. delegate, Honorable James Lynn, made an initial speech making clear that, if the Commission did not adopt the

Annual meeting adopted quotas and allocation for 17 other stocks. Again, a “closed-door” *ad hoc* committee on quota allocation was necessary to achieve agreement on allocation of quotas.¹⁸³ The *ad hoc* Committee agreed that there should be no record of its deliberations, except for the table with national quotas put forward for the consideration of the respective panels and Commission.¹⁸⁴ By 1974, 60 stocks were managed under an allocated quota regime.

It seems evident that the 40:40:10:10 formula provided a general framework used as a starting point for the negotiation and led to a more or less acceptable consensus.¹⁸⁵ The formula was generally followed, although adjustments were usually made.¹⁸⁶ In addition, it was acknowledged that “there was sometimes slippage in the early days of quota negotiation and sometimes TACs were changed in order to make it possible to reach agreement on sharing”.¹⁸⁷ It was perceived, though, that this practice was no longer followed at the end of ICNAF’s existence.¹⁸⁸

The new conservation and management measure was not timely and effective enough to stop the decline of fish stocks. By 1977, most coastal States had extended their fisheries jurisdiction to 200 nautical miles. Fisheries management in the Northwest Atlantic was going to undergo a major revision, since many stocks would be under national jurisdiction in this new ocean reality.

TAC and Allocation in the North East Atlantic

The history TACs and allocations in the North East Atlantic developed in parallel to that of the North West Atlantic, in a process that is intertwined and constitute really one single evolution towards “modern” fisheries management. The process of NEAFC, however, faced more difficulties than at the other side of the Atlantic.

revolutionary changes needed, other measures (i.e. extension of jurisdiction) were going to be considered by that coastal State.

¹⁸³ Chepel, *supra* note 174. The *ad hoc* group on allocation was chaired by Mr. A.J. Aglen, from UK.

¹⁸⁴ *Ibid*, at 134.

¹⁸⁵ *Ibid*, at 139 and 165

¹⁸⁶ *Ibid*.

¹⁸⁷ Dr. A.W.H. Needler, Address to the Twenty-Ninth, and Final, Annual Meeting of ICNAF, in L.I. Chepel, *ibid*, at 228. See also: Emory D. Anderson, “The History of Fisheries Management and Scientific Advice – the ICNAF/NAFO History from the End of World War II to the Present” (1998) 23 *Journal of Northwest Atlantic Fisheries Science* 75, at 83.

¹⁸⁸ Needler, *ibid*.

The North East Atlantic Fisheries Commission was established by the 1959 North East Atlantic Fisheries Convention,¹⁸⁹ as a successor of the Permanent Commission established under the 1946 Convention for the Regulation of Meshes and Fishing Nets and the Size Limits of Fish. As in the case of ICNAF, NEAFC adopted technical measures for the protection of the stocks, which soon proved insufficient to avoid over-exploitation of the high-value stocks of the North East Atlantic. Article 7 of the 1959 Convention provided:

1. The measures relating to the objectives and purposes of this Convention which the Commission and Regional Committees may consider, and on which the Commission may make recommendations to the Contracting States, are
 - a) any measures for the regulation of the size of mesh of fishing nets;
 - b) any measures for regulation of the size limits of fish that may be retained on board vessels, or landed, or exposed or offered for sale;
 - c) any measures for the establishment of closed seasons;
 - d) any measures for the establishment of closed areas;
 - e) any measures for the regulation of fishing gear and appliances, other than regulation of the size of mesh of fishing nets;
 - f) any measures for the improvement and the increase of marine resources, which may include artificial propagation, the transplantation of organisms and the transplantation of young.
2. Measures for regulating the amount of total catch, or the amount of fishing effort in any period, or any other kinds of measures for the purpose of the conservation of the fish stocks in the Convention area, may be added to the measures listed in paragraph (1) of this Article on a proposal adopted by not less than a two-thirds majority of the Delegations present and voting and subsequently accepted by all Contracting States in accordance with their respective constitutional procedures.
3. The measures provided for in paragraphs (1) and (2) of this Article may relate to any or all species of sea fish and shell fish, but not to sea mammals; to any or all methods of fishing; and to any or all parts of the methods of fishing; and to any or all parts of the Convention area.

Albeit paragraph 2 of article 7 allowed the adoption of measures for regulating the amount of catch, or any other measure for the purpose of the conservation of the stock (which could have included TAC and allocations), it required a proposal adopted by a qualified majority. In 1970, NEAFC adopted a resolution to activate the powers of article

¹⁸⁹ 1959 NEAFC Convention, *supra* note 140. The Commission succeeded the Permanent Commission established by the 1946 Convention for the Regulation of Meshes of Fishing Nets and the Size Limits of Fish.

7(2) and adding some measures to the list of article 7(1).¹⁹⁰ The added measures were: a) any measures for the regulation of the amount of total catch and its allocation to contracting States in any period; and b) any measures for the regulation of the amount of fishing efforts and its allocation to contracting States in any period.¹⁹¹ The resolution was only adopted by the required majority in 1974. While negotiating this resolution, member States stressed the need to avoid discrimination in the allocation of catch or effort quotas, and the need that quotas be firmly based on scientific advice.¹⁹² For this purpose, it was agreed that the document communicating this decision to the contracting parties should make clear that the Commission, in exercising these powers, would “in accordance with normal practice, base its decision on the results of scientific research and investigations, after taking into consideration the views and economic interests of all Member States.”¹⁹³

In parallel to this process, the adoption of restrictions on fishing mortality for particular stocks was discussed. The issue entered formally in the agenda of NEAFC for the first time in 1966.¹⁹⁴ However, the delegates decided to study the issue further together with ICNAF and FAO.¹⁹⁵ The reports presented to ICNAF, indeed, were presented almost simultaneously to the NEAFC.¹⁹⁶ In 1968, NEAFC decided to form an Ad Hoc Study Group to examine the possibility of restricting fishing on demersal species – Northeast Arctic cod and haddock. The following year, an Ad Hoc Study Group was formed to analyze management options for herring. Both groups concentrated their focus on a system based on catch quotas, which was recommended as the most effective way to protect the stocks.¹⁹⁷ However, both due to the legal constraints and hesitation on the part of member States, the Commission was unable to agree on such measures.¹⁹⁸

¹⁹⁰ NEAFC, *Report of the Proceedings of the Eight Meeting of the North-East Atlantic Fisheries Commission*, 6-11 May 1970, London (London: NEAFC, 1970) at 11-12.

¹⁹¹ *Ibid.*, at 12.

¹⁹² *Ibid.*, at 11-12.

¹⁹³ *Ibid.*, at 12.

¹⁹⁴ Gezelius, *supra* note 129, at 32.

¹⁹⁵ *Ibid.*

¹⁹⁶ *Ibid.*

¹⁹⁷ *Ibid.*, at 35; Sen, Sevaly. “The evolution of high-seas fisheries management in the north-east Atlantic” (1997) 35 *Ocean & Coastal Management* 85, at 90.

¹⁹⁸ Sen, *ibid.*, at 90. The Commission established instead two closed seasons for 1971, and in the three following years one closed season. Both had exceptions of herring fishing for human consumption or bait (*ibid.*).

The inability of the Commission to move forward the TAC agenda by adopting the amendment to article 7.1 pursuant the mechanisms of article 7.2. led some member States to take independent action. The abrupt decline of Norwegian Spring Spawning Herring (or Atlanto-Scandian Herring) precipitated this action. Iceland, Norway and USSR began discussions outside the NEAFC framework and ultimately agreed on an allocated quota for the stock for 1971.¹⁹⁹ Similarly, the main fishing States for Northeast Arctic cod and haddock - Norway, UK, USSR - agreed on a TAC and its allocation outside the NEAFC framework. However, the agreement broke down when USSR withdrew due to excessive fishing from non-signatories.²⁰⁰

In 1974, NEAFC took over the task of adopting and allocating TACs. In its June 1974 meeting, the organization established a quota for North Sea herring for the 1974-1975 fishing season,²⁰¹ as well as a quota for other pelagic and demersal stocks for the 1975 fishing season.²⁰²

Contrary to the experience in ICNAF, where STACREM was mandated to analyze the best principles for quota distribution, NEAFC proceeded on an ad-hoc basis establishing working groups for specific stocks.²⁰³ The criteria for allocation developed in these different working groups shared some common elements; however, they differed in the weight they assigned to each criterion. It was agreed that the main criteria for allocation should be historical performance. In some cases a 6/4 formula was adopted (the story of the first 6 years of the previous 10 year period, and the catches of the latter 4 of the same period, weighted equally in the distribution of fishing opportunities). It was

¹⁹⁹ Gezelius, *supra* note 129, at 36.

²⁰⁰ *Ibid.*

²⁰¹ Recommendation (8)(A), in NEAFC Lists of Recommendations, Annex F of the NEAFC Report of the Twelfth Annual Meeting, June 1974 (London: NEAFC, 1975) 81, at 89.

²⁰² Recommendations (13) on Celtic Sea Herring, (14) on Cod, Haddock and Whiting in the North Sea, (15) on Sole and Plaice Fishing in the North Sea, English Channel, Bristol Channel and the Irish Sea, (16) on Herring catches in ICEA Area VI(a), and (19) on Arcto-Norwegian cod in the North East Arctic, all in NEAFC List of Recommendations, Annex F, *ibid.*, at 93-100. See also: Gezelius, *supra* note 129, at 36; and Sen, *supra* note 197, at 90.

²⁰³ Wieland, during the NEAFC 21st Annual Meeting held in 2002, stated that discussion on allocation “has been connected to sharing of each species separately” (NEAFC, *Summary Report of the 19th Annual Meeting of the North East Atlantic Fisheries Commission*, London, 21-24 November 2000, at 18-19, online: <<http://archive.neafc.org/reports>>). In 2002, delegates pointed out that stated that NEAFC had a different reality than NAFO because NAFO have fixed allocations keys (NEAFC, *Report of the 21st Annual Meeting of the North-East Atlantic Fisheries Commission*, London, 12 - 15 November 2002, at 36, online: <<http://archive.neafc.org/reports>>). It was also pointed out that the allocations keys in NAFO were never adopted, but they constitute a long standing practice of the organization (*ibid.*).

also agreed that a “nominal” percentage (1% to 5%) should be reserved to new members or to provide for special needs. A share was usually allocated to coastal States, and distributed among them either on the basis of their historical performance using the 6/4 formula, or on an egalitarian basis.²⁰⁴

As in the case of ICNAF, the development of guidelines was a useful, but insufficient, mechanism. The TACs ultimately adopted and allocated in 1974, although negotiated using the criteria developed, were ultimately a compromise among differing views on both the weight that should be accorded to each criteria, and particular circumstances that needed to be taken into account for a particular stock.²⁰⁵ And just as in the case of ICNAF, in many cases compromises were made at the expense of the allocated stock. The TAC was often increased to satisfy the expectations of the different participants.²⁰⁶ Despite those compromises, consensus could not generally be reached and objections were frequent.²⁰⁷

TAC and Allocation for Atlantic Tunas

In 1966, the International Convention for the Conservation of Atlantic Tunas²⁰⁸ was adopted “to co-operate in maintaining the populations of these fishes at levels which will permit the maximum sustainable catch for food and other purposes”.²⁰⁹ The

²⁰⁴ Gezelius, *supra* note 129, at 36;

²⁰⁵ For example, the use of the fish as human consumption (as opposed to the “industrial” fisheries for reduction) was claimed as a legitimate criterion for allocation; as was the difference between the allocation proposal and the fishing capacities of a particular country.

²⁰⁶ Sen, *supra* note 197, at 90-91.

²⁰⁷ See, for example: NEAFC Twelfth Meeting Press Notice, Annex E of the NEAFC Report of the Twelfth Annual Meeting, June 1974, *supra* note 201, at 77;

²⁰⁸ ICCAT Convention, *supra* note 87.

²⁰⁹ *Ibid*, preamble. See also article VIII(1)(a). The Convention, article VI, establishes a Commission and a Council, an Executive Secretary, and allows the Commission to establish panels for group of species or specific areas. If established, such panels are responsible for, inter alia, “proposing to the Commission, upon the basis of scientific investigations, recommendations for joint action by the Contracting Parties” (article VI.b). Membership of a Panel shall comprise all member countries which inform the Commission, at a regular meeting, of their desire to be considered as members of the Panel (ICCAT Rules of Procedure, rule 12.4, in ICCAT *Basic Texts*, 5th revision (Madrid: ICCAT, 2007), online: ICCAT <www.iccat.int>). Thus, the panels have the initiative for the proposition of conservation and management measures for the respective stock, group of stocks or area under their mandate. The Commission has established 4 panels, which are responsible for tropical tunas (including bigeye tuna), temperate tunas in the northern hemisphere, temperate tunas in the southern hemisphere and for bonito, billfishes and other species, respectively (information available online: ICCAT <www.iccat.int>).

Convention establishes the International Commission for the Conservation of Atlantic Tuna (ICCAT), which general mandate is,

(...) on the basis of scientific evidence, make recommendations designed to maintain the populations of tuna and tuna-like fishes that may be taken in the Convention area at levels which will permit the maximum sustainable catch.²¹⁰

The ICCAT Convention does not refer to TACs or allocation of fishing opportunities, and it was never amended to explicitly recognize the possibility of adopting TACs and national quotas. The general interpretation seems to be, however, that they may be adopted under that general mandate of the Commission. However, it should be noted that on different occasions during the early discussions of TAC and national quotas, some delegations expressed that a “system of quota is foreign to the spirit of the Convention.”²¹¹

The establishment of TAC and allocation for some tuna stocks was considered by ICCAT early on. The first stock that concentrated the attention of the Commission was yellowfin tuna. In 1971, an analysis was made by the Standing Committee on Research and Statistics (SCRS) of the management alternatives for this stock, including: a) no regulation, b) direct control of fishing effort, c) assignment of fixed quota, and d) assignment of country quotas. This early report of the SCRS concluded that, in view of the range of vessels and gears types then employed in the fishery, and the difficulty of ensuring that any change in efficiency would be observed and appropriate corrections made, a fishing effort control would be impracticable.²¹² Quotas, either as global quotas or country quotas, were therefore the alternatives recommended to the Council, although with the cautionary advice that the information and statistics needed to be improved for these management measures, and that real time catch reporting was necessary in the event

²¹⁰ ICCAT Convention, *ibid*, article VIII(1)(a).

²¹¹ ICCAT, *Report for biennial period, 1982-83, Part I (1982), English version*, (Madrid, Spain, 1983), Annex 8, Reports of the Meetings of Panels 1-4, Agenda item 6 of Panel 2, at 79, online: ICCAT <<http://www.iccat.int>>.

²¹² ICCAT, *Report for biennial period, 1972-73, Part I (1972), English version*, (Madrid, Spain, 1973), Annex 9, Report of the Standing Committee on Research and Statistics (SCRS), Madrid, November 20-28, 1972, paragraph 70 at 81, online: ICCAT <<http://www.iccat.int>>.

that global quotas were preferred.²¹³ It is worth mentioning that in these early studies, the experiences in the North West Atlantic (ICNAF) were particularly considered.²¹⁴

The Commission approached the matter with caution. In 1972, it agreed on establishing a working group on yellowfin tuna to “study the desirability and feasibility of concrete measures for the conservation and management of yellowfin stocks in the Convention area from a scientific and practical point”.²¹⁵ The issues to be considered included “the need for regulatory measures, size of total catch quota, ways of implementing the total catch quota, for example, free competition, a national catch quota system, or any feasible method of implementation; possibility of curtailing fishing effort, other possible regulatory measures, data requirements for implementation, and the factors involved in enforcement”.²¹⁶

With the exception of Japan, who had already proposed the establishment of an unallocated quota for yellowfin tuna in 1972, the members of the Commission considered it premature to establish a definite catch quota for the stock, recognizing the need for a more careful review of the subject.²¹⁷ One delegation stated that they were not in the position to accept a quota system that “does not take into account the interests of the coastal countries, does not define who should be assigned a quota, and does not mention the disproportion in the fishing potential of the countries.”²¹⁸ Other delegations stated that a quota system in itself was unacceptable.²¹⁹ As a consequence, despite the initiatives for an early establishment of a quota and allocation scheme and the experiences in other

²¹³ ICCAT, *ibid*, paragraph 72.

²¹⁴ Not only some member States participated in both processes, but some individuals were professionally involved in both developments. J.A. Gulland, one of the co-authors of the Chairmen’s Report, was the rapporteur of the working group on yellowfin tuna and prepared a document on the issue for the WG on yellowfin tuna, entitled “Some general considerations of methods of controlling the amount of fishing” SCRS/1973/062 and COM/1973/023, Col.Vol.Sci.Pap. ICCAT, 2: 116-125 (1974), online: ICCAT <<http://www.iccat.int>>.

²¹⁵ ICCAT, *Report for biennial period, 1972-73, Part I*, *supra* note 212, Annex 6, Appendix 4, Terms of Reference of the Working Group on Yellowfin tuna.

²¹⁶ *Ibid*. The working group was discontinued in the annual meeting of 1974.

²¹⁷ ICCAT, *Report for biennial period, 1972-73, Part II (1973), English version* (Madrid: ICCAT, 1974), Annex 6, Report of the Working Group on Yellowfin tuna regulations, Paris, 26-27 November 1973, paragraph 10 at 80, online: ICCAT <<http://www.iccat.int>>.

²¹⁸ *Ibid*.

²¹⁹ *Ibid*.

areas of the Atlantic, no such measure was adopted for yellowfin tuna at that time. Still today, the stock remains without such management measure.²²⁰

The declining Atlantic bluefin tuna stock soon concentrated the concerns of the ICCAT members and led to a different result. Again, the increasing exploitation of the stock suggested that mechanisms to control fishing mortality were necessary. Not without difficulties, the efforts to restrict fishing mortality succeeded in 1974, when a recommendation was adopted which established a minimum size for North bluefin tuna and, “as a preliminary step, the Contracting Parties that are or those that incidentally catch it in significant quantities shall take the necessary measures to limit the fishing mortality of bluefin tuna to recent levels for a period of one year”.²²¹

Although initially adopted for one year, the measure to limit mortality was subsequently extended until 1981. That year, the scientific evidence suggested that the West stock of bluefin tuna required further measures. Again with difficulties, a recommendation was adopted by which contracting parties committed to “take measures to prohibit the capture of bluefin tuna for a period of two years in the western Atlantic Ocean, as defined on the attached map (...), except under conditions to be agreed upon by the Contracting Parties whose nationals have been actively fishing for bluefin tuna in the western Atlantic; such conditions to be based on the requirement to index the

²²⁰ The only management measure adopted was the technical measures of minimum size (Recommendation 1972-01 by ICCAT on a Yellowfin size limit) which was repealed in 2005 (Recommendation 2005-01 by ICCAT on a Yellowfin size limit). Later, in 1995, ICCAT adopted a freezing of effort to 1992 levels still in effect (Recommendation 1993-04 by ICCAT on Supplemental regulatory measure for the management of Atlantic Yellowfin tuna). All Recommendations are available online: ICCAT <<http://www.iccat.int>>.

²²¹ Recommendation 1974-01 by ICCAT concerning a limit on bluefin tuna size and fishing mortality, online: ICCAT <www.iccat.int>. The recommendation was adopted by mail vote. Brazil abstained because the measure did not apply to them, as they were not actively fishing for northern bluefin tuna. However, the delegate stated that they oppose and will continue to oppose any measure which may involve the establishment of quotas based on the present levels of fishing by contracting parties, which may limit the growth of fishing in coastal States. Morocco expressed the same opinion and opposed the measure. France, Spain and Japan also expressed concern on the social and economic impacts of the measure to small local fishing boats. Portugal agreed with the measure under the condition it was established for one year only. Canada considered that the measure to freeze fishing levels did not go far enough. See: ICCAT, *Report for biennial period, 1974-75, PART I (1974), English version* (Madrid: ICCAT, 1975), paragraph 14 at 32, and Annex 4, Report of Panel 4, at 47, online: ICCAT <<http://www.iccat.int>>.

abundance of the stock.”²²² For this purpose, the contracting parties actively fishing should conclude consultations prior to February 15, 1982.²²³

That consultation on the Western Atlantic bluefin management measures took place in Miami, Florida, on February 8 to 12, 1982, with the presence of the three States actively fishing for Northern bluefin tuna (US, Canada, Japan) and one interested contracting party, Brazil. The meeting discussed, among other subjects, the allocation of quotas among the countries participating in the fishery. A first proposal by USA, with an allocation scheme based on the catch reports of the 1970-1974 period, was discussed but agreement could not be reached.²²⁴ To move the agenda forward, closed sessions were held with the heads of delegations. The closed session proved to be a useful mechanism to achieve agreement. The delegations agreed on limiting annual catch of bluefin tuna during 1982 and 1983 to 1,160 t, and dividing it among Canada, Japan, and US (250, 305 and 605 tonnes respectively). Brazil and Cuba, at that time catching each less than 50 t of bluefin tuna, were exempted from catch limitations. The Chair of the working group later explained to the Commission that “various factors were taken into account in determining these proportions such as effective monitoring needs, historical catches and economic factors. Special consideration was given to the Cuban and Brazilian fisheries, even though Cuba did not participate in the Miami meeting.”²²⁵

The adoption of such measure was controversial. During the next meeting of the Commission, it was argued by some delegations that such a measure should have not been adopted by a small working group.²²⁶ Others argued that the term quota used in the Miami Report is misleading since it was an allowance for scientific purposes only. The

²²² ICCAT, Recommendation 1981-01 by ICCAT on bluefin tuna management measures, para. 1, online: ICCAT <<http://www.iccat.int>>. The Japanese delegation was the only one to vote against the measure, while three contracting parties abstained.

²²³ ICCAT, Recommendation 1981-01, *ibid*, para. 2(a).

²²⁴ It is worth mentioning that the USA proposal did not consider the year 1975 in the basis for its allocation scheme because it considered that Japan unduly increased its fishing effort during this year. The proposal of USA gave Canada a 21% of the TAC, Japan a 15%, and USA a 64%.

²²⁵ The exception for Brazil and Cuba did not raise many comments. In 1983, Korea attempted to be included in the exception, but the other parties rejected that possibility explaining that need for the exception to be understood as a protection measure for two coastal States which have small-scale fisheries on the stock.

²²⁶ ICCAT, *Report for biennial period, 1982-83, Part I (1982)*, *supra* note 211, Annex 8, Reports of the Meetings of Panels 1-4, Agenda item 6 of Panel 2, at 78.

very system of quota was also objected.²²⁷ In addition, the Standing Committee on Research and Statistics (SCRS) determined that the assessment on which the 1981 recommendation was adopted should not be used for 1983 because of two factors: changes in the historical data base reported during 1981-1982, and an erroneous stock-recruitment relation. This served as argument for some delegations to attempt to re-establish the 1974 fishing mortality measure. Despite this considerable opposition, the 1982 meeting adopted a similar measure for 1983, albeit increasing the TAC to 2,660. The allocation scheme was maintained.

This first allocation exercise in ICCAT established the precedent for Northern bluefin tuna management, which remained mostly unchanged until 1998.²²⁸ It also set the precedent for other allocation exercises that took place in the 1980's. In the case of North Atlantic swordfish, Eastern and Mediterranean bluefin tuna and North Atlantic albacore, agreement was reached first to freeze the fishing mortality to the levels of a certain reference point.²²⁹ Freezing the fishing mortality was an implicit sharing arrangement of the stock. However, such arrangements were imperfect due to various considerations. First, statistical misreporting and reporting corrections increased the fishing mortality beyond the levels upon which the decision was made. Secondly, limitations involving number of fishing vessels only indirectly limited fishing mortality. Thirdly, the limitations did not necessarily relate to a sustainable pattern of exploitation. And finally, the limitations were often not complied with.

The second regulatory step was the adoption of an explicit TAC and quota allocation arrangements. TACs and allocation schemes were adopted for North Atlantic swordfish in 1994, for Eastern and Mediterranean bluefin tuna in 1998, and for North Atlantic albacore in 2000. In all cases, the allocation arrangements were agreed upon in

²²⁷ One delegation expressed that a "system of quota is foreign to the spirit of the Convention" (ICCAT, *ibid*, at 79).

²²⁸ Some amendments were made in 1995 to allow incidental catches of bluefin tuna by UK (for Bermuda) amounting to 4 tonnes. In addition, some renegotiation of the allocation key among the three major fishing countries took place.

²²⁹ In the case of North Atlantic swordfish, Recommendation 1990-02 requests contracting parties to reduce the fishing mortality of fish weighing more than 25 kg in the area north of five degrees North latitude by 15 percent from recent levels. The reduction in fishing mortality shall be determined by the catch in 1988 or may be a reduction of fishing effort that will result in the equivalent reduction of fishing mortality. In the case of North Atlantic albacore, the contracting parties were to limit the number of vessels to the average number in the 1993-1995 period (Recommendation 1998-8 and 1999-05). All Recommendations are available online: ICCAT <<http://www.iccat.int>>.

informal sessions by the contracting parties actively fishing for the stocks. This was actually seen as the most effective way to reach agreement.²³⁰ The results of that negotiation were then endorsed by the respective Panel and the Commission.

The sharing agreements (allocation keys) were usually based on past performance and in particular the levels of catches in the period of reference for the measures limiting fishing mortality. However, a certain amount of negotiation not reflected in the official reports influenced the agreements. Allocation agreements often included exceptions for some States or categories of States, which aim was to allow small-scale fishing nations, and particularly coastal States, a certain level of development. These exceptions were usually introduced due the concern expressed by coastal developing States on the limitations that the quota regulations represented for their fishing development aspirations. Nevertheless, consent was usually difficult, TAC and allocations were often subject to objections, and dissatisfaction with the system, mostly by developing coastal States, became evident.

Section 3. TAC and Allocation in the Advent of the EEZ

The efforts of the organizations to achieve sound management of international fisheries were not timely and successful enough to stop the increasing trend of extending national jurisdiction. By 1982, the LOSC incorporated what had become the common practice of coastal States by the late 1970s: the right of coastal States to claim an exclusive economic zone (EEZ).²³¹ In recognizing an EEZ, the LOSC adopted a jurisdictional and spatial approach to the allocation of natural resources of the oceans. It was believed that this new distribution of the ocean's wealth would solve the cooperative problems faced by the international community, since most fisheries were within the EEZ of coastal States. In other words, the LOSC was believed to have solved the problems of the "commons" by re-allocating jurisdiction over fisheries resources to coastal States.²³²

²³⁰ That practice was expressly recognized and supported by the chairmen of the different panels as the best procedure to adopt allocation schemes. See for example: ICCAT, *Report for biennial period, 1996-97, Part II (1997), English version* (Madrid: ICCAT, 1998), Annex 10, Reports of the Panels 1-4, agenda item 6.b of Panel 3, at 162 online: ICCAT <<http://www.iccat.int>>.

²³¹ LOSC, articles 55 and following.

²³² The effect of the extension of jurisdiction was notorious in the North Atlantic: many fisheries previously managed by ICNAF and NEAFC were now within economic exclusive zones of one or more coastal States. These stocks were, therefore, no longer in the mandate of the organizations. However, a number of stocks

The new configuration of the oceans naturally impacted the jurisdiction and mandate of regional organizations, and the balances between coastal States and distant water fishing nations (DWFNs) in the adoption of TAC and allocation, as well as in the adoption of other management measures. The different RFMOs adapted differently, taking into account their particular realities, as will be described below.

The EEZ in the North West Atlantic

In January 1977, Canada extended its fisheries jurisdiction out to a distance of 200 nautical miles from its coast.²³³ At the same time, France and Denmark extended their jurisdiction to 200 nautical miles off the costs of Greenland and the islands of St. Pierre and Miquelon. U.S.A, in turn, extended its jurisdiction in March 1977, and withdrew from ICNAF on December 31, 1976.²³⁴ These unilateral extensions of fishing zones implied that many fisheries previously managed by ICNAF were no longer international fisheries. As a consequence, a major revision of both the ICNAF Convention and of management practices was necessary.

It was agreed that the quotas for stocks completely outside national jurisdiction (Division 3M Flemish Cap) would be set by the Commission on the recommendation of Panel 3. Stocks of common concern to Denmark and Canada in Subarea 1 and Statistical Area 0 would be considered by bilateral negotiations between the two countries. For shared stocks, or stocks completely inside the Canadian EEZ, Canada sought the scientific advice of STACRES and undertook a series of informal intergovernmental consultations during the ICNAF meeting. It referred the results of those consultations to a joint Panel either for information (in the case of stocks completely inside their fishing zone) or for recommendation and adoption by the Commission (in the case of straddling stocks). This agreement paved the way for current practices in NAFO: the organization manages independently the discrete stocks occurring east of the EEZ limit, and jointly

were still straddling between jurisdictions, or migrating through extensive maritime zones under different jurisdictions. With respect to these stocks, the organizations remain competent, albeit through amended Conventions that reflect the new reality of the international law of the sea.

²³³ *Territorial Sea and Fishing Zones Act*, Order in Council published on 1 November 1976 (effective 1 January 1977).

²³⁴ *Fishery Conservation and Management Act*, Pub. L. 94-265 (1976) 90 Stat. 331 (codified as amended at 16 U.S.C. § 1801-1882).

with Canada the stocks that straddle the 200-mile limit. The number of stocks managed under the jurisdiction of the newly established NAFO decreased to 10 stocks of common interest,²³⁵ a number that over the years increased to 20 stocks regulated today.²³⁶

In parallel to this short term arrangement, the ICNAF members initiated a Diplomatic Conference on Future Multilateral Cooperation in the Northwest Atlantic Fisheries with the aim of preparing a new Convention to address the international management of fisheries in the Northwest Atlantic in this new era, and to provide a smooth transition to this new regime. The Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, done at Ottawa, on 24 October 1978, came into force on 1 January 1979, with the ratification by seven signatories.²³⁷ The new Convention has a provision dealing with allocation of catches. Article XI(4) states that

[p]roposals adopted by the Commission for the allocation of catches in the Regulatory Area shall take into account the interests of Commission members whose vessels have traditionally fished within that area, and, in the allocation of catches from the Grand Bank and Flemish Cap, commission members shall give special consideration to the Contracting Party whose coastal communities are primarily dependent on fishing for stocks related to these fishing banks and which has undertaken extensive efforts to ensure the conservation of such stocks through international action, in particular, by providing surveillance and inspection of international fisheries on these banks under an international scheme of joint enforcement.

The contracting party referred in the second part of the provision is understood to be Canada only.²³⁸ This provision was recognition of the ICNAF guidelines on allocation. Indeed, at least in the first meetings, allocations mostly rolled over from the previous ICNAF work and were not discussed explicitly.

²³⁵ See: NAFO quota table adopted by ICNAF in its Plenary Session on 6 June 1978 in Chepel, *supra* note 174, at 216.

²³⁶ See: NAFO Quota Table and Effort Allocation Scheme 2010 in NAFO, *Conservation and Management Measures 2010*, F.C. Doc. 10/1 Serial No. N5740, Annex 1.A and 1.B, online: NAFO <<http://www.nafo.int>>.

²³⁷ Canada, Cuba, the EEC, the German Democratic Republic, Iceland, Norway, and the USSR.

²³⁸ See: NAFO, *Report of the Working Group on Allocation of Fishing Rights to Contracting Parties of NAFO and Chartering of Vessels Between Contracting Parties* (GC Doc. 99/4), 13-15 April 1999, Halifax, Nova Scotia, Canada, in NAFO, *Meeting Proceedings of the General Council and Fisheries Commission for 1999* (Dartmouth, NS: NAFO, 2000) 61, at 64. During the reform process of the NAFO Convention, proposals were tabled to amend this article in order to include a reference to coastal States, in plural (See, for example: NAFO, *Report of the Working Group on the Reform of NAFO* (GC Doc. 06/1), 25-28 April 2006, Montreal, Quebec, Canada, online: NAFO <<http://www.nafo.int>>). The proposal was not approved.

The EEZ in the North East Atlantic

Following the extension of areas under national jurisdiction in 1977, the member States of NEAFC also negotiated a new Convention to adapt to the new political reality. The Convention on Future Multilateral Co-operation in North-East Atlantic Fisheries,²³⁹ was signed on 18 November 1980, and entered into force on 17 March 1982. This new Convention recognizes the competence for the Commission to, inter alia, establish total allowable catches and their allocation to contracting parties, and regulate the amount of fishing effort and its allocation to contracting parties, in the high seas of the North East Atlantic.²⁴⁰ It does not include, however, any provision regarding criteria for allocation.

Despite the new mandate, in practice NEAFC's role in establishing conservation and management measures suffered. The high seas area (i.e. Regulatory Area) in the Convention Area was reduced considerably.²⁴¹ As a consequence, the number of stocks that required international management decreased, and excluded most of the economically important ones.²⁴² In addition, the over-exploited status of the stocks had affected their distribution, and they rarely extended to the high seas areas. Consequently, former NEAFC stocks were subsequently managed by coastal States and by bilateral or multilateral fisheries agreements in the case of transboundary stocks.²⁴³ In addition, many of the original members of NEAFC withdrew from the organization when joining as members of the European Union.

For these reasons, following the implementation of EEZ, NEAFC was considered as "a forum for consultation and exchange of information in the context of a regime which would give coastal States very full powers to regulate their own zones as they saw fit."²⁴⁴ Its significance to fisheries managements was lost for many years.²⁴⁵

²³⁹ NEAFC Convention, *supra* note 93.

²⁴⁰ *Ibid*, article 7(e).

²⁴¹ The high seas areas within the NEAFC Convention Area was reduced to the Reykjanes Ridge, extending to the Azores, the Banana hole of the Norwegian Sea, and the Barent Sea Loophole (where quotas are set by Norway and Russia).

²⁴² Sen, *supra* note 197, at 92.

²⁴³ That was the case, for example, of the North East Arctic cod, which has been managed by the Norwegian-Russian fisheries commission from 1977.

²⁴⁴ D.J. Driscoll and N. McKellar, "The Changing Regime of North Sea Fisheries" in C.M. Mason (ed.) *The Effective Management of Resources: the International Politics of the North Sea* (London: Nichols Publishing Co., 1979) 125, at 138.

²⁴⁵ Gezelius, *supra* note 129, at 36. According to Sen, following the new Convention and until 1995, NEAFC only adopted two conservation and management measures, both of them of technical nature:

Currently, NEAFC manages mainly four fish stocks with a high seas component.²⁴⁶ TACs and allocations were only agreed upon in 1995.²⁴⁷ Since then, several years agreement has not been possible.²⁴⁸ Coastal States have an important role in the conservation and management of stocks. Some stocks are, indeed, managed primarily by coastal States. In the cases of Norwegian spring spawning herring, mackerel and blue whiting, the respective coastal State groups adopt management measures (including TAC and allocations) for the whole distribution area of the fish stocks, and propose those measures for adoption by NEAFC for areas beyond their jurisdiction.²⁴⁹ If agreement by the coastal States is not reached, NEAFC in turn does not adopt any management measures.²⁵⁰ In the case of pelagic redfish, management rests primarily on NEAFC. The organization adopts management measures and allocations for the area of distribution of the stock inside and beyond the jurisdiction of contracting parties.²⁵¹

The EEZ in ICCAT

The ICCAT Convention signed in 1966 considers as the area of application all waters of the Atlantic Ocean, including the adjacent seas. It adds that nothing in it shall be considered as affecting the rights, claims or views of any contracting party in regard to the extent of jurisdiction over fisheries under international law. Contrary to the processes in NAFO and NEAFC, the unilateral extensions of exclusive economic zones during the 70's and early 80's did not trigger a review of the Convention. The practice of the States did not make jurisdictional distinctions between States in whose fishing zones the highly migratory stock occurs and those considered DWFNs. The allocation keys did not reflect

minimum mesh size for capelin (1985) and minimum mesh size for blue whiting (1987) (Sen, *supra* note 197, at 93).

²⁴⁶ The species are: Norwegian Spring Spawning (Atlanto-Scandian) herring, mackerel, blue whiting and oceanic pelagic redfish (NEAFC, Performance Review Report, *supra* note 81, at 11). NEAFC also has jurisdiction, and has started management, of Rockall haddock and other deep-seas species of less economic importance.

²⁴⁷ Sen, *supra* note 197, at 96-98; NEAFC, Performance Review Report, *ibid*, Appendix II to VII, at 65-70. An allocated quota was agreed for Pelagic Redfish fishing year 1996, for Norwegian spring spawning herring in 1998, Northeast Atlantic mackerel in 2000. Precautionary unallocated quota was adopted for Blue whiting in 1992 (*ibid*, Appendix II to VII, at 65-70).

²⁴⁸ NEAFC, Performance Review Report, *ibid*, at 15, and Appendix II to VII, at 65-70.

²⁴⁹ *Ibid*, at 17.

²⁵⁰ *Ibid*, at 17.

²⁵¹ *Ibid*, at 39. It must be noted, however, that under the NEAFC decision-making process, the consent of the coastal member State is required for the measure to have effect in its EEZ.

those two groups either. Of course, the coastal States participate in the negotiations, concur through their votes in the adoption of a decision, and have the alternative of filing an objection to an allocation scheme if so warranted.

The perception that the adoption of EEZs by coastal State members did not demand a revision of ICCAT Convention, or that the allocation decision-making process and allocation keys did not require jurisdictional distinctions, has as a plausible explanation in an historical interpretation of the LOSC with respect to highly migratory stocks. Indeed, the initial interpretation of the LOSC by some States, and particularly the USA, was that coastal States had no jurisdictional claim over highly migratory species within their EEZs.²⁵² This interpretation was officially reversed when the U.S. revised the Magnuson Fishery Conservation and Management Act in the early 1990s.²⁵³ However, when the first allocation was established in the 1982 meeting between U.S., Canada, and Japan, it is to be assumed that there was pressure to adopt an allocation practice that respected that early interpretation. And as has been noted, that first allocation set the model for the allocations to follow.

It should be noted that those early practices, that in many respects are maintained to this day, have created a certain amount of uncertainty in the legal regime. Indeed, it appears to be no “official” interpretation on how the rights of coastal States and the jurisdiction of ICCAT interact.²⁵⁴ This is, mostly, an un-addressed issue that has generated conflict in allocation discussions, as will be seen further below.

Section 4. Allocation in Global Instruments and Fora: UNFSA and Beyond

The geographical approach adopted by the LOSC promptly proved to be insufficient to address the problems of cooperative management of stocks that occur both within and outside areas under national jurisdiction, – i.e. straddling stocks and highly

²⁵² Munro, Van Houtte and Willmann, *supra* note 7, at 36.

²⁵³ *Ibid.*

²⁵⁴ The Performance Review of ICCAT, in relation to compatibility of measures for areas under national jurisdiction and those for the high seas, notes: “The ICCAT Convention expressly reserves the rights, claims or views of its Parties with regard to the “extent of jurisdiction over fisheries” under international law. This may imply that it is up to the coastal State to interpret, for example, to what extent the ICCAT measures apply within its own Exclusive Economic Zone (EEZ). Thus, the possibility may exist depending on the position of a coastal State that this provision of the ICCAT Convention comes in conflict with the duties under UNFSA to ensure the compatibility of conservation and management measures throughout the migratory range of the tuna species” (ICCAT, Performance Review Panel, *supra* note 81, at 17).

migratory stocks - or exclusively in the high seas – i.e. discrete stocks. The LOSC did not significantly alter the legal framework for high seas fishing. In particular, the LOSC did not address the conflict of interests produced by ever scarcer resources and increasing demand, and thus, competition.

The problem was particularly acute with respect to straddling stocks and highly migratory stocks. Coastal States, in their newly acquired EEZs, felt that the still unregulated areas of the high seas undermined their sovereign rights. The tension was, at that time, particularly a tension between coastal States and DWFNs.

The issue was discussed in different international fora, not only addressing fisheries but also addressing sustainable development. The issue of straddling stocks and highly migratory stocks was, indeed, the most controversial issue discussed in Chapter 17 of the oceans during the 1992 UN Conference on Environment Development (UNCED or 1992 Rio Conference); the only issue outstanding after Preparatory Conference III and Preparatory Conference IV; and one that at the end could not be tackled directly. All that could be achieved was to convene an international conference to discuss the issue. Chapter 17 of Agenda 21²⁵⁵ includes the following action:

17.50. States should convene, as soon as possible, an intergovernmental conference under United Nations auspices, taking into account relevant activities at the sub-regional, regional and global levels, with a view to promoting effective implementation of the provisions of the United Nations Convention on the Law of the Sea on straddling fish stocks and highly migratory fish stocks. The conference, drawing, inter alia, on scientific and technical studies by FAO, should identify and assess existing problems related to the conservation and management of such fish stocks, and consider means of improving cooperation on fisheries among States, and formulate appropriate recommendations. The work and the results of the conference should be fully consistent with the provisions of the United Nations Convention on the Law of the Sea, in particular the rights and obligations of coastal States and States fishing on the high seas.

The mandate of Agenda 21 explicitly prescribed that the work and the results of the Conference should be fully consistent with the LOSC. This was the origin of the negotiation that adopted the UNFSA in December 1995.

²⁵⁵ United Nations, *Report of the United Nations Conference on Environment and Development*, CEDOR, Rio de Janeiro, 3–14 June 1992, A/CONF.151./26/Rev.1 (Vol. I), Agenda 21, Chapter 17, Protection of the ocean and all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources.

The conference was prepared by other meetings. In particular, a Meeting of the Group of Technical Experts on High-Seas Fisheries, held at United Nations Headquarters from 22 to 26 July 1991; and an FAO consultation on high seas fishing held in September 1992.

Both preparatory conferences seem to conclude, or even just assume, that limiting fishing effort or catches, and allocating the total allowable effort or catch among the participating member States, constitute fisheries management best practices.²⁵⁶ Both recognized, as well, the difficulties of achieving allocation agreements.²⁵⁷ Both conference reports also emphasized the challenges of new entrants and participation in regional fisheries management organizations, and highlighted the special challenges that participation in high seas fisheries poses for developing countries.

The UNFSA Conference, however, did not address allocation of fishing opportunities directly. Neither the document “A Guide to the issues before the

²⁵⁶ DOALOS, *supra* note 126, para. 112 at 34: “As contemplated by article 119, a total allowable catch has to be set for each high seas stock; a quota management system then requires individual quotas to be allocated to states engaged in fishing in the area. A quota would give a state an unequivocal ‘right to fish’ exercisable in accordance with and to the extent of that quota.”

²⁵⁷ The FAO 1992 Conference Report stated that “allocation was recognized as a major issue in management of high seas fisheries. In this respect the Consultation noted that there were difficult issues to be addressed in balancing the rights of all States to participate in high seas fisheries with the need to manage such fishing activity so as to ensure long-term sustainable production” (FAO, *Report of the Technical Consultation on High Seas Fishing*, Rome, 7-15 September 1992, FAO Fisheries Report No. 484 (Rome: FAO 1993) at 9). The papers presented at the conference state that: where resources straddle EEZs and high seas areas, a division between coastal States and the high seas areas based on negotiated principles will be required before allocations are made to contracting parties operating on the high seas. Consistent with the non-derogation of sovereignty principle, coastal States will be able to determine independently, in accordance with domestic laws and policies how their shares of the resource will be harvested. However, coastal States with respect to the exploitation of their EEZ resources and DWFNs with respect to high seas operations, would be obliged to act consistently with the general provisions of the management arrangements in place. While the division of resources between coastal States and the high seas will be contentious, the need for coastal States to act consistently with a management regime of which they are part is likely to be readily accepted as a requirement for effective management. (p. 33). Having established high-seas effort levels based on objective scientific parameters, allocation among contracting parties is required. This task is a highly sensitive and political undertaking which, despite the possible existence of guidelines or criteria for allocating shares, will be subject to intense negotiation (paragraph 34). The Meeting of the Group of Technical Experts on High-Seas Fisheries, held at United Nations headquarters from 22 to 26 July 1991, also highlights that “the critical issue is how these considerations are to be weighed and balanced. It is clear that while the existence of a traditional fishery in the area may be a factor, it cannot be regarded as decisive, as this would ignore the claims of new entrants and possibly be to the detriment of developing countries. However, there is no basis for a State to claim that it is entitled to a quota that will ensure the economic viability of its fishery” (DOALOS, *ibid*, paragraph 115 at 34).

Conference”,²⁵⁸ prepared by the Chairman (A/CONF/164/10), 24 June 1993, and presented in the first substantive session, nor the subsequent texts presented during the second, third and fourth substantive session,²⁵⁹ addressed the issue of distribution of fishing effort or catches.²⁶⁰ This was despite the fact that since the very first document presented to the Conference, TACs were mentioned as a necessary conservation and

²⁵⁸ The guide recognizes as a responsibility of the RFMO/As to provide a forum for agreeing on the allocation of quotas to participating States or other measures relating to the regulation of fishing effort. It also considers the issues of membership or participation, new entrants, non-parties. While analyzing the topic of new entrants, it was stated that “negotiations for a quota or a share in the fishing effort for new entrants should fully respect the interests of existing member states, especially where a fishery resource is already being fully utilized, and should take into account other relevant factors including the existence of a moratorium on fishing”; and that the establishment of conservation and management measures requires “special consideration for new entrants from developing countries of the same region or subregion”. The issue of developing states was not raised as an independent issue in this document (UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, New York, 12-30 July 1993, “A Guide to the Issues Before the Conference”, prepared by the Chairman, A/CONF.164/10, 24 June 1993, online: DOALOS <<http://www.un.org/Depts/los/index>>, and included in Jean-Pierre Lévy and Gunnar G. Shram (compiled and introduced), *United Nations Conference on Straddling Fish Stocks and Highly Migratory Stocks: Selected Documents* (The Hague: Kluwer Law, 1996), at 55).

²⁵⁹ Negotiating text (prepared by the Chairman of the Conference), A/CONF.166/13, 23 November 1993, in Lévy and Shram, *ibid*, at 73; Revised negotiating text (prepared by the Chairman of the Conference), A/CONF.164/13/Rev.1, 30 March 1994, in Lévy and Shram, *ibid*, at 437; Draft agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (prepared by the Chairman of the Conference), A/CONF.164/22, 23 August 1994, in Lévy and Shram, *ibid*, at 621; Draft agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (prepared by the Chairman of the Conference), A/CONF.164/22/Rev.1, 11 April 1995, in Lévy and Shram, *ibid*, at 671.

²⁶⁰ A few remarks concerning the distribution of wealth of the ocean were, however, made during the negotiation of the text. Those remarks took place while discussing the special requirements of developing States. Some delegations stressed that the assistance to developing States should enable them to develop a fishery not only in their EEZs, but also in the high seas (see, for example: IISD, Earth Negotiations Bulletin, vol. 7, UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, Issue 15, 29 July 1993, Non-Parties to a Subregional or Regional Agreement or Arrangement, online: IISD <<http://www.iisd.ca>>). Emphatically, developing States “expressed their intention to develop distant water fishing fleets and argued that the high seas fisheries should not be ear-marked for developed States that are already harvesting” (IISD, Earth Negotiations Bulletin, vol. 7, UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, Issue 10, 22 July 1993, Interests of Developing Countries, and Summary Issue 16, 12-30 July 1993, both online: IISD <<http://www.iisd.ca>>). It was proposed that they should be granted favorable access to the high seas. (IISD, Earth Negotiations Bulletin, vol. 7, UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, Issue 13, 27 July 1993, Special Conditions of Developing Countries, online: IISD <<http://www.iisd.ca>>). It was noted, by observers, that the beginning of the Conference was a hybrid between UNCLOS and UNCED (IISD, Earth Negotiations Bulletin, vol. 7, summary issue 16, *ibid*, A Brief Analysis of the Conference). It seemed that the discussion on opportunities for developing States that was pivotal in the UNCED negotiation was spilling to this conference. However, this trend was contended by some delegates, who insisted that the conference had little to do with sustainable development and much more with the Law of the Sea.” (IISD, Earth Negotiations Bulletin, vol. 7, UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, summary issue 30, 14-31 March 1994, A Brief Analysis of the Conference, online: International Institute for Sustainable Development IISD <<http://www.iisd.ca>>).

management measure, and allocation of fishing opportunities (quotas or other measures relating of the regulation of fishing effort) were included as a matter of responsibility for RFMO or regional fisheries management arrangements.²⁶¹ It seemed that the delegates had a common interest in not raising that topic, probably because a discussion on allocation would aggravate the coastal State – DWFN division that was predominant during the negotiation.²⁶²

The fact that the UNFSA did not address directly or explicitly the issue of allocation, does not mean that it did not include several provisions that have an allocation implications. UNFSA could not avoid the conflict of interests that were at the basis of the Conference itself. The issues with allocation implications addressed are: the compatibility of measures adopted for areas under national jurisdiction and those adopted for the high seas; participation in regional fisheries management organizations; fishing opportunities for new members; and the special requirements of developing States.²⁶³ These provisions will be analyzed in more detail in the next chapter.

The provisions on those topics provide some guidance on distributional aspects. It is widely agreed, however, that they fall short in providing a complete legal framework that addresses the main question on how to balance the different rights, interests and aspirations over high seas fish stocks.²⁶⁴ So, the search for a legal framework for allocation decisions continues.

There seems to be widespread agreement that the development of a more refined framework for allocation decisions must be undertaken region by region and stock by stock; and as a consequence that this is a task for the various RMFOs. That opinion was

²⁶¹ The function of the RFMO was maintained in the negotiating text prepared by the Chairman of the Conference and presented to the second session of the Conference held in July 2003, and reissued in November 2003, A/CONF.164/13, *supra* note 259, at 73; in the revised negotiating text presented to the third session of the Conference held in March 1994, A/CONF.164/13/Rev.1, *supra* note 259, at 437; the Draft Agreement presented at the fourth session of the Conference held in August 1994, A/CONF.164/22, *supra* note 259, at 621; and the revised Draft Agreement presented to the fifth session of the Conference held in April 1995, A/CONF.164/22/Rev.1, *supra* note 259, at 671.

²⁶² There were exceptions to this trend. Australia presented a document Comments on Issues Before the Conference Submitted by the Delegation of Australia, 1 July 1993 (A/CONF.164/L.9) containing a list to assist in identifying issues for consideration and in developing the structure of the work programme for the next session of the Conference. The list included, among other: quota allocation mechanisms/criteria, and access to high seas fisheries by developing countries (Comments on Issues before the Conference submitted by the Delegation of Australia, 1 July 1993, A/CONF.164/L.9, in Lévy and Schram, *ibid*, at 139, paragraph 5 and 8).

²⁶³ The current legal framework will be analyzed in detail in chapter 3.

²⁶⁴ Molenaar, "Participation", *supra* note 16, at 467; Agnew et al., *supra* note 10, 19.

expressed already in the FAO Report of the Technical Consultation on High Seas Fishing held prior to the UNFSA Conferences.²⁶⁵ It has been thereafter reinforced in the most important development and fisheries fora. The World Summit on Sustainable Development in Johannesburg in 2002 addressed the issue in the Johannesburg Plan of Implementation,²⁶⁶ Chapter IV, paragraph 31, which includes the following as an action required to achieve sustainable fisheries:

- (e) Encourage relevant regional fisheries management organizations and arrangements to give due consideration to the rights, duties and interests of coastal States and the special requirements of developing States when addressing the issue of the allocation of share of fishery resources for straddling stocks and highly migratory fish stocks, mindful of the provisions of the United Nations Convention on the Law of the Sea and the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, on the high seas and within exclusive economic zones.

The issue was, as usual, not easy to settle. It was one of the outstanding issues after the Preparatory Conference IV, and required careful re-drafting before it was adopted by the participating States.²⁶⁷

The Johannesburg Plan of Implementation was considered at the subsequent 2005 St. John's Conference on the Governance of High Seas Fisheries and the United Nations Fish Agreement, Moving from Words to Action. The Ministerial Declaration adopted in a closed meeting by 19 of the attending Ministers of Fisheries²⁶⁸ gathered in St. John's during the Conference reaffirms the commitment to the implementation of the relevant

²⁶⁵ FAO, *Report of the Technical Consultation on High Seas Fishing*, *supra* note 257, while addressing the issue of participation of developing countries in high seas fisheries, states in paragraph 90 that: "It was considered allocation of high seas resources be examined on a region by region or stock by stock basis and be subject to an agreement of all States concerned."

²⁶⁶ *Johannesburg Plan of Implementation adopted by the 2002 World Summit on Sustainable Development*, online: UN Department of Economic and Social Affairs, Division for Sustainable Development <<http://www.un.org/esa/dsd/index.shtml>>).

²⁶⁷ More details on the changes are considered in chapter 5.

²⁶⁸ Australia, Canada, Chile, Ivory Coast, Home Rule Government of The Faroe Islands (Denmark), European Union, Iceland, Indonesia, Japan, Kenya, Morocco, Namibia, Norway, Papua New Guinea, South Africa, Tonga, Trinidad and Tobago, Tuvalu, U.S. Information available at the St. John's 2005 Conference on the Governance of High Seas Fisheries and the United Nations Fish Agreement, Moving From Words to Action, online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca/fgc-cgp/index_e.htm>

parts of Agenda 21 and Johannesburg Plan of Implementation.²⁶⁹ Furthermore, the Ministers committed to work with RFMO/As to implement a decision making process that

(...) uses criteria for allocations which properly reflect the interests and needs of coastal States and developing States, including small island developing States, in whose areas of national jurisdiction the fish stocks also occur, as well as those of fishing States.²⁷⁰

Shortly after this meeting, in July 2005 the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea made another, albeit rather neutral, reference to allocation criteria as well. Its report simply welcomed and urged efforts by regional fisheries management organizations and arrangements to “develop criteria for allocations”.²⁷¹

Four months afterwards, in November 2005, the Sixtieth Session of the United Nations General Assembly adopted Resolution 60/31 on Sustainable fisheries,²⁷² which in the section on subregional and regional cooperation included a paragraph urging RFMO/As to “ensure that their decision-making processes (...) develop criteria for allocation which reflects, where appropriate, the relevant provisions of the Agreement”.²⁷³ It is compromise wording, since the criteria are only required to reflect “where appropriate” the “relevant” provisions of the Agreement. As mentioned above,

²⁶⁹ *St. John's Ministerial Declaration*, adopted by the Round Table of Fisheries Ministers meeting in St. John's, Newfoundland, Canada, on 2 May 2005, preamble, paragraph 10, online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca/fgc-cgp/index_e.htm>.

²⁷⁰ *Ibid.*, paragraph 4 A(iv).

²⁷¹ United Nations, *Report on the Work of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea at its Sixth Meeting*, Letter dated 7 July 2005 from the Co-Chairpersons of the Consultative Process addressed to the President of the General Assembly, A/60/99 [hereafter UNICPOLOS 2005 Report], para. 7(b) subparagraph ii), at 4, online: DOALOS <<http://www.un.org/Depts/los/index>>.

²⁷² Resolution 60/31 adopted by the U.N. General Assembly during its Sixtieth Session, on Sustainable Fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments, A/RES/60/31, 10 March 2006, online: United Nations Office of Legal Affairs, Division for Ocean Affairs and the Law of the Sea <www.un.org/Depts/los>.

²⁷³ *Ibid.*, paragraph 59. It is worth mentioning that resolutions issued by UNGA since 2003, and before that as resolutions regarding the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, included references to subregional and regional cooperation. For the first time, however, the resolution included a reference to decision-making processes, in general, and allocation criteria, in particular. This is probably due to the influence of the St. John's Conference held just two months before.

and will be analyzed further in the next chapter, the Agreement does not give much guidance on what interests the criteria should (primarily) reflect. The resolution on sustainable fisheries adopted the following year maintained and expanded the reference, urging regional fisheries management organizations to

(...) improve transparency and to ensure that their decision-making processes are fair and transparent (...) address participatory rights, including through, inter alia, the development of transparent criteria for allocating fishing opportunities which reflects, where appropriate, the relevant provisions of the Agreement, taking due account, inter alia, of the status of the relevant stocks and the respective interests in the fishery.²⁷⁴

This language has been maintained in subsequent resolutions.

Another recent instance where the allocation of fishing opportunities has been debated in global fora is the work developed by the Informal Meeting of the States Parties to the UNFSA to agree on elements for assessing the adequacy and effectiveness of the Agreement, in preparation of the Review Conference.²⁷⁵ One of the elements agreed upon was “participatory rights – extent to which RFMOs have agreed, as appropriate, on participatory rights, such as allocation of allowable catch or levels of fishing effort”.²⁷⁶

²⁷⁴ Resolution 61/105 adopted by the U.N. General Assembly during its Sixty First Session, on Sustainable Fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments, A/RES/60/31, 6 March 2007, paragraph 72, online: United Nations Office of Legal Affairs, Division for Ocean Affairs and the Law of the Sea <www.un.org/Depts/los/>.

²⁷⁵ The UNGA requested the Secretary-General to consult with the states parties to the UNFSA, once it enters into force, for, inter alia: considering the regional, subregional and global implementation of the Agreement; making any appropriate recommendations to the General Assembly on the scope and content of the annual report of the Secretary-General relating to the Agreement; and preparing for the review conference to be convened by the Secretary-General pursuant to article 36 of the Agreement (Resolution 56/13 on the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, A/RES/56/13, adopted by the United Nations General Assembly during its Fifty-sixth Session, 13 December 2001, online: DOALOS <www.un.org/Depts/los/index.htm>, para.6). Acting on this decision, the State parties to UNFSA have held nine rounds of Informal Consultations. The fourth and fifth informal consultations (2005 and 2006) where mostly devoted to prepare the 2006 Review Conference of UNFSA.

²⁷⁶ UN Review Conference on the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, New York, 22 to 26 May 2006, *Elements for assessing the adequacy and effectiveness of the Agreement*, A/CONF.210/2006/5, at 3, online: DOALOS <<http://www.un.org/Depts/los/index.htm>>.

The Review Conference of UNFSA provided yet another opportunity for the issue to be raised in international fora. During the Conference it was recognized by the delegates that, while “articles 10(b) and 11 of [UNFSA] provided the framework for participatory rights”, and although “some regional fisheries management organizations have undertaken efforts to address participatory rights and allocation issues”, “further work is needed to develop more detailed criteria for participatory rights, bearing in mind the importance of addressing social and economic interests in a manner consistent with conservation objectives.”²⁷⁷ The Conference agreed to recommend that States, individually and collectively, through regional fisheries management organizations, “address participatory rights through, *inter alia*, the development of transparent criteria for allocating fishing opportunities, taking due account, *inter alia*, of the status of the relevant stocks and the interests of all those with a real interest in the fishery”.²⁷⁸

The discussions on allocation issues were not easy during the Review Conference either. An observer to the Conference noted that “a few non-parties felt that key issues such as trade measures and participatory rights were being sidelined in the drafting, suggesting that the process was being led by a restricted group of countries”.²⁷⁹

The negotiation history of these non-binding instruments of international law deserves two observations. First, the negotiating parties are reluctant to address the topic of participatory rights. It is often one of the most difficult issues to reach agreement on, and one that always requires extensive negotiations and careful drafting. In particular, special care has been given to ensure a neutral language in the recognition of the interests

²⁷⁷ The remark was made among calls to pay attention to States with limited capacity, and to improve the main criteria of historical catches to ensure “a more equitable distribution of the resources”. Similar remarks were made also while dealing with participation in RFMOs and overcapacity. The need to “enhance transparency and predictability regarding regional organizations’ regulations relating to allocations” was also expressed.

²⁷⁸ United Nations, *Report of the Review Conference on the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, prepared by the President of the Conference, A/CONF.210/2006/15, 5 July 2005, Annex: Outcome of the Review Conference, Section II on mechanisms for international cooperation and non-members, para. 32(c), at 37, online: DOALOS <<http://www.un.org/Depts/los/index>>.

²⁷⁹ ISSD, Earth Negotiations Bulletin, volume 7 Nr. 58, Wednesday 24 May 2006, UNFSA Review highlights Tuesday 23 May 2006. According to the same Bulletin, China, Mexico, Brazil and Colombia intervene to highlight the importance of establishing an “equitable and science-based quota system”, stressing that the “current allocation disproportionately favors established fleets, including those supported by subsidies”. The Pacific Island Forum and Peru also highlighted the need of equitable allocation mechanisms.

that need to be taken into account in the allocation processes, in particular, if the document is discussed in a fisheries forum.²⁸⁰ It seems that many States don't have an interest in opening such discussion, at least in the global fora.

The second observation is that negotiating States have explicitly avoided the word "equitable" while describing the qualities that the allocation criteria should possess. Instead, adjectives such as "transparent" and "according to international law" have been preferred. This will be addressed in more detail in chapter 5.

Since the predominant view is that allocation criteria and mechanisms have to be developed by the RFMOs, the next section will address how that has been done at the regional level to date. However, it should be mentioned that certain voices have advocated that at least some role should be played by global fora. During the negotiation process of UNFSA, some statements were made in that direction, albeit in a very limited and indirect way.²⁸¹ In recent years, however, the idea has been explicitly proposed as a means to facilitate the negotiation process of allocation in RFMOs. Michael Lodge and Satja Nandan suggest that FAO could support the efforts of RFMOs to develop and apply equitable allocation criteria by elaborating guidelines on the implementation of articles

²⁸⁰ The early declarations made at the World Summit on Sustainable Development stressed the need to "give due consideration to the rights, duties and interests of coastal States and to the special requirements of developing States when addressing the issue of the allocation of share of fishery resources for straddling stocks and highly migratory fish stocks." (*Johannesburg Plan of Implementation*, *supra* note 266, para. 31.e). Subsequent declarations were made more neutral calling either to "develop criteria for allocation" (UNICPOLOS 2005 Report, *supra* note 271, para 7.b (ii) at 4); to develop criteria "which reflects, where appropriate, the relevant provisions of the Agreement" (U.N. General Assembly Resolution 60/31, *supra* note 272, paragraph 59); or to use "criteria for allocations which properly reflect the interests and needs of coastal States and developing States, including small island developing States (...) as well as those of fishing States" (St. John's 2005 Ministerial Declaration, *supra* note 269, para. 4 A subparagraph iv).

²⁸¹ A paper submitted by Australia recognized that: "there is a need to balance between the development of global standards/principles for management and conduct of fishing operations and the recognition of specific regional requirements" (Comments on Issues before the Conference, A/CONF.164/L.9, *supra* note 262, at 139). It should be noted that the reference was not explicitly directed to allocation discussions. The statement made by the Chairman of the Conference at the Opening of the Fifth Session, held on 27 March 1995, A/CONF.164/26, 31 March 1995, identified several actions needed, including resource allocation decisions. It then states that "the problems we are addressing do not belong to one region or one group of States, but concern the international community as a whole. Our solution must be global in nature. Their effects must be to bring order to the oceans and to promote cooperation among States. The solutions must reflect the balance of interests that State have in matters relating to fisheries" (Statement made by the Chairman of the Conference at the Opening of the Fifth Session, held on 27 march 1995, A/CONF.164/26, 31 March 1995, para. 15, in Lévy and Schram, *supra* note 258, at 707).

10 and 11 of UNFSA,²⁸² and recommends action by FAO and RFMOs to develop equitable allocation criteria.²⁸³ Lodge, indeed, has stated broadly that

[t]here are strong arguments in favour of a global approach to (...) the allocation on an equitable basis of shares of harvests and fleet capacity. International fisheries are no longer the exclusive preserve of a few technologically advanced States. If we are to achieve long-term sustainable management of international fisheries, the key challenge for the future will be to establish a globalized regime in which all nations have the incentive to cooperate.²⁸⁴

Section 5. Developments in Regional Allocation Frameworks

As described in the previous section, there is a perceived need for RFMOs to develop criteria for allocation “according to international law”. The need to develop allocation criteria was triggered not only at the global level, but also within RFMOs. In particular, there was an increasing dissatisfaction with traditional allocation practices which based allocation mainly on the criterion of historical catches. This criterion, it was argued, did not consider adequately the different rights, interests and aspirations that were recognized in the global legal framework.

This dissatisfaction with the *status quo* triggered difficult processes of revision of existing allocation criteria in two organizations: NAFO and ICCAT. It also led to new RFMOs devoting specific provisions to allocation. Both these processes are described below.²⁸⁵

The Revision of the Allocation Framework in NAFO

Allocations in NAFO were roll-over year after year, tracing their origins back to the ICNAF era, albeit accommodations were made for the EC to become a member. Other “new members”, however, were dissatisfied with allocation scheme. In 1997, US proposed the establishment of a working group to address the problem of allocation of

²⁸² Michael W. Lodge and Satya 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 *The International Journal of Marine and Coastal Law* 345, at 375.

²⁸³ Lodge and Nandan, *ibid*, at 379.

²⁸⁴ Michael W. Lodge, “Introduction and Overview”, in Lodge et al., *supra* note 11, at xi.

²⁸⁵ It should be noted, however, that a more detailed analysis of the current allocation criteria is going to be undertaken in the next chapter.

fishing opportunities to contracting parties.²⁸⁶ The proposal was supported by the meeting, and it was agreed that it would meet before March 1998.²⁸⁷

The Working Group on Allocation of Fishing Rights to Contracting Parties met three times on March 4 to 6 1998, April 13 to 15 1999, and March 28 to 30 2000. The working group promptly agreed that rules should be written regarding how NAFO would deal with future new members in terms of allocation. After the second meeting, the group submitted a draft resolution on this topic that was adopted by the General Council in its 21st Annual Meeting on September 1999.²⁸⁸

Agreement on guidelines on allocation of fishing opportunities to contracting parties, however, proved a much harder task. There was a profound conflict between the position of the member States that sought a revision of the allocation agreements (mainly, US and Korea) and those who did not want to affect the *status quo* (EU, Canada, etc.). The different views of the member States proved insurmountable. At the September 2000 meeting, the Fisheries Commission decided that the working group would not meet in 2001. It was noted by a delegate that “there is a lack of political will among contracting parties to move the issue forward”.²⁸⁹

In 2002 the Fisheries Commission reopened the issue in the agenda by providing terms of reference to the working group, which included the need to “develop options whose terms are explicit and predictable for allocation to Contracting Parties from current fisheries with NAFO TACs, fisheries previously not subject to NAFO TACs, new fisheries, closed fisheries being reopened, and fisheries for which fishing rights are or will be allocated in terms other than quotas (e.g. effort limits).” Pursuant to this

²⁸⁶NAFO, *Report of the 19th Annual Meeting of the Fisheries Commission*, 15-19 September 1997, St. John's, Newfoundland, Canada, (FC Doc. 97/14), in NAFO, *Meeting Proceedings of the General Council and Fisheries Commission for 1997* (Dartmouth, NS: NAFO, 1998) 277, para. 3.11 at 282. During the General Council meeting, it was also agreed that the same working group should study the issue of chartering of fishing vessels (NAFO, *Report of the 19th Annual Meeting of the General Council*, 15-19 September 1997, St. John's, Newfoundland, Canada (GC Doc. 97/9), in NAFO, *Meeting Proceedings of the General Council and Fisheries Commission for 1997*, *ibid*, 205, at 212-213).

²⁸⁷ NAFO, *Report of the 19th Annual Meeting of the Fisheries Commission*, *ibid*.

²⁸⁸ NAFO, *Resolution 1/99* to guide expectations of future new members with regard to fishing opportunities in the NAFO Regulatory Area (GC Doc. 99/8), online: NAFO <<http://www.nafo.org>> [hereafter NAFO Resolution 1/99]. The content of the resolution will be analyzed in the next chapter.

²⁸⁹ NAFO, *Report of the Fisheries Commission 22nd Annual Meeting*, 18-22 September 2000, Boston, Massachusetts, USA, (FC Doc. 00/21), in NAFO, *Meeting Proceedings of the General Council and Fisheries Commission for 2000* (Dartmouth, NS: NAFO, 2000) 279, para. 3.14 at 282. USA, Canada, France and Korea, however, were in favor of the continuation of the working group (*ibid*).

agreement, the working group reconvened its work on March 26 to 27, 2003. During this - their last - meeting, the group adopted document Working Paper 03/3 Draft Guidelines for future allocation of fishing opportunities not currently allocated. However, agreement could not be reached on two aspects of the document. One was the very fundamental issue of the scope of the guidelines. While USA insisted on making it applicable to all NAFO stocks, most delegations rejected that possibility and maintained that these criteria would be applicable only to allocation decisions for NAFO fish stocks not yet under a national quota regime. The other disagreement related to the mention of UNFSA, which was rejected by Latvia and Lithuania.

The working group agreed to submit the guidelines as an annex to the report of the Fisheries Commission, but since consensus could not be reached on some aspects of its substance, not to make specific recommendation on adoption of guidelines to the Commission. The Fisheries Commission, in turn, simply adopted the Report of the working group. With this, the work on allocation criteria was concluded.

There have been three opportunities for the application of the draft guidelines to the allocation of previously unregulated fisheries: thorny skate in division 3LNO, white hake in division 3NO and redfish in Division 3O. In none of these cases were the draft guidelines mentioned. The respective TACs were allocated “based on standard allocation criteria”, which were identified as coastal State status, percent biomass inside and outside Canada’s 200 mile EEZ, coastal community dependence, contribution to science and enforcement, and catch history.²⁹⁰ No further details on how these criteria were applied to each stock were included in the reports.

USA made a further attempt to advance a reform on the allocation criteria during the NAFO reform process. During the 27th meeting of the General Council, NAFO adopted the decision to undertake a revision of the NAFO Convention.²⁹¹ For this purpose, it established an ad hoc Working Group on NAFO Reform to review and, where

²⁹⁰See: NAFO, *Report of the Fisheries Commission 26th Annual Meeting*, 13-17 September 2004, Dartmouth, Nova Scotia, Canada (FC Doc. 04/17), particularly: Annex 13, Proposal by Canada for 3O Redfish (FC Working Paper 04/18, Revised – now FC Doc. 04/15); Annex 14, Proposal by Canada for 3LNO Skates (FC Working Paper 04/17 – now FC Doc. 04/14); and Annex 16, Proposal by Canada for 3NO White Hake (FC Working Paper 04/19, Revised – now FC Doc. 04/16), online: NAFO <<http://www.nafo.org>>.

²⁹¹ NAFO, *Report of the General Council Meeting 27th Annual Meeting*, September 19-23, 2005, Tallinn, Estonia (GC Doc. 05/4), online: NAFO <<http://www.nafo.org>>.

appropriate, develop recommendations to modify and/or complete the provisions of the NAFO Convention. The ad-hoc working group met in Montreal, 25-28 April 2006, and in Lunenburg, 12-17 September 2006. Additionally, a technical editing working group met in Brussels, 22 and 23 May 2007.

During this process, the USA expressed its concern that “inequities remain in the draft revised NAFO Convention text relative to both the NAFO dues assessment procedure and the NAFO allocation practice.”²⁹² To address these inequities, the USA submitted proposals to modify article VI paragraph 7 of the Convention,²⁹³ as well as the provisions on contribution to the budget.²⁹⁴ The proposed amendment to article VI aimed at recognizing explicitly that “proposals for the allocation of fishing opportunities shall be applied in a fair and equitable manner with the goal of ensuring opportunities for all qualifying Contracting Parties”.²⁹⁵ It also included, among the criteria for allocation of fishing opportunities, “the contribution of the Contracting Parties to the Commission and to the conservation and management of the stock, including the provision of accurate data

²⁹² Opening statement by the Representative of U.S. during the 29th Annual Meeting of the General Assembly, Lisbon, Portugal, 24-28 September, 2007 (NAFO, *Report of the of the General Council 29th Annual Meeting*, 24-28 September 2007, Lisbon, Portugal (GC Doc. 07/5), Annex 7 at 24, online: NAFO <<http://www.nafo.org>>).

²⁹³ Article VI paragraph 7 of the NAFO Convention reads: “Proposals adopted by the Commission for the allocation of fishing opportunities in the Regulatory Area shall take into account the interests of Contracting Parties whose vessels have traditionally fished within that Area, and, in the allocation of fishing opportunities from the Grand Bank and Flemish Cap, the Commission shall give special consideration to the Contracting Party whose coastal communities are primarily dependent on fishing for stocks related to these fishing banks and which has undertaken extensive efforts to ensure the conservation of such stocks through international action, in particular, by providing surveillance and inspection of international fisheries on these banks under an international scheme of joint enforcement.” In its opening statement at the first meeting of the working group, USA stated, in relation to the principles that should be addressed by the group: “It should come to no surprise that the first of these principles is that Contracting Parties should be treated fairly in terms of the costs and benefits of membership in NAFO. This is not just an issue of comparing assessed dues and other less tangible contributions to allocations (although these are certainly considerations that should be addressed).” (NAFO, *Report of the Working Group on the Reform of NAFO* (GC Doc. 06/1), *supra* note 238, Annex 4 at 202). Iceland and Denmark (in respect of Faroe Islands and Greenland) and France (in respect of St. Pierre et Miquelon) also sought an amendment to this provision, to use “Contracting Parties” (plural) instead of “Contracting Party”. Canada opposed (NAFO, *ibid*, at 192).

²⁹⁴ USA presented two amendments to article XVI regarding contributions to the budget (NAFO, *ibid*, Annex 13 at 211, and NAFO, *Report of the of the Working Group on the Reform of NAFO*, 12-15 September 2006, Lunenburg, Nova Scotia, Canada (GC Doc. 06/3), Annex 12 at 75, online: NAFO <<http://www.nafo.int>>). The USA proposals were not adopted, but the budget contribution scheme was slightly modified, keeping the current contribution formula on the basis of a revised species list and a 15% limit for members with small populations (NAFO, *Report of the Intersessional Meeting of the General Council*, 19-20 April 2007, Montreal, Canada (GC Doc. 07/1) at 5, online: NAFO <<http://www.nafo.int>>).

²⁹⁵ NAFO, *Report of the Intersessional Meeting of the General Council*, *ibid*, Annex 6 at 40.

and their contribution to the conduct of scientific research in the convention area.”²⁹⁶ None of these proposals was included among the amendments to the NAFO Convention officially adopted at the General Assembly 29th Annual Meeting held in Lisbon, Portugal, between the 24 and the 28 of September, 2007. The revision of allocation criteria again failed in NAFO.

The Revision of the Allocation Framework in ICCAT

Perhaps the most significant developments with respect to allocation practices have taken place in ICCAT. The trigger, in this case, has been the powerful combination of coastal States being developing States. They emphasized the lack of recognition of both their sovereign rights in their exclusive economic zones, and their urgent needs and development aspirations. Their dissatisfaction led to an “allocation crisis” and this, in turn, led to “the search for a new allocation scheme within ICCAT”.²⁹⁷

The trigger for this process was the difficult negotiation on a sharing agreement for South Atlantic swordfish. “First warning of the need for a TAC for South Atlantic swordfish were sounded in 1996, but agreement could not be reached on allocations at that meeting, largely as a result of the insistence by Brazil that the new criteria listed in the UN Fish Stocks Agreement replaced past performance as the basis for developing a sharing agreement.”²⁹⁸ An inter-sessional meeting of Panel 4 was hosted in Brazil in 1997. Negotiations again proved difficult, and agreement could be reached only on a closed session by heads of delegations.²⁹⁹ Despite this agreement, developing States remained unsatisfied. Some parties argued they were not present in the meeting; some that the allocation scheme was unfair. As a consequence of the unsatisfactory results, in 1998 Brazil, on behalf of several developing countries, succeeded in the initiative of establishing a working group to analyze the allocation criteria generally, and not with respect to a particular stock. The working group on allocation criteria met four times

²⁹⁶ *Ibid.*

²⁹⁷ Butterworth and Penney, *supra* note 15, at 170.

²⁹⁸ *Ibid.*, at 172.

²⁹⁹ ICCAT, *Report for biennial period, 1996-1997, Part II* (1997), *supra* note 230, Annex 10, Appendix 9, Report of the Informal Inter-Sessional Meeting of Panel 4, Joao Pessoa, Brazil, 15 and 16 July 1997, para. 5.14 and 5.15 at 187, online: ICCAT <<http://www.iccat.int>>. See also: Butterworth and Penney, *ibid.*, at 173.

between 1998 and 2001. In 2001, they finished their work with the adoption of the non-binding Resolution 2001-15 on Allocation criteria for fishing possibilities.³⁰⁰

As in the case of NAFO, a major discussion concerned the scope of application of the criteria. While some States (in particular developed DWFNs) wanted to limit the scope of application of the criteria to the stocks not currently allocated, others (mostly developing coastal States) expected the criteria to be applicable to all stocks, when allocated by ICCAT. Contrary to NAFO, the latter interpretation prevailed.³⁰¹ The developed States succeeded in balancing the broader scope of application of the criteria by adding a paragraph stating that the allocation criteria should be applied to all stocks in a gradual manner, over a period of time to be determined by the relevant panels, in order to address the economic needs of all parties concerned, including the need to minimize economic dislocation.³⁰²

The guidelines were received with great hope by the developing States, which qualify this as a breakthrough moment in the life of ICCAT. It was considered that the criteria adopted were in line with current international law, and in particular the LOSC and other relevant international fisheries agreements. The fact that it respected the rights and interests of coastal States in their exclusive economic zone was highlighted by many contracting parties. Indeed, some coastal States that were, at the time, observers to ICCAT decided to join the organization mainly because the new criteria ensured the recognition of the right to develop a fishery in their fishing zones.³⁰³

The practical implementation of the criteria proved those hopes to be excessively optimistic. The same year that the criteria were adopted, the Eastern and Mediterranean bluefin tuna and the Southern swordfish negotiations failed over the allocation issue.

³⁰⁰ ICCAT, *Resolution 01-25 on Criteria for the Allocation of Fishing Possibilities*, online: ICCAT <<http://www.iccat.int>> [hereafter ICCAT, Resolution 01-25].

³⁰¹ ICCAT Resolution 01-25, *ibid*, Paragraph II.

³⁰² ICCAT Resolution 01-25, *ibid*, Paragraph IV(21).

³⁰³ See: Statement of Denmark (in respect to Faroe Islands) to the Opening Plenary Session of ICCAT 17th Regular Meeting, annex 4 of the Proceedings of the 17th Regular Meeting of the ICCAT Commission held in Murcia, Spain, 12-19 November 2001, in ICCAT, *Report for biennial period, 2000-2001, Part II* (2001) English version (Madrid, Spain, 2002) 82, at 97-98, online: ICCAT <<http://www.iccat.int>>; Statement of Iceland to the Opening Plenary Session of the 13th Special Meeting of ICCAT, annex 4 of the Proceedings of the 13th Special Meeting of ICCAT held in Bilbao, Spain, October 28 – November 4 2002, in ICCAT, *Report for biennial period, 2002-2003, Part I* (2002) English version (Madrid, Spain, 2003) 70, at 74-75, online: ICCAT <<http://www.iccat.int>>. Iceland deposited its instrument of adherence to the ICCAT Convention on October 30, 2002 (ICCAT, *ibid*, at 15).

Some States estimated that the new criteria were not applied; others that they were misunderstood. For the first time, ICCAT failed to even roll over the previous management measures, and thus they were left without a TAC or sharing arrangement.³⁰⁴ In the case of East bluefin tuna and Southern swordfish, agreement was finally reached in 2002. In the case of bigeye tuna, agreement was reached in 2004. These agreements have been attributed to “a slow acceptance of the merits (and perhaps inevitability?) of opposing arguments, and a resultant gradual compromise.”³⁰⁵ It is probably also true that agreement was possible because the TAC was consistently set above the scientifically recommended level, in order to accommodate new aspirations without reducing the share of traditional fishing States. In any event, the allocation issue in ICCAT has not been completely settled: dissatisfaction with current allocation agreements by contracting parties are common and, reportedly, growing.³⁰⁶

Allocation Criteria in Other RFMOs

The developments within NAFO and ICCAT are marked to a great extent to the need to supplement the provisions of the Conventions which established these organizations. RFMO Conventions adopted after UNFSA had the advantage of these previous experiences and the inspiration of this global agreement. For this reason, they generally recognized TAC and allocation of national quotas as important conservation and management measures; and furthermore, they explicitly consider a list of criteria guiding allocation decisions. That has been the case with WCFPC, SEAFO, CCSBT,³⁰⁷ and the recently signed SPRFMO Convention text (not yet in force).³⁰⁸

The criteria of the RFMO Conventions apply to allocation of fishing opportunities to both contracting parties and new participants. In general, they follow closely the provisions of UNFSA and in particular article 11 on new entrants (including the case of

³⁰⁴ Butterworth and Penney, *supra* note 15, at 174.

³⁰⁵ *Ibid.*, at 175.

³⁰⁶ ICCAT, Performance Review Report, *supra* note 81, at paragraph 4.

³⁰⁷ CCSBT Convention was signed in May 1993 and entered into force on 20 May 1994, and thus, before UNFSA was concluded. However, it was negotiated at the same time and thus was influenced by it. For this reason, it has been included as a post-UNFSA Convention.

³⁰⁸ See: WCPFC Convention, *supra* note 24, article 10(3); SEAFO Convention, *supra* note 94, article 20(1); CCSBT Convention, *supra* note 89, article 8(4); NAFO Convention, *supra* note 92, article VI(12).

SEAFO that has jurisdiction over straddling and discrete stocks).³⁰⁹ Some organizations have included certain modifications or added criteria that reflect the specific characteristics of the regions or stocks involved.³¹⁰

In addition to the provisions of their Convention texts, some organizations have developed additional guidelines for allocation of fishing opportunities. That is the case of CCSBT. Two other organizations – WCPFC and IOTC - have at least started a process to develop detailed allocation criteria.

CCSBT adopted, in 1994, a Memorandum of Understanding (MoU) for allocation of fishing opportunities among the three original contracting parties.³¹¹ The MoU was not applied until 2010. In addition, the CCSBT is discussing the adoption of a Strategic Plan that includes, among other actions, the implementation of existing decisions that impact upon member allocations and the development of options for the long-term allocation arrangements of all members, including new members, and apply to TAC increases and decreases.³¹²

WCPFC, in turn, agreed during its second meeting to initiate a process to develop a framework for the implementation of the allocation provisions in article 10(3) of the Convention. For this purpose, it tasked the Executive Secretary with producing a discussion paper on the issue of allocation.³¹³ However, the work was later suspended.³¹⁴

Finally, the IOTC, during its last session in March 2010, adopted Resolution 10/01 for the conservation and management of tropical tuna stocks in the IOTC area of

³⁰⁹ Indeed, it has been noted that “as the participation in the Fish Stocks Agreement becomes more universal, states co-operating in RFMOs may feel compelled to treat the list of article 11 as a minimum” (Molenaar, “Participation”, *supra* note 16, at 472).

³¹⁰ See, for example: WCPFC Convention, article 10(3) subparagraphs h) and i).

³¹¹ Japan, Australia and New Zealand.

³¹² CCSBT, *Report of the Sixteenth Annual Meeting of the Commission*, 20-23 October 2009, Jeju Island, Republic of Korea, Appendix 3, Report of the Extended Commission of the Sixteenth Annual Meeting of the Commission 20-23 October 2009, Jeju Island, Republic of Korea, Attachment 16, online: CCSBT <<http://www.ccsbt.org>>.

³¹³ WCPFC, *Summary Report of the 2nd Regular Meeting of the Commission*, Pohnpei, Federated States of Micronesia, 12-16 December 2005, para. 39 at 6, online: WCPFC <<http://www.wcpfc.int>>. The discussion paper produced was Agnew *et al.*, *supra* note 10.

³¹⁴ WCPFC, *Summary Report of the 4th Regular Meeting of the Commission*, Guam, 2-7 December 2007, para. 331 at 45, online: WCPFC <<http://www.wcpfc.int>>; WCPFC, *Summary Report of the 5th Regular Meeting of the Commission*, Busan, Korea, 8-12 December 2008, para.71-73, at 11, online: WCPFC <<http://www.wcpfc.int>>.

competence.³¹⁵ According to this resolution, the Commission “shall adopt an allocation quota system or any other relevant measure for the yellowfin and bigeye tunas at its plenary session in 2012.”³¹⁶ For this purpose, it was agreed that a technical committee should be held prior to the Commission Plenary session in 2011 to discuss allocation criteria for the management of the tuna resources of the Indian Ocean and recommend an allocation quota system or any other relevant measures.³¹⁷

Section 6. Concluding Remarks

This chapter reviewed the evolution of the allocation of TAC in RFMOs from its first implementation at the international level to the current legal framework and practices. In this section, some aspects of this evolution will be highlighted.

A first important observation is that TAC and allocation has become an important, even fundamental, conservation and management measure. The LOSC recognizes TAC explicitly as a management measure to be adopted in the high seas. UNFSA not only considers the determination of a TAC, but also its allocation among participating states, as a matter of responsibility for RFMOs. Most RFMOs, including pre-UNFSA RFMOs with amended Convention texts, also identify the management measure explicitly in their mandates and functions.

TAC and allocation were recommended as best (available) management tool considering two aspects of fisheries management: biological and economic considerations. TACs were necessary to limit an increasing fishing mortality that threatens to overexploit fisheries; allocation of national quotas was necessary to eliminate competition (Olympic race) that results in economic waste in a scenario of interdependence.

The early studies made it clear, however, that allocation of national quotas did not in itself produce economic efficiency. It just provided the appropriate incentives for States to pursue economic efficiency in their national fishing policies. Therefore, the achievement of economic efficiency was dependent upon the national implementation of

³¹⁵ IOTC, *Resolution 10/01 for the conservation and management of tropical tuna stocks in the IOTC area of competence*, included in Annex VIII of IOTC, *Report of the 14th Session of the Indian Ocean Tuna Commission*, Busan, Korea, 1-5 March 2010, IOTC-2010-S14-R[E], online: IOTC <<http://www.iotc.org>>.

³¹⁶ *Ibid*, para. 13.

³¹⁷ *Ibid*, para. 12.

the quotas by the participating States. The determination of the national policies was, however, a matter of State sovereignty and outside the scope of international management. Thus, the establishment of national quotas protected and actually reinforced State sovereignty, creating “boxes” of exclusive jurisdiction in an otherwise common resource. Thus, the role of international fisheries management was reduced to “dividing the pie.” National fisheries policies for the exploitation and use of fisheries resources remained under the veil of State sovereignty, without even a relationship at the level of communication with the international regime.

As a consequence of the emphasis on biology and economics of the fisheries management paradigm, social objectives other than conservation and efficiency, and distributional consequences of the quota system – i.e. equity considerations - were not at the center of the discussion leading to the recognition of TACs and allocation as best available management practices. The Report of a FAO Study Group on Economic Aspects of Fisheries Management clearly stated

These remarks apply, however, only to the efficiency effects of regulatory actions. These actions may also have distributions effects (...) [I]t must be acknowledge, without reservations, that economic analysis as such can provide no basis for distribution decisions of this type. It can only clarify the alternatives, and thus improve the essentially political decision-making that must be involved.³¹⁸

The economist John Crutchfield, one of the main proponents of a national quota system for international fisheries, provides a quote that summarizes the lack of attention to equity concerns. In one of the early conferences held to discuss the quota system, and while addressing the issue of new entrants, he asked “but who is to define equity, and who is to establish criteria for eligibility?”³¹⁹ The question posed by Crutchfield is at the heart of the search for a regulatory framework for TAC and allocations.

It is necessary to point out that some distributional aspects were included in the work of some RFMOs in the early implementation of TAC and allocation. In particular, ICNAF and, to a lesser extent, NEAFC, engaged in analysis to determine appropriate frameworks for the allocation of quotas. Those frameworks considered the “special needs” or “special circumstances” of coastal States, coastal communities, the case of

³¹⁸ FAO, *A Note on Economic Aspects of Fishery Management*, *supra* note 135, at 2.

³¹⁹ Crutchfield, *supra* note 154, at 272.

fishing fleets with less diversion possibilities, and new entrants. Nevertheless, it was the criteria of historical catches which had preeminence in these theoretical frameworks for allocation, and which has also had preeminence in the practical implementation of management measures. Allocations followed, and still follow, mainly the criterion of historical catches.

Another aspect of the process that needs to be highlighted relates to the allocation practices after the establishment of EEZs. This aspect is particularly important because it is an unresolved conflict between coastal States and DWFNs. The consequences of the extension of fisheries jurisdiction for allocation issues were dealt with mostly by individual organizations in a way that better suited their particular reality and power distribution. There was, therefore, no generally-held view on how coastal State and DWFNs should address, either procedurally or substantially, the distribution of fishing opportunities for straddling and highly migratory stocks.

Another important observation relates to the procedure for the adoption of TACs and allocations. In every case in ICNAF, NEAFC and ICCAT, discussions for allocation took place in closed meetings, with no records of deliberations, and often a limited number of participants. Indeed, this was considered the “most effective way” to move forward the allocation agenda. Allocation negotiations relegated transparency to the perceived benefits of political compromise.

The distributional implications of allocation have remained mostly unaddressed and even understated. After some progress was made by including some provisions with allocation implications in UNFSA, the global fora has limited itself to recommending to RFMOs the development of “transparent” allocation criteria “in accordance with international law.” While referring to this perceived need, references to equity have been consistently deleted from the international documents.

RFMOs have made some progress in the development of a framework for allocation. In particular, ICCAT has developed non-binding guidelines, and most post-UNFSA RFMOs include allocation criteria in their Convention texts. However, and as the next chapter will attempt to demonstrate, progress has been insufficient. Crutchfield’s question remains without a clear answer; an answer is, however, badly needed. It seems apparent that the international community and the RFMOs are still in search of a

substantive framework to resolve the conflicts arising from allocations of scarce fisheries resources.

Chapter 3. TAC and Allocation: Legal Analysis

The previous chapter has analyzed the evolution of the TAC since its inception in the early 1970s to this day. It has been mentioned that the global legal framework, and in particular the LOSC and UNFSA, provide some insights on allocation issues but fail to solve the allocation problem. It has been also explained that the development of an allocation framework is widely considered to be the responsibility of RFMOs, and that, although RFMOs have made some progress, frameworks are still incomplete.

This chapter describes and analyzes the substantive framework in more detail. Procedural aspects will be dealt with in chapter 6. The first section of this chapter will address general aspects of the global legal framework. The second section will address a more detailed analysis of the legal provisions in relation to some of the main conflicts of rights, interests and aspirations in high seas fisheries: the coastal State – DWFN conflict; the new entrant problem; and the special needs of developing States. The third section will analyze the additions that have been made to this framework by regional instruments. Finally, the fourth section will identify the main types of allocation agreements that have been adopted in the practice of RFMOs.

Section 1. Global Framework for Allocation: Some General Aspects

The analysis of the legal framework for allocation of fishing opportunities considers global and regional instruments, which in turn can be binding or non-binding. The binding legal framework is established, at the global level, in the LOSC and UNFSA. Non-binding instruments addressing allocation of fishing opportunities in high seas fisheries do not provide much help. As described in the previous chapter, resolutions, recommendations and declarations at the global fora call for the development of transparent criteria for allocation, but do not elaborate on how to achieve this task. Only one instrument can be considered to provide some substantive guidance to the process: the Johannesburg Plan of Implementation. This instrument encourages RFMOs to give “due consideration” to the rights, duties and interests of coastal States and the special

requirements of developing States when addressing the issue of the allocation of straddling and highly migratory fish stocks.³²⁰

At the regional level, the framework for allocation is contained in RFMO Convention texts, as well as in binding and non-binding documents of general application – decision, guidelines, and recommendations. In some cases, elements of an allocation framework can be found in specific recommendations adopted for particular stocks.

Regional frameworks for allocation should be consistent with international law, particularly LOSC and UNFSA. In assessing this consistency, however, two considerations should be kept in mind. The first of these considerations relates to the ratification status of LOSC and UNFSA. Not all States have ratified those international treaties. In the case of the LOSC, this consideration is not so important because it has been widely ratified and many of its provisions are considered customary international law.³²¹ That is, however, not the case with UNFSA. A table with the status of ratification for both LOSC and UNFSA by States participating in one or more RFMOs is provided in the Appendix.

It should be mentioned, however, that in recent years, the ratification and accession rate of UNFSA has increased considerably.³²² In addition, the general acceptance of its main provisions has been expressed in several UN General Assembly (UNGA) resolutions adopted without a vote or by consensus, as well as in other international declarations and resolutions.³²³ Furthermore, some of the obligations

³²⁰ Johannesburg Plan of Implementation, *supra* note 266, para. 31(e).

³²¹ According to the official information contained in the website of the UN, 160 States had ratified or acceded to the LOSC by 1 March 2010 (online: DOALOS, <<http://www.un.org/Depts/los/index.htm>>).

³²² According to the official information contained in the website of the UN, 77 States had ratified or acceded to UNFSA by 1 March 2010 (online: DOALOS, <www.un.org/Depts/los/index.htm>).

³²³ It is worth noting that the UNGA adopts every year a resolution entitled “Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments.” The very title of the UNGA resolutions recognizes the general acceptance of the UNFSA as a means to achieve sustainable fisheries. The text of the resolutions call upon all States and fishing entities “that have not done so to ratify or accede to the Agreement and in the interim to consider applying it provisionally” (see, for example: UNGA Resolution 64/72, Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments, online: DOALOS <www.un.org/Depts/los/index.htm>, paragraph 19 at 8). The acceptance of the UNFSA by the international community can be tracked to 1995 and the Resolution 50/24, followed by the Resolutions 51/35 adopted in 1996, 52/28 adopted in 1997-1998, 54/32 adopted in 1999, 56/13 adopted in 2001, and 57/143 adopted in 2002. In 2003, the GA started adopting two resolutions on oceans issues.

included in UNFSA (and in particular those that ratify and give more precise content to the obligations of the LOSC) may be considered part of customary international law.³²⁴ Furthermore, the practice of States in the RFMOs, including both parties and non-parties to UNFSA, follow closely the provisions and guidelines of this international agreement. Based on these considerations, it can be argued that the main corpus of UNFSA has been accepted by States as governing their relations with respect to high seas fishing cooperation.³²⁵ Nevertheless, the membership of UNFSA has to be kept in mind while analyzing the global legal framework in particular situations.

A further aspect of UNFSA that needs to be taken into account while assessing consistency of regional frameworks with international law is its scope. UNFSA governs the high seas conservation and management of two particular types of stocks - straddling stocks and highly migratory stocks. There are, however, other high seas stocks that do not fall into those categories: discrete stocks. It has been recently suggested that most of the principles of UNFSA can be applied, *mutatis mutandis*, to discrete stocks.³²⁶ This proposal has been generally accepted and no objection has been raised. However, international management of discrete stocks is very recent and still scarce.³²⁷ Indeed, only

One is entitled Oceans and the Law of the Sea, the second as indicated before. That practice has been maintained to present day. All resolutions have been adopted by consensus, or without a vote. It is worth mentioning that each of these resolutions calls upon States and fishing entities to ratify or accede to UNFSA, or to take measures to implement the agreement.

³²⁴ The most evident example is the application of the precautionary approach, explicitly included in article 6 of UNFSA. Its wide acceptance is reflected not only in UNFSA provisions, but also RFMO Conventions, FAO Code of Conduct, UNGA resolutions, and other instruments. The resolutions cited in *ibid* refer to precautionary approach explicitly (see, for example: UNGA Resolution 64/72, *ibid*, paragraph 6 and 8, at 6).

³²⁵ That is probably not the case with provisions that have been more controversial and rejected by some States in international fora. That may be the case, for example, of the provisions of high seas control and enforcement of articles 21 and 22.

³²⁶ See, for example: UN, *Report of the Review Conference on the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982*, *supra* note 278, para. 64 and 65 at 14; and its Annex "Outcome of the Review Conference", para. 2 at 31, and para. 16 at 33. An obvious exception is the provision of compatibility of management measures established in article 7 of UNFSA.

³²⁷ Maguire *et al.* note that "on the high seas, management of deep-water fisheries has lagged behind the development of the fisheries, even where there are Regional Fisheries Bodies with a purview over the species" (Maguire *et al.*, *supra* note 42, at 50). It is also noted that ICES only provided scientific advice for the management of deep-water resources to NEAFC in 2005 (*ibid*). It should be noted that, in accordance with UNGA Resolution 59/25 on Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments, 17 January 2005, para. 66 to 69, online: DOALOS <<http://www.un.org/Depts/los/index.htm>> ; and UNGA Resolution A/RES/61/105, *supra* note 274, para. 83

few discrete stocks have been managed internationally.³²⁸ Due to the lack of State practice, it is probably early to allow an application of those principles to discrete stocks based on customary international law.

The third aspect that needs to be taken into account, while assessing the consistency between international (global) and regional frameworks, is that the provisions of the LOSC and UNFSA are general in character. As discussed in the previous chapter, they are the result of difficult compromises. As a consequence, they often lack clarity, precision and operational details. Different interpretations are often supported by the same texts. This aspect of the framework will be addressed in more detail in the next section.

The LOSC addresses the high seas in Part VII, articles 86 and following. It addresses in particular the conservation of living resources in Part VII Section 2, articles 116 and following. In addition, articles 63 and 64 contain some regulation for straddling stocks and highly migratory stocks. These provisions set the fundamental pillars on which high seas fisheries law is founded. Those pillars are: the freedom of the high seas, including a qualified freedom to fish,³²⁹ the primary jurisdiction of the flag State over the vessels flying their flags in the high seas,³³⁰ the obligation to conserve the natural

to 90, several RFMOs have adopted a moratoria on deep-sea fishing activities in new fishing grounds, usually joined by requirements to develop appropriate conservation and management measures before expanding fishing activities (see, for example: SPRFMO, Interim Management Measures adopted at the 3rd meeting of the International Consultations on the proposed South Pacific Regional Fisheries Management Organization, held in Reñaca, Chile, on May 4 2007, online: SPRFMO <<http://www.southpacificrfmo.org>>; NAFO, Conservation and Enforcement Measures 2010, *supra* note 236, Chapter I *bis*). Other RFMOs have closed specific areas (NEAFC, *Recommendation on the protection of Vulnerable Marine Ecosystems from significant adverse impacts in the NEAFC regulatory area*, online: NEAFC <<http://www.neafc.org>>). This can be considered as a preliminary measure for active management.

³²⁸ The most important international agreement for management of discrete stocks is probably the Arrangement between the Government of Australia and the Government of New Zealand for the Conservation and Management of Orange roughy on the South Tasman Rise, signed for New Zealand on 17 February 2000 and for Australia on 25 February 2000, in effect on 1 March 2000, on (2001)16 Int'l J. Mar. & Coast. L. 119. NEAFC has adopted specific management measures that go beyond moratoria and closed areas for Orange roughy and other deep sea species in 2010 (Recommendation IX: 2010 on Management Measures for Orange roughy in 2010 & 2011, and Recommendation VI: 2010 on Conservation and Management Measures for deep-sea species in the NEAFC Regulatory Area 2010 to 2012, both online: NEAFC <<http://www.neafc.org>>).

³²⁹ LOSC, article 87, and in particular paragraph 1 subparagraph (e). It is worth noting that the freedom to fish is subject to the conditions set in section 2 of Part VII. Furthermore, paragraph 2 of article 87 states: "These freedoms shall be exercised by all States with due regard for "the interests of other States in their exercise of the freedom of the high seas, and also with due regard for the rights under this Convention with respect to activities in the Area."

³³⁰ LOSC, article 92.

resources of the ocean,³³¹ the obligation to cooperate with other States in that conservation,³³² and the obligation not to discriminate against any States in the adoption of conservation measures.³³³ In addition, the LOSC introduced the obligation to protect the marine environment.³³⁴

The multinational character of fisheries in the high seas makes the cooperation obligation pivotal for fisheries management. In relation to high seas fish stocks, in general, the obligation to cooperate is included in article 118: “States whose nationals exploit identical living resources, or different living resources in the same area, shall enter into negotiations with a view to taking the measures necessary for the conservation of the living resources concerned.” With respect to straddling and highly migratory stocks in particular, the LOSC call upon “coastal State and the States fishing for such stocks in the adjacent area shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary for the conservation of these stocks in the adjacent area”.³³⁵ In the case of highly migratory stocks, the objective of that cooperation is not only conservation of the fish stocks, but also “promoting the objective of optimum utilization of such species throughout the region, both within and beyond the exclusive economic zone”.³³⁶ UNFSA, in turn, establishes as an objective of its provisions “the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks.”³³⁷

The obligation to cooperate is best achieved, or at least is thought to be best achieved, through RFMOs. They are considered the “institutionalization” of the obligation to cooperate. LOSC promotes their establishment by stating that States “shall, as appropriate, cooperate to establish subregional or regional fisheries organizations to this end.”³³⁸ UNFSA, in turn, not only promotes their establishment³³⁹ but also calls for

³³¹ LOSC, article 63, 64 and 117.

³³² LOSC, article 63, 64, 117 and 118.

³³³ LOSC, article 119(3).

³³⁴ LOSC, Part XII.

³³⁵ LOSC, article 63(2).

³³⁶ LOSC, article 64.

³³⁷ UNFSA, article 2.

³³⁸ LOSC, article 118.

³³⁹ UNFSA, article 8.

strengthening existing organizations in order to improve their effectiveness in establishing and implementing appropriate conservation and management measures.³⁴⁰

The obligation to cooperate for the conservation of high seas stocks has as a goal the establishment of conservation and management measures. Thus, these conservation and management measures have to be established by agreement of participating States, either directly or through the decision-making mechanism of an RFMO. This aspect needs to be highlighted because it has important consequences, in particular, for allocation of fishing opportunities: particular solutions are subject to a negotiation process among participating States using appropriate decision-making frameworks.³⁴¹

TACs are recognized explicitly as a conservation and management measure for high seas fisheries, and indeed, as a fundamental measure in fisheries management, in the LOSC. The chapeau of article 119, on conservation and management of the living resources of the high seas, reads: “in determining the allowable catch and establishing other conservation measures for the living resources in the high seas (...)”.³⁴² UNFSA, on the contrary, does not refer explicitly to TACs, but they are understood to be one of the measures that can be adopted to achieve the objective of long-term conservation and sustainable use of highly migratory and straddling stocks.³⁴³

The issue of allocation of fishing opportunities, on the contrary, is not addressed, at least not explicitly, in the LOSC. No provision of the LOSC refers to allocation or sharing agreements regarding quotas, effort, or participation, in the high seas, or for resources that straddle or migrate between areas under national jurisdiction and the high seas.³⁴⁴ However, it should be noted that in its preparatory meeting for UNFSA

³⁴⁰ UNFSA, article 13.

³⁴¹ These aspects will be addressed in chapter 6.

³⁴² The fundamental role of TACs for conservation is also recognized in the EEZs in similar terms. Article 61 of conservation of living resources (of the EEZ) establishes, as a responsibility of the coastal State, the determination of the allowable catch of the living resources in its exclusive economic zone.

³⁴³ The fact that it is considered one of the possible conservation and management measures is apparent from Article 10(b), which refers to the allocation of the allowable catch.

³⁴⁴ The only reference to sharing agreements is included in article 62 of the LOSC, addressing the obligation of coastal States to provide access to the surplus of the total allowable catch where the coastal State does not have the capacity to harvest it. The lack of specific provisions should be no surprise. The allocation “issue” during the LOSC was resolved through the establishment of an extended area of jurisdiction for the conservation and exploitation of resources (EEZ). LOSC adopted a jurisdictional and spatial approach to the allocation of natural resources. This new distribution of ocean’s wealth was believed to solve the cooperative problems faced by the international community. As a consequence, the high seas’

Conference, a group of technical experts on high-seas fisheries interpreted article 119 as providing some guidance in this respect.

Article 119 calls upon States, in determining the TAC “or other conservation measures”, to

- (a) take measures which are designed, on the best scientific evidence available to the States concerned, to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global;
- (b) take into consideration the effects on species associated with or dependent upon harvested species with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened.

It further adds, in paragraph 3, that States concerned shall ensure that conservation measures and their implementation do not discriminate in form or in fact against the fishermen of any State.

The group of experts considered that the provision of article 119 may be interpreted as applicable to allocation decisions, since they “might be regarded” as a conservation measure within the meaning of this provision.³⁴⁵ According to this interpretation, allocation decisions should be qualified by the factors listed in this provision, from which they cite in particular: environmental and economic factors, the special requirements of developing States, and fishing patterns.³⁴⁶ As an additional factor to be taken into account, not listed in article 119, the group included the enhancement efforts undertaken by a State.³⁴⁷

UNFSA does not address allocation of fishing opportunities directly either. However, the Conference could not avoid addressing distributional conflicts. The negotiation was, in itself, the result of increasing conflicts of interests in the exploitation of straddling and highly migratory fish stocks. The predominant conflict was the one between coastal States and DWFN. However, the interests and aspirations of developing

regulation was not addressed in great detail, and the LOSC limited itself to repeating the main legal provisions of customary international law.

³⁴⁵ DOALOS, *supra* note 126, at 33-34.

³⁴⁶ DOALOS, *ibid.*

³⁴⁷ DOALOS, *ibid.*

States were also present in the discussion. This was a consequence of both the general developments in international law, particularly in the field of sustainable development, and the particular genesis of the negotiation process, i.e. the 1992 Rio Conference. It has been noted that the UNFSA Conference was influenced by the recent debates in UNCED, although this influence was resisted by some States.³⁴⁸

As a result of these unavoidable conflicts, UNFSA contains several provisions with allocation consequences. These provisions address the conflict between conservation and utilization (i.e. intergenerational equity as discussed in chapter 4). They also address the main conflict between coastal States and DWFNs (in article 7); the issue of new entrants to the fishery (in article 11); and the special situation of developing States (arguably, in articles 24 and 25, and article 11). These different provisions will be addressed in more detail below. However, a few remarks in relation to the general approach taken by UNFSA are useful.

A first aspect of the framework that is important to highlight is that UNFSA does not have an overarching provision or principle regarding allocation, but rather addresses different conflicts of interests in different provisions. In other words, it provides separate guidance on compatibility of measures within and outside EEZ, on new participants, and on developing States, but does not address how a decision shall be made where all those interests co-exist at the same time and in relation to the same stock. These provisions have been considered as an “encapsulation” of the distributional conflicts by UNFSA;³⁴⁹ an encapsulation that represents a failure to address the distributional problem in its integrity.

In addressing a particular distributional problem, the different provisions of UNFSA with allocation implications require States to take into account a series of elements, criteria, factors or facts. They are reproduced in table 1.

³⁴⁸ It was noted, by observers, that the beginning of the Conference was a hybrid between UNCLOS and UNCED (IISD, Earth Negotiations Bulletin, vol. 7, summary issue 16, *supra* note 260, in “A Brief Analysis of the Conference”). It seemed that the discussion on opportunities for developing States, which was pivotal in the UNCED negotiation, was spilling over into this conference. However, this trend was contended by some delegates, who insisted that this was more a Law of the Sea issue than a sustainable development issue (IISD, Earth Negotiations Bulletin, vol. 7, summary issue 30, *supra* note 260, in “A Brief Analysis of the Conference”).

³⁴⁹ Agnew *et al.*, *supra* note 10, at 19. The quote relates to the analysis of the needs of developing States and articles 11 and 24 of UNFSA.

Table 1. Provisions with allocation implications in UNFSA

Article	Criteria
Article 7 on Compatibility of Conservation and Management Measures	<p>(a) take into account the conservation and management measures adopted and applied in accordance with article 61 of the Convention in respect of the same stocks by coastal States within areas under national jurisdiction and ensure that measures established in respect of such stocks for the high seas do not undermine the effectiveness of such measures;</p> <p>(b) take into account previously agreed measures established and applied for the high seas in accordance with the Convention in respect of the same stocks by relevant coastal States and States fishing on the high seas;</p> <p>(c) take into account previously agreed measures established and applied in accordance with the Convention in respect of the same stocks by a subregional or regional fisheries management organization or arrangement;</p> <p>(d) take into account the biological unity and other biological characteristics of the stocks and the relationships between the distribution of the stocks, the fisheries and the geographical particularities of the region concerned, including the extent to which the stocks occur and are fished in areas under national jurisdiction;</p> <p>(e) take into account the respective dependence of the coastal States and the States fishing on the high seas on the stocks concerned; and</p> <p>(f) ensure that such measures do not result in harmful impact on the living marine resources as a whole.</p>
Article 11 on New members or Participants	<p>(a) the status of the straddling fish stocks and highly migratory fish stocks and the existing level of fishing effort in the fishery;</p> <p>(b) the respective interests, fishing patterns and fishing practices of new and existing members or participants;</p> <p>(c) the respective contributions of new and existing members or participants to conservation and management of the stocks, to the collection and provision of accurate data and to the conduct of scientific research on the stocks;</p> <p>(d) the needs of coastal fishing communities which are dependent mainly on fishing for the stocks;</p> <p>(e) the needs of coastal States whose economies are overwhelmingly dependent on the exploitation of living marine resources; and</p> <p>(f) the interests of developing States from the subregion or region in whose areas of national jurisdiction the stocks also occur.</p>
Article 24 on Special Requirements of Developing States	<p>a) the vulnerability of developing States which are dependent on the exploitation of living marine resources, including for meeting the nutritional requirements of their populations or parts thereof;</p> <p>(b) the need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and women fishworkers, as well as indigenous people in developing States, particularly small island developing States; and</p> <p>(c) the need to ensure that such measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States</p>

This approach deserves four general observations. The first one is that all articles require States to “take into account” the factors included in the respective provisions. As mentioned by Molenaar with respect to article 11, “even though the chapeau uses the word ‘shall’, which thereby establishes a legal obligation, this is considerably softened by

the qualification ‘take into account’.”³⁵⁰ Indeed, the obligation to take into account may be satisfied by simply noting the factor, but not giving it any effect in the resultant distribution.

What is said in respect to article 11 applies as well to article 7 and 24. However, it should be noted that article 7 requires that more weight than a simple “consideration” be given to two particular factors. This weight is implicit in the fact that States are called upon not only to consider, but also to ensure a specific result. Articles 7(2), subparagraphs a) and f) state:

In determining compatible conservation and management measures, States shall:

(a) take into account the conservation and management measures adopted and applied in accordance with article 61 of the Convention in respect of the same stocks by coastal States within areas under national jurisdiction and *ensure* that measures established in respect of such stocks for the high seas do not undermine the effectiveness of such measures;

(f) *ensure* that such measures do not result in harmful impact on the living marine resources as a whole. (emphasis added)

The second observation relates to the character of the lists included in articles 7, 11 and 24. The elements, criteria, factors or facts are included in either closed or non-exhaustive lists. Article 7 (which addresses the conflict between coastal States and DWFNs) is a closed list, while article 11 (which addresses the fishing opportunities of new entrants) and article 24 (which addresses the special requirements of developing States) are non-exhaustive lists, as the phrases “inter alia” or “in particular” acknowledge. In the two latter cases, therefore, States have latitude not only to “take into account” a factor but decide that it should not have an impact on the distributive result, but also to consider other elements in their distributional decisions.

Another aspect that is worth noting is that the criteria in each of the lists constitute a description of the interests that are involved in the respective conflict. However, the provisions do not determine the weight that has to be given to each factor, do not prioritize them, and do not give one or more of them any preference in the distributional decision.

³⁵⁰ Molenaar, “Participation”, *supra* note 16, at 468.

The fourth observation relates to the nature of the criteria or factors included. The criteria are qualitative and general in nature. None of them can be applied to a distributional issue without further refinement of its precise content. Even the most objective criteria included in the lists – historical catches – leaves important elements to be resolved by the negotiating parties (e.g. what is the reference period? the catches made by a vessel flying the flag of a DWFN in the EEZ of a coastal State shall be considered catches of the DWFN or the coastal State? Which statistics are to be used?) This lack of specificity and operational details or parameters allows them to be interpreted subjectively with different emphasis, strength and even meaning.

From this general description, it can be concluded that the approach of the current global legal framework to the distributional conflict is to address specific conflicts of interests in separate provisions, rather than providing a unitary or harmonized framework. As a consequence, it does not contain a “fundamental norm” that acts as a benchmark for allocation.³⁵¹ The different conflicts are addressed through the obligation to take into consideration closed or open lists of qualitative criteria encompassing a broad range of interests without establishing preferences, order, priorities or weight.

These circumstances give the RFMOs (and their member States) almost absolute discretion in determining allocations. Despite the fact that they are included in a binding document, the provisions regarding allocation have very little normative value. It can be argued that LOSC and UNFSA do little more than acknowledge the competing interests in an allocation process.³⁵² There is no guidance on how to solve those conflicts of interest.

Section 2. The Conflicts of Interests and Allocation Criteria

The previous section described the general shortcomings of the legal frameworks for allocation as developed in global instruments and RFMOs frameworks. This section undertakes an in-depth analysis on how that legal framework addresses particular

³⁵¹ Molenaar, “South Tasman Rise Arrangement”, *supra* note 16, at 91; Molenaar, “Participation”, *ibid*, at 467.

³⁵² Molenaar, citing articles 56(1)(a) and (3), 77(4) and 116, notes that the LOSC “effectively does no more than confirm the respective rights of states in their different capacities” (Molenaar, “Participation”, *ibid*). As seen, the allocation criteria of UNFSA in articles 7, 11 and 24 add little more to the recognition of the interests at stake.

conflicts of rights and interests in international fisheries, with an emphasis on allocation criteria. Identifying the main conflicts of rights and interests in the sharing of fish stocks with a high seas component is not a difficult task, after having analyzed the history and evolution of TACs and allocations as conservation and management measures. Indeed, they were clearly exposed in the early studies for allocations undertaken in the 1960s. The subsequent events only confirm the accuracy of these foresights.

In those early studies, it was asserted that coastal States should be given some kind of preference due to their geographical proximity to the fishing grounds and the fact that a coastal fishing industry is less movable than a distant water fishing fleet.³⁵³ The conflict of interest between coastal States and DWFNs remained despite the extension of fishing jurisdiction. The distributional conflict that would be created by the accession of new participants to the fisheries was also recognized and highlighted as one extremely important question that needed to be faced in the design of a system of allocation of national quotas.³⁵⁴ The especial situation of developing States was also acknowledged.³⁵⁵ All those conflicts remain as valid today as in the 1960s. They will be the focus of this section.

Another important conflict is the one between providing fishing opportunities for all interested parties, and the need to limit catches for the conservation of the target stock, and its associated and dependent species. This particular conflict will be dealt in the next chapter.

There are still other technical conflicts related to the interactions between different types of fleet (i.e. a target fishery and a by-catch fishery, or fleets using different fishing gears). In the current practice, it is left mostly to individual countries to address the fleet conflicts within their national quotas. Exceptions to this general rule exist in relation to quotas set for by-catch in a particular target fishery.³⁵⁶ For this reason, despite

³⁵³ See: Alexander, "Discussion Period" *supra* note 159, at 288.

³⁵⁴ See, for example: Crutchfield, *supra* note 154, at 272; Giulio Pontecorvo, "Critique", in Alexander, *supra* note 154, at 276; "Discussion Period", *ibid*, at 279.

³⁵⁵ See, for example: Crutchfield, *ibid*, at 272.

³⁵⁶ See, for example, allocations for by-catch in: ICCAT, *Supplemental Recommendation 08-04 concerning the Western Atlantic Bluefin Tuna Rebuilding Program*, para. 6.b, and ICCAT, *Recommendation 07-03 on the Southern Albacore catch limits for 2008, 2009, 2010 and 2011*, para 6, both online: ICCAT <<http://www.iccat.int>>.

the impact they may have in allocation decisions, these issues will not be analyzed further in this thesis.

Coastal State Interests vs. DWFN Interests

The distribution of fishing opportunities between coastal States, for the portion of the stock that occurs in their EEZs, and DWFNs is a problem limited to straddling and highly migratory stocks. It is, nevertheless, the most sensitive allocation issue. This derives from the fact that straddling and highly migratory stocks account for a significant proportion of the resources caught in the high seas; and from the jurisdictional and substantive challenges of this distribution. Indeed, allocation is often framed as a conflict between coastal States and DWFNs. It is important to note, however, that although such a conflict is prominent in practice and discourse, allocation discussions exceed that frame.

The core of the high seas – EEZs distribution conflict lies in the reconciliation of two different regimes: coastal States have an exclusive right for exploration, exploitation and conservation of the living resources of their EEZs. DWFNs, in turn, have a “right to fish in the high seas”, a right that is nevertheless not exclusive but shared with other States. This reconciliation has two inter-linked aspects: jurisdictional and substantive. The jurisdictional aspect relates to the decision-making process for conservation and management measures, and in particular for the TAC, for stocks that occur in areas under different jurisdictional regime. The substantive aspect relates to the consideration given to coastal State rights in the distribution of fishing opportunities.³⁵⁷ This latter aspect is the focus of this section.

The EEZ – high seas conflict was paramount in the UNFSA negotiation process, and a very difficult problem to address. Both coastal States and DWFNs had an interest in ensuring that the rights carefully negotiated during the LOS Conference did not suffer any erosion. For that purpose, it was made clear already in the calling to the conference that the results of the conference had to be consistent with the LOSC provisions.³⁵⁸ This was, indeed, reflected in the text of UNFSA, in particular in article 4:

³⁵⁷ See: Oude Elferink, “The Determination of Compatible Conservation and Management Measures for Straddling and Highly Migratory Fish Stocks” (2001) 5 Max Planck Yearbook of United Nations Law 551, at 556 and note 8.

³⁵⁸ United Nations, *Agenda 21*, supra note 255, para. 17.50.

Nothing in this Agreement shall prejudice the rights, jurisdiction and duties of States under the Convention. This Agreement shall be interpreted and applied in the context of and in a manner consistent with the Convention.³⁵⁹

The simple recognition of the respective regimes of the EEZ and the high seas, however, did little to balance the rights and interests at stake in cases of competition and conflict. The solution of UNFSA to this problem rested on certain basic principles. One of them is the principle of biological unit: conservation and management measures adopted for a stock should be consistent over its range of distribution. This principle was accepted by both coastal States and DWFNs from the outset.

As a consequence of the principle of biological unity, it was also accepted that conservation and management measures adopted in both areas needed to be compatible and coherent. A harder problem was to find the mechanism through which to achieve compatible and coherent measures. The final solution is set out in Article 7.

Article 7 begins with an overall safeguard of respective interests: the sovereign rights of coastal States for the conservation and exploitation of resources in their EEZ, and the right to fish in the high seas. Article 7(1) reads:

Compatibility of conservation and management measures

1. Without prejudice to the sovereign rights of coastal States for the purpose of exploring and exploiting, conserving and managing the living marine resources within areas under national jurisdiction as provided for in the Convention, and the right of all States for their nationals to engage in fishing on the high seas in accordance with the Convention:

(a) with respect to straddling fish stocks, the relevant coastal States and the States whose nationals fish for such stocks in the adjacent high seas area shall seek,

³⁵⁹ In previous proposals, some States wanted to increase the influence of coastal States in the management of those stocks, while other States attempted to “introduce internationally adopted measures in the high seas into the fisheries management” of the EEZ or other measures that would, in practice, have weakened the sovereign rights of coastal States in their EEZ. The issue also tainted the discussion on the area of application of the Agreement. Article 3 of UNFSA, in this respect, states:

“1. Unless otherwise provided, this Agreement applies to the conservation and management of straddling fish stocks and highly migratory fish stocks beyond areas under national jurisdiction, except that articles 6 and 7 apply also to the conservation and management of such stocks within areas under national jurisdiction, subject to the different legal regimes that apply within areas under national jurisdiction and in areas beyond national jurisdiction as provided for in the Convention.

2. In the exercise of its sovereign rights for the purpose of exploring and exploiting, conserving and managing straddling fish stocks and highly migratory fish stocks within areas under national jurisdiction, the coastal State shall apply *mutatis mutandis* the general principles enumerated in article 5.

3. States shall give due consideration to the respective capacities of developing States to apply articles 5, 6 and 7 within areas under national jurisdiction and their need for assistance as provided for in this Agreement. To this end, Part VII applies *mutatis mutandis* in respect of areas under national jurisdiction.”

either directly or through the appropriate mechanisms for cooperation provided for in Part III, to agree upon the measures necessary for the conservation of these stocks in the adjacent high seas area;

(b) with respect to highly migratory fish stocks, the relevant coastal States and other States whose nationals fish for such stocks in the region shall cooperate, either directly or through the appropriate mechanisms for cooperation provided for in Part III, with a view to ensuring conservation and promoting the objective of optimum utilization of such stocks throughout the region, both within and beyond the areas under national jurisdiction.

This provision must be read in conjunction with articles 3 and 4. They provide safeguards that conservation and management measures are to be adopted, for each area, under their respective jurisdictional authority. However, these authorities have to cooperate so that the conservation and management measures are adopted on the basis of similar standards, so that the management strategy of the whole distribution remains stable and coherent (or, in UNFSA terms, so as to ensure “conservation and management of the straddling fish stocks and highly migratory fish stocks in their entirety”).³⁶⁰ Article 7(2) reads:

(2) Conservation and management measures established for the high seas and those adopted for areas under national jurisdiction shall be compatible in order to ensure conservation and management of the straddling fish stocks and highly migratory fish stocks in their entirety. To this end, coastal States and States fishing on the high seas have a duty to cooperate for the purpose of achieving compatible measures in respect of such stocks (...).

In discharging this obligation to cooperate so as to achieve compatible management measures, they have to take into account some elements, which are listed in paragraph 2 of article 7:

2. (...) In determining compatible conservation and management measures, States shall:

³⁶⁰ UNFSA, article 7(2). See: Oude Elferink, *supra* note 357, at 562-563 and note 23. Despite this explicit recognition of the two different jurisdictional regimes of the EEZ and the high seas, most RFMOs with jurisdiction over highly migratory stocks have an area of competence that includes both these maritime zones, and adopt management decisions that are binding both within and outside the EEZ (ICCAT, CCSBT). The decisions require, evidently, the consent of the coastal States, but the establishment of the management measures is a unified process that reflects the obligation to cooperate to establish compatible conservation and management measures (and without prejudice of sovereign rights of the coastal States). Even in cases where there is a jurisdictional difference reflected in the area of competence, most RFMOs seem to have adopted a practical approach that allows the adoption of one TAC allocated to participating States, including the coastal State in that character and, if applicable, as a high seas fishing State. This practical approach has been made explicit in the SPRFMO Convention, *supra* note 23, article 20(4) and Annex III.

- (a) take into account the conservation and management measures adopted and applied in accordance with article 61 of the Convention in respect of the same stocks by coastal States within areas under national jurisdiction and ensure that measures established in respect of such stocks for the high seas do not undermine the effectiveness of such measures;
- (b) take into account previously agreed measures established and applied for the high seas in accordance with the Convention in respect of the same stocks by relevant coastal States and States fishing on the high seas;
- (c) take into account previously agreed measures established and applied in accordance with the Convention in respect of the same stocks by a subregional or regional fisheries management organization or arrangement;
- (d) take into account the biological unity and other biological characteristics of the stocks and the relationships between the distribution of the stocks, the fisheries and the geographical particularities of the region concerned, including the extent to which the stocks occur and are fished in areas under national jurisdiction;
- (e) take into account the respective dependence of the coastal States and the States fishing on the high seas on the stocks concerned; and
- (f) ensure that such measures do not result in harmful impact on the living marine resources as a whole.

The criteria included in the closed list of article 7 include aspects related to stock management, biological unit and geographical distribution, fishing practices, dependence, and conservation. They shall be taken into account in the establishment of any conservation and management measures, and not only in the case of allocation decisions. As a consequence, some factors may play a limited role in allocations.³⁶¹

The biological criteria relate in particular to the relationship between the distribution of the stock, the fisheries and the geographical particularities of the region concerned. This criterion is known as “zonal attachment”. The factor of geographical distribution is particularly important, since it implies establishing which proportion of the fish stock is present in each jurisdictional area, providing an objective criterion for distribution of fishing opportunities. However, it should be noted that the criterion is less

³⁶¹ As a general rule, the management aspects included in letters a) to c) will probably not have a significant, or any, impact on allocation decisions because neither coastal States nor RFMOs would likely allocate fishing opportunities before entering into compatibility exercises with each other. However, there have been cases where coastal States have allocation arrangements before participation of distant water fishing nations have occurred (e.g. of NEAFC after the extension of EEZs). Also, cases where an RFMO allocates fishing opportunities without participation of one or more coastal States have also occurred, and resulted in difficult allocation problems (e.g. CCSBT and its relation with the non-member South Africa).

objective than might be expected. Firstly, it requires a considerable level of scientific knowledge, which is not always available. In addition, fish stocks do not have static patterns of distribution, and are influenced by both the amount of fishing and environmental factors. Furthermore, fish stocks distribute in different ocean areas at different stage of their life cycle. In cases where a relevant stages of the cycle (i.e. nursing) occurs in a specific jurisdictional area (e.g. EEZ), claims that the stock has a particular attachment to that area, and thus that that area is entitled to a more significant share, are probably going to be presented in the negotiation of a cooperative regime.³⁶² As a consequence, the decision on a model to quantify stock distribution in different areas is often subject to a negotiation process itself, a process that it is scientific in nature but strongly influenced by political considerations.³⁶³

It is also worth mentioning that the criteria of geographical distribution or zonal attachment for highly migratory stocks has been resisted in even rejected by some States, on the basis that the “the changing distribution of tuna biomass and the fact that due to the migratory character of the stocks concerned they do not belong to one zone in particular.”³⁶⁴

It is also worth mentioning that the letter of article 7 addressing the relationship between the biological distribution of the stock, the fisheries, and other geographical particularities, includes as one element the “the extent to which the stocks (...) are fished in areas under national jurisdiction”. According to this, then, not only the presence of the

³⁶² In this respect, it should be mentioned that the following biological elements have been identified as relevant for the implementation of the “zonal attachment” criterion: the spawning areas, the distribution of egg and larvae, the occurrence of juvenile fish, and the occurrence and migrations of the fishable part of the stock (Hoel and Kvalvik, *supra* note 14, at 351, citing work undertaken by ICES). The authors include as criterion the history of the fishery and the state of exploitation of the stock. They have been omitted in this list because they do not correspond to aspects of biological distribution. However, their relevance in the application of the compatibility criterion is mentioned in other sections of this analysis.

³⁶³ An example thereof was the process to determine zonal attachment for blue whiting in the North East Atlantic. See: Ingolf Røttingen, “Management of pelagic fisheries in the Norwegian Sea”, in Hein Rune Skjoldal, ed., *The Norwegian Sea Ecosystem* (Trondheim: Tapir Academic Press, 2004) 535, at 543-546.

³⁶⁴ Oude Elferink, *supra* note 357, at 556. EC stated that the “changing distribution of tuna biomass makes the ‘zonal attachment’ proposal very difficult to implement from a practical perspective (ICCAT, *Report for biennial period, 1998-99, Part II* (1999) (Madrid: ICCAT 2000), Annex 6, Report of the 1st Meeting of the ICCAT Group on Allocation Criteria, Madrid, 31 May – 2 June 1999, para. 6.47 at 90, online: ICCAT <<http://www.iccat.int>>). Japan rejected that possibility on the basis that tuna “stocks migrate freely and such a proposal has no historical precedent or merit” and that “highly migratory fish do not belong to one zone, but that those areas through which they migrate instead represent a ‘transitional route’ only” (ICCAT, *ibid.*, para. 6.44 and 6.50 at 90).

stock is relevant for this criterion, but also the existence and extent of fishing activity. Both may not coincide, and often they collide. However, by mentioning both elements in the same provision and as elements of the same criterion, UNFSA leaves the distributional problems open. As a consequence of these difficulties, different interpretations of this one criterion (“zonal attachment”) may and actually have occurred. An example thereof is the dispute that faced NEAFC contracting parties in relation to the Norwegian spring spawning herring (or Atlanto-Scandian herring). Although member States agreed that zonal attachment should be the criterion for distribution, they had different understandings on how to determine that zonal attachment. Some member States proposed to establish it in terms of biomass per time; others argued that it should be established in terms of catch only.³⁶⁵

In relation to the existence and extent of fishing activities, there is another provision that may create more interpretation problems: article 62 of LOSC. According to paragraph 2 of this provision,

[t]he coastal State shall determine its capacity to harvest the living resources of the exclusive economic zone. Where the coastal State does not have the capacity to harvest the entire allowable catch, it shall, through agreements or other arrangements and pursuant to the terms, conditions, laws and regulations referred to in paragraph 4, give other States access to the surplus of the allowable catch, having particular regard to the provisions of articles 69 and 70, especially in relation to the developing States mentioned therein.

The interactions between this provision and article 7 of UNFSA need to be assessed. Does this provision apply to cases where the resources occur only within the EEZ of a coastal State? Does the provision have any allocation consequence in relation to article 7? Or does it regulate, not allocation of fishing opportunities for straddling and highly migratory stocks, but access agreements to the EEZ? Those questions remain not only unanswered but even unaddressed.³⁶⁶

³⁶⁵ Trond Bjørndal, “Overview, roles, and performance of the North East Atlantic fisheries commission (NEAFC)” (2009) 33 *Marine Policy* 685, at 692.

³⁶⁶ The question would be, then, if in application of the criteria included in article 7, it is even possible that a coastal State will be allocated more fishing opportunities than it is capable of using? If a criterion of zonal attachment understood as biological distribution is applied, that may be the case. But if the criterion is not given sufficient weight, or if it is counterbalanced by existing fishing patterns or dependency, it may be argued that the fishing opportunities should be allocated to other States and not the coastal State. Other States still require a permission to fish in the coastal State’s EEZ, but that would not be to fish the “surplus” of the coastal State’s quota.

A further criterion that article 7 considers for establishing compatibility of measures is the dependency of both coastal States and States fishing in the high seas. It does not elaborate further on what shall be considered dependency, or how to assess it. It has been proposed that “[s]ome indication for the interpretation of the term ‘dependence’ can be found in articles 11 and 24” of UNFSA.³⁶⁷ In particular, articles 11(1) subparagraphs (d) and (e), and article 24(2) subparagraphs (a) and (b) are cited. According to this interpretation, the dependence of the coastal States and DWFNs can be established by reference to the importance of the stocks to the State concerned in relation to its national economy; and the dependence of specific groups on the stocks concerned. In the case of developing States, an additional relevant consideration is meeting the nutritional requirements of their populations or parts thereof.

The description of the different criteria that needs to be considered in the cases where coastal States’ and DWFNs’ aspirations cannot be simultaneously satisfied, demonstrates that the provision of article 7 gives little guidance on how to solve the allocation problem. Each party is able to find, in the same provision and sometimes in the same criterion, the arguments that would support their contradictory positions.

Existing Participants vs. New Entrants

A second important source of conflict is the one between existing members and new (or late) entrants. The LOSC establishes, as a pillar of high seas regime, the principle of freedom to fish in the high seas. The freedom is, however, qualified by the obligations to directly conserve high seas stocks, to cooperate with other States in their conservation and, as appropriate, cooperate to establish subregional or regional fisheries organizations to this end. The heart of the problem is to determine if the duty to cooperate implies a duty to abstain from fishing, if the fishing stock is already fully exploited. Phrasing the question in the reverse, the problem is to determine if RFMOs have an obligation to accommodate and provide access to new (or late) entrants.

UNFSA reinforces the duty of cooperation by establishing, in article 8.4, that “only those States which are members of [a regional] organization or participants in [a regional] arrangement, or which agree to apply the conservation and management

³⁶⁷ Oude Elferink, *supra* note 357, at 567.

measures established by such organization or arrangement, shall have access to the fishery resources to which those measures apply.” It adds that a State which is not a member of the organization or participant in an arrangement, and which does not otherwise agree to apply the conservation and management measures established by such organization or arrangement, is not discharged from the obligation to cooperate.³⁶⁸ Paragraph 3 adds that “such State shall not authorize vessels flying its flag to engage in fishing operations for the straddling fish stocks or highly migratory fish stocks which are subject to the conservation and management measures established by such organization or arrangement”. Therefore, participation in the work of an RFMO is a crucial aspect of allocation. In the words of Juda, “[p]articipation in the management scheme thus has been made the price of fishery access; free and unlimited access at will is ended, as access now is tied to and limited by the conditions imposed by collective action.”³⁶⁹

But at the same time, article 8(4) of UNFSA establishes that States with a real interest in the fishery have the right and the duty to cooperate with other States by becoming members of an organization or participants of an agreement; and the organization or agreement could not legally preclude their participation.³⁷⁰ What that real interest is has not been defined in the agreement, and its scope has been subject to interpretation. It is generally recognized that the relevant coastal States (i.e. coastal States whose maritime zones are included in, or adjacent to, the RFMO) and the States fishing for the stock have a real interest in the fishery. “Their real interest is implicit in their duty to participate”³⁷¹, recognized in articles 8.4 and 8.5 of UNFSA. According to Orrego, these are the only States with a real interest.³⁷² Molenaar considers that there is no well-founded argument for interpreting or applying the concept of “real interest” as a bar to participation in RFMOs *per se*.³⁷³

³⁶⁸ UNFSA, article 17(1).

³⁶⁹ Lawrence Juda, “The 1995 United Nations Agreement on Straddling Stocks and Highly Migratory Stocks: A Critique” (1997) 28 Ocean Devel. & Int’l L. 147, at 155.

³⁷⁰ UNFSA, article 8(4): “The terms of participation in such organization or arrangement shall not preclude such States from membership or participation; nor shall they be applied in a manner which discriminates against any State or group of States having a real interest in the fisheries concerned.”

³⁷¹ Erik Jaap Molenaar, “The Concept of ‘Real Interest’ and Other Aspects of Co-operation through Regional Fisheries Management Mechanisms” (2000) 15 Int’l J. Mar. & Coast. L. 475, at 495.

³⁷² Orrego Vicuña, *supra* note 126, at 208.

³⁷³ Molenaar, *supra* note 371, at 498-499. Molenaar distinguishes three categories of States different from the relevant coastal States and States actively fishing for the stock, that may be considered to have a “real

The difference of interpretation may not be as substantive if one considers not only the participation in the cooperative regime, but also the allocation of fishing opportunities, i.e., access to the stocks, for new entrants. Article 11 of UNFSA on participatory rights of new entrants contains a non-exhaustive list of criteria that shall be taken into account while determining the nature and extent of participatory rights of new members of a RFMO, or new participants to an arrangement.³⁷⁴ These criteria include:

- (a) the status of the straddling fish stocks and highly migratory fish stocks and the existing level of fishing effort in the fishery;
- (b) the respective interests, fishing patterns and fishing practices of new and existing members or participants;
- (c) the respective contributions of new and existing members or participants to conservation and management of the stocks, to the collection and provision of accurate data and to the conduct of scientific research on the stocks;
- (d) the needs of coastal fishing communities which are dependent mainly on fishing for the stocks;
- (e) the needs of coastal States whose economies are overwhelmingly dependent on the exploitation of living marine resources; and
- (f) the interests of developing States from the subregion or region in whose areas of national jurisdiction the stocks also occur.

Orrego considers that states not having a real interest in the stock can only participate in the organization as new members, and as such be allocated fishing opportunities only “to the extent possible”.³⁷⁵ Molenaar, although having a broader interpretation of the concept of real interest and thus of participatory rights in the regime, also leaves open the possibility for restricting access to the stocks to new participants in case it is necessary for conservation.³⁷⁶ In both cases, the authors seem to give priority to

interest”: flag States that fished in the regulatory area previously and want to resume fishing; flag States without a catch history that want to fish in the future; and States with no intention to fish that nevertheless want to participate in the RFMO/A (Molenaar, *ibid*, at 495-496).

³⁷⁴ Molenaar points out that, although the chapeau uses the word “shall”, thereby establishing a legal obligation to consider these criteria, this obligation is softened by the use of the expression “take into account” (Molenaar, “Participation”, *supra* note 16, at 468). It is also softened by the fact that the list is non-exhaustive, and by the fact that the article does not prioritize nor assign relative weights to the different criteria (Molenaar, *ibid*). These two circumstances give the RFMO/As considerable latitude in determining the actual participatory rights of new members.

³⁷⁵ Chairman of the UNFSA Conference, as cited by Orrego Vicuña, *supra* note 126, at 210.

³⁷⁶ Molenaar, *supra* note 371, at 499.

the first criterion listed in article 11.³⁷⁷ Other authors, based on the same article, conclude that new entrants must be offered a just and reasonable share of the TAC.³⁷⁸ However, they do not elaborate on the concept of “just and reasonable” share.

It should be noted at this point that framing the problem of new entrants as a conservation problem is misleading. It is true that the stock can support only a certain amount of fishing effort and catches and thus, when that point is reached, no additional fishing effort or catches shall be accepted. But that does not imply, necessarily, the exclusion of new entrants to a fully exploited stock. The same protection can be achieved by re-allocating fishing opportunities within accepted biological limits. In simple terms, the exclusion of new entrants to a fully exploited fishery protects the stock (from additional fishing effort) but also the existing fishing industry (from reducing its participation).

Whether the interpretation of Orrego or Molenaar is followed, the determination of the share of new entrants (if any) is to be established following the criteria of UNFSA article 11. It is worth mentioning that the list of criteria is not closed, so other criteria may be considered as well by the member States of an RFMO. The criteria listed in article 11 can be classified in four main categories: biological (limits of the fishery), historical catches (fishing patterns, practices and catches), contribution (to the conservation, research and data submission), and need. The criterion of need, in turn, considers the dependence of coastal communities and of coastal States, as well as the interests of developing coastal States. It is possible to interpret that the interests of developing coastal States shall be assessed against the criteria established in article 24 of UNFSA, as will be explained below.

Developed vs. Developing States

According to article 119 of the LOSC, in adopting measures to maintain or restore populations of harvested species at levels which can produce the maximum sustainable

³⁷⁷ This view seem to be supported by Michael Lodge and Satja Nandan, who assert that “allocation rights are subordinate to the obligation to conserve” (Lodge and Nandan, *supra* note 282, at 374).

³⁷⁸ Peter Örebech, Ketill Sigurjonsson, and Ted L. McDorman, “The 1995 United Nations Straddling and Highly Migratory Fish Stocks Agreement: Management, Enforcement and Dispute Settlement”, (1998) 13 Int’l J. Mar. & Coast. L. 119, at 123.

yield, States shall take into account environmental and economic factors, including the special requirements of developing States. UNFSA, in turn, devotes a special part to the recognition of the special requirements of developing States in relation to conservation and management of straddling fish stocks and highly migratory fish stocks and development of fisheries for such stocks.³⁷⁹ In particular, States are required to take into consideration:

- a) the vulnerability of developing States which are dependent on the exploitation of living marine resources, including for meeting the nutritional requirements of their populations or parts thereof;
- (b) the need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and women fishworkers, as well as indigenous people in developing States, particularly small island developing States; and
- (c) the need to ensure that such measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States.³⁸⁰

It is unclear, however, to what extent these provisions shall influence either the recognition of developing coastal States rights in the establishment of compatible measures for the EEZ and high seas, or of developing States in the allocation of fishing opportunities in the high seas. Some authors have concluded, on the basis of article 25(2), that UNFSA imposes on members of RFMOs an obligation to cooperate that takes the form “of financial assistance, human resources development, technical assistance, transfer of technology through joint venture arrangements, and advisory and consultative services”,³⁸¹ but that “[n]othing in [UNFSA] gives developing States a *prima facie* right to an allocation of high seas fishing opportunities.”³⁸² Other authors, on the contrary, consider that reading articles 25 and 11 together, they “could be taken to mean that there is a certain preferential right in this respect.”³⁸³ Still, other authors argue, on the basis of the nature of the special requirements listed in article 24(2), that the provisions of Part

³⁷⁹ UNFSA, Part VII on Requirements of Developing States, articles 24 and 25.

³⁸⁰ UNFSA, article 24(2).

³⁸¹ Agnew et al., *supra* note 10, at 19.

³⁸² Agnew et al., *ibid.*

³⁸³ Orrego Vicuña, *supra* note 126, at 235. It must be noted, however, that Orrego has a limited interpretation of the concept of real interest and of participatory rights of new entrants. Thus, it may be argued that this “preference” applies only to developing States insofar they are coastal States or are fishing for the stock, i.e., insofar as they have a “real interest”.

VII of UNFSA were drafted to target the requirements of developing States insofar as they are coastal States.³⁸⁴

Article 25 considers, as one form of cooperation, the enhancement of the ability of developing States, in particular the least-developed among them and small island developing States, to conserve and manage straddling fish stocks and highly migratory fish stocks and to develop their own fisheries for such stocks. Presumably, “their own fisheries” refers to the possibility of developing a fishery within their EEZs. Whether this implies a certain preference for the allocation of fishing opportunities depends on the weight assigned to the needs of (developing) coastal States in relation to other criteria listed in article 7.

Article 25 also imposes the obligation to assist developing States to enable them to participate in high seas fisheries, including facilitating access to such fisheries subject to articles 5 and 11. The fact that an explicit reference is made to article 5 (on general principles for conservation and management of straddling stocks and highly migratory stocks) suggests that any access shall be subject to the state of exploitation of the stock. Article 11, in turn, considers in particular the needs of developing States only insofar as they are coastal States. Thus, the special recognition of developing States in high seas fisheries appears to be, at least, limited.

A Summary of Allocation Criteria

The three main conflicts of interest for high seas fisheries allocations are addressed separately in UNFSA. However, and as has been noted before, the conflicts are often substantially and procedurally intertwined in the process of establishing a total allowable catch and its allocation. What is attempted here is to summarize the main factors to provide an integrated list of considerations that need to be taken into account in the allocation process, drawing from each of the relevant provisions of UNFSA.

The summary of criteria does not eliminate the shortcomings noted for the legal framework. It does not assign weights, preferences, or priorities; nor does it determine the content with any more objectivity. Furthermore, it should be noted that in cases where

³⁸⁴ David H. Anderson, “The Straddling Stocks Agreement of 1995: An Initial Assessment” (1996) 45 I.C.L.Q. 463, at 473. For the contrary opinion, see: Orrego, *ibid*, at 225.

preferences or priorities are given to a particular criterion, or set of criteria, a steps-approach may be preferable. The purpose of this summary is simply to provide a simpler framework for further analysis.

In the allocation of fishing opportunities of straddling and highly migratory stocks, five categories of criteria need to be taken into account: biological considerations (which in turn include aspects of status of the stock and its distribution), management considerations, historical catches, socio-economic factors (need), and contribution. The criteria vary slightly for discrete stocks, in that the criteria for compatibility of measures in two areas under distinctive jurisdiction is not necessary. Thus, the concept of zonal attachment is not applicable.

The framework includes some elements that give each of these factors or criteria some precision in its content. These elements have been extracted from different UNFSA provisions.

The summary of criteria is the following:

a) Biological considerations

- Status of the stock:
 - the exploitation status of the stock, and
 - the harmful impact on the living marine resources as a whole
- Distribution of the stock:
 - the biological unit and other biological characteristics of the stocks
 - the relationships between the distribution of the stocks, the fisheries and the geographical particularities of the region concerned

b) Management considerations

- Existing regulations in the EEZ for the same stock
- Existing regulations in the high seas area for the same stock
- Existing regulations in other high seas areas for the same stock

c) Historical entitlement

- The fishing patterns and practices
- The extent to which the stocks occur and are fished in areas under national jurisdiction

d) Socio-economic factors

- Dependence of coastal States, including:

- needs of coastal fishing communities which are dependent mainly on fishing for the stocks
- the coastal States whose economies are overwhelmingly dependent on the exploitation of living marine resources
- the particular interests of developing coastal States
- Dependence of States fishing on the high seas on the stocks concerned
- Needs and dependence of developing States, including:
 - vulnerability of developing States which are dependent on the exploitation of living marine resources
 - vulnerability of developing State to meet the nutritional requirements of their populations or parts thereof;
 - the need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and women fishworkers;
 - the need to avoid adverse impacts on, and ensure access to fisheries by, indigenous people in developing States, particularly small island developing States;
 - the need to ensure that such measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States.

e) Contribution

- contribution to conservation and management of the stocks
- contribution to the collection and provision of accurate data
- contribution to the conduct of scientific research on the stocks

Section 3. Regional Frameworks for Allocation

The evolution of the legal framework for allocation addressed in chapter 2 highlighted the general recognition of the role of RFMOs in developing a transparent framework for allocation decisions. RFMOs, in the practical implementation of allocations in particular cases, have indeed had the opportunity to develop the allocation framework further. Different RFMOs have done it, at least to some extent, through allocation provisions in the Convention texts, or allocation guidelines adopted within the Commission. These mechanisms will be analyzed in turn.

Allocation Provisions in RFMOs Conventions

Just as in the case of UNFSA, RFMOs Conventions have provisions potentially affecting allocation processes. In particular, the rules for membership, the rules of

compatibility of management measures, of allocation of fishing opportunities, and of special requirements of developing States shall be taken into account.

SEAFO, WCPFC, CCSBT, and the recently signed SPRFMO Convention, include explicit provisions on allocation of fishing opportunities in their constitutional texts.³⁸⁵ In all cases, the provisions follow UNFSA provisions very closely, in particular article 11. As such, it has been commented that RFMOs regard Article 11 as a minimum list of criteria to decide on allocation of fishing opportunities.³⁸⁶ A noticeable difference, however, is that the provisions on allocation of fishing opportunities, when included in the Convention texts, guide the allocation between member States and not only allocations of new members. Despite the fact that they are provisions addressing the allocation problem directly, they should be read in connection with other provisions with potential allocation implications.

³⁸⁵ See: SEAFO Convention, article 20; WCPFC Convention, article 10(3); CCSBT Convention, article 8(4); South Pacific RFMO Convention, article 20(3). NAFO, a pre-UNFSA Convention, also contains a provision regarding allocation that is, however, rather limited in scope. NAFO Convention, article XI(4) reads: “Proposals adopted by the Commission for the allocation of catches in the Regulatory Area shall take into account the interests of Commission members whose vessels have traditionally fished within that Area, and, in the allocation of catches from the grand Bank and Flemish Cap, Commission members shall give special consideration to the Contracting Party whose coastal Communities are primarily dependent on fishing for stocks related to these fishing banks and which has undertake extensive efforts to ensure the conservation of such stocks through international action, in particular, by providing surveillance and inspection of international fisheries on these banks under an international scheme of joint enforcement.”

³⁸⁶ Molenaar, “Participation”, *supra* note 16, at 472,

Table 2. Allocation criteria in RFMO Conventions

CCSBT	WCPFC	SEAFO	SPRFMO
In deciding upon allocations among the Parties under paragraph 3 above the Commission shall consider:	In developing criteria for allocation of the total allowable catch or the total level of fishing effort the Commission shall take into account, inter alia:	In determining the nature and extent of participatory rights in fishing opportunities, the Commission shall take into account, inter alia:	When taking decisions regarding participation in fishing for any fishery resource, including the allocation of a total allowable catch or total allowable fishing effort, the Commission shall take into account the status of the fishery resource and the existing level of fishing effort for that resource and the following criteria to the extent relevant:
(a) relevant scientific evidence;	(a) the status of the stocks and the existing level of fishing effort in the fishery;	(a) the state of fishery resources including other living marine resources and existing levels of fishing effort, taking into account the advice and recommendations of the Scientific Committee;	(a) historic catch and past and present fishing patterns and practices in the Convention Area (or the relevant range of distribution, with the consent of the coastal State)
(b) the need for orderly and sustainable development of southern bluefin tuna fisheries;	(b) the respective interests, past and present fishing patterns and fishing practices of participants in the fishery and the extent of the catch being utilized for domestic consumption;	(b) respective interests, past and present fishing patterns, including catches, and practices in the Convention Area;	(b) compliance with the conservation and management measures under this Convention;
(c) the interests of Parties through whose exclusive economic or fishery zones southern bluefin tuna migrates;	(c) the historic catch in an area;	(c) the stage of development of a fishery;	(c) demonstrated capacity and willingness to exercise effective flag State control over fishing vessels;
(d) the interests of Parties whose vessels engage in fishing for southern bluefin tuna including those which have historically engaged in such fishing and those which have southern bluefin tuna fisheries under development;	(d) the needs of small island developing States, and territories and possessions, in the Convention Area whose economies, food supplies and livelihoods are overwhelmingly dependent on the exploitation of marine living resources;	(d) the interests of developing States in whose areas of national jurisdiction the stocks also occur;	(d) contribution to the conservation and management of fishery resources, including the provision of accurate data and effective monitoring, control, surveillance and enforcement;

CCSBT	WCPFC	SEAFO	SPRFMO
(e) the contribution of each Party to conservation and enhancement of, and scientific research on, southern bluefin tuna;	(e) the respective contributions of participants to conservation and management of the stocks, including the provision by them of accurate data and their contribution to the conduct of scientific research in the Convention Area;	(e) contributions to conservation and management of fishery resources in the Convention Area, including the provision of information, the conduct of research and steps taken to establish cooperative mechanisms for effective monitoring, control, surveillance and enforcement;	(e) the fisheries development aspirations and interests of developing States in particular small island developing States and of territories and possessions in the region;
f) any other factors which the Commission deems appropriate.	(f) the record of compliance by the participants with conservation and management measures;	(f) contributions to new or exploratory fisheries, taking account of the principles set out in article 6.6 of the 1995 Agreement;	(f) the interests of coastal States, and in particular developing coastal States and territories and possessions, in a fishery resource that straddles areas of national jurisdiction of such States, territories and possessions and the Convention Area;
	(g) the needs of coastal communities which are dependent mainly on fishing for the stocks;	(g) the needs of coastal fishing communities which are dependent mainly on fishing for the stocks in the South East Atlantic; and	(g) the needs of coastal States and of territories and possessions whose economies are dependent mainly on the exploitation of and fishing for a fishery resource that straddles areas of national jurisdiction of such States, territories and possessions and the Convention Area;
	(h) the special circumstances of a State which is surrounded by the exclusive economic zones of other States and has a limited exclusive economic zone of its own;	(h) the needs of coastal States whose economies are overwhelmingly dependent on the exploitation of fishery resources.	(h) the extent to which a member of the Commission is utilising the catch for domestic consumption and the importance of the catch to its food security;
	(i) the geographical situation of a small island developing State which is made up of non-contiguous groups of islands having a distinct economic and cultural identity of their own but which are separated by areas of high seas;		(i) contribution to the responsible development of new or exploratory fisheries in accordance with Article 22; and

CCSBT	WCPFC	SEAFO	SPRFMO
	(j) the fishing interests and aspirations of coastal States, particularly small island developing States, and territories and possessions, in whose areas of national jurisdiction the stocks also occur.		(j) contribution to the conduct of scientific research with respect to fishery resources and the public dissemination of the results of such research.

Allocation Guidelines

Some organizations do not have criteria in their Conventional texts, but have developed non-binding allocation guidelines. Others have supplemented the conventional provisions with such guidelines. They refer either to allocation of fishing opportunities to new entrants only, or to the allocation of fishing opportunities among contracting parties (including new entrants).

NAFO and NEAFC have adopted non-binding guidelines with respect to allocation of fishing opportunities for new entrants. On 17 September 1999, the General Council of NAFO adopted Resolution 1/99 to guide the expectations of future new members with regard to fishing opportunities in the NAFO Regulatory Area.³⁸⁷ In turn, NEAFC member States agreed on Guidelines for the expectation of future new contracting parties with regard to fishing opportunities in the NEAFC Regulatory Area at their 22nd Annual Meeting in November 2003.³⁸⁸ Both of these documents, similar in structure and wording, basically warn new entrants that fish stocks at the moment are fully exploited and that fishing possibilities are restricted to the share of the quota apportioned to the category “others” or to new fisheries not currently allocated.³⁸⁹

NAFO also has developed some allocation guidelines applicable to contracting parties, but due to lack of consensus on some of its fundamental components (and

³⁸⁷ NAFO, Resolution 1/99, *supra* note 288.

³⁸⁸ NEAFC, *Guidelines for the expectation of future new Contracting Parties with regard to fishing opportunities in the NEAFC Regulatory Area*, agreed at the 22nd Annual Meeting of NEAFC in November 2003, online: NEAFC <<http://www.neafc.org>>.

³⁸⁹ NAFO Resolution 1/99, *supra* note 288, recognizes in paragraph 1 that NAFO is an open organization, and that non-members may join the Organization by depositing an instrument of accession and become a member of the General Council (albeit not necessarily of the Fisheries Commission). Paragraph 2 adds: “Should any new member of NAFO obtain membership in the Fisheries Commission, in accordance with Article XIII(1) of the Convention, such new members should be aware that presently and for the foreseeable future, stocks managed by NAFO are fully allocated, and fishing opportunities for new members are likely to be limited, for instance, to new fisheries (stocks not currently allocated by TAC/quota or effort control), and the “Others” category under the NAFO Quota Allocation Table. NEAFC guidelines, in turn, read: “Non Contracting Parties of NEAFC should be aware that presently and for the foreseeable future, stocks regulated by NEAFC are fully allocated, and fishing opportunities for new members likely to be limited to new fisheries (stocks not currently allocated); New Contracting Parties will participate, on the same basis as existing Contracting Parties, in future allocations of stocks which are unregulated at the time when the application is made; New Contracting Parties who were previously Cooperating Non Contracting Parties may request an allocation of a part of the relevant Co-operative quota. Such allocations will be done on a case by case basis.”

particularly, its scope of application), they were never officially adopted.³⁹⁰ ICCAT, in turn, completed in 2001 the process of adopting a non-binding resolution on guidelines for the allocation of fishing opportunities applicable to both contracting parties and new members.

Both NAFO and ICCAT introduce a novel aspect in the allocation guidelines. They distinguish two different set of criteria: qualifying criteria, and allocation criteria. The qualifying criteria are a set of conditions that a State has to fulfill in order to be eligible for an allocation.

Table 3. Qualifying criteria in ICCAT and NAFO guidelines

NAFO	ICCAT
<p>Be a member of the Fisheries Commission, who:</p> <ul style="list-style-type: none"> – may exercise the right to vote; – collects and provides accurate data for the relevant stocks; – contributes to scientific research on NAFO stocks; – exercises effectively jurisdiction over the vessels flying its flag operating in the Convention Area; and – ensures compliance with the proposals adopted in accordance with Article XI of the Convention and notably the NAFO Conservation and Enforcement Measures; and <p>Have an interest in the allocation of fishing opportunities of the relevant stocks in one or more of the following ways:</p> <ul style="list-style-type: none"> – be a coastal State for relevant straddling stocks; – have vessels that have traditionally fished the relevant stocks in accordance with NAFO rules, where applicable; – have undertaken extensive efforts to ensure the conservation of such stocks in particular by providing surveillance and inspection of international fisheries under the international scheme of joint enforcement; – have undertaken significant contribution to research and data collection for the relevant stocks; – have economies that are overwhelmingly dependent on fisheries; or – have coastal communities that are dependent on fishing for the stocks regulated by NAFO. 	<ol style="list-style-type: none"> 1. Be a Contracting or Cooperating Non-Contracting Party, Entity or Fishing Entity. 2. Have the ability to apply the conservation and management measures of ICCAT, to collect and to provide accurate data for the relevant resources and, taking into account their respective capacities, to conduct scientific research on those resources

³⁹⁰ NAFO, *Draft Guidelines for future allocation of fishing opportunities for the stocks not currently allocated* (Allocation W.G. Working Paper 03/3-Rev. 3) in Annex 11 of Report of the Working Group on Allocation of Fishing Rights to the Contracting Parties of NAFO, 26-27 March 2003, Miami, Florida, USA (FC Doc. 03/2), online NAFO <<http://www.nafo.int>>.

The qualifying criteria differ in several respects. First, NAFO requires the participants to be members of the organization and more specifically, the Fisheries Commission; while ICCAT foresees the possibility of allocating fishing opportunities to non-members, if they are granted the status of cooperating non-member. ICCAT also foresees explicitly the possibility of allocating fishing opportunities to fishing entities, which is of considerable importance to account for fishing powers like EU and Chinese Taipei. ICCAT requires, in addition to membership or cooperating non-member status, the ability to comply with conservation measures and provide scientific data. The ability to conduct of scientific resource is also considered, but qualified by the respective capacity of the participant. NAFO, in turn, considers those elements but also adds a set of other elements that relate not to its capacity but to an established interest in the fishery.

With respect to the second type of criteria, the allocation criteria, the approach of NAFO and ICCAT also differ significantly. Both documents list several criteria that need to be taken into account in the allocation process. However, NAFO draft guidelines contain a very limited list of allocation criteria. ICCAT, in turn, has over 15 criteria that need to be taken into account in the allocation process, which have been classified under four main categories.

Table 4. Allocation criteria in NAFO and ICCAT guidelines

NAFO ³⁹¹	ICCAT
<ul style="list-style-type: none"> • historical fishing in accordance with NAFO rules during a representative reference period; 	<p><i>A. Criteria Relating to Past/Present Fishing Activity of Qualifying Participants</i></p> <p>4. Historical catches of qualifying participants.</p> <p>5. The interests, fishing patterns and fishing practices of qualifying participants</p>
	<p><i>B. Criteria Relating the Status of the Stock(s) to be Allocated and the Fisheries</i></p> <p>6. Status of the stock(s) to be allocated in relation to maximum sustainable yield, or in the absence of maximum sustainable yield an agreed biological reference point, and the existing level of fishing effort in the fishery taking into account the contributions to conservation made by qualifying participants necessary to conserve, manage, restore or rebuild fish stocks in accordance with the objective of the Convention.</p> <p>7. The distribution and biological characteristics of the stock(s), including the occurrence of the stock(s) in areas under national jurisdiction and on the high seas.</p>

³⁹¹ The order of the criteria has been altered to reflect the comparable criteria in ICCAT guidelines.

NAFO	ICCAT
<ul style="list-style-type: none"> • needs of coastal communities which are dependent on fishing for the stock concerned; and/or 	<p><i>C. Criteria Relating to the Status of the Qualifying Participants</i></p> <p>8. The interests of artisanal, subsistence and small-scale coastal fishers.</p> <p>9. The needs of the coastal fishing communities which are dependent mainly on fishing for the stocks.</p> <p>10. The needs of the coastal States of the region whose economies are overwhelmingly dependent on the exploitation of living marine resources, including those regulated by ICCAT.</p> <p>11. The socio-economic contribution of the fisheries for stocks regulated by ICCAT to the developing States, especially small island developing States and developing territories¹ from, the region.</p> <p>12. The respective dependence on the stock(s) of the coastal States, and of the other States that fish species regulated by ICCAT.</p> <p>13. The economic and/or social importance of the fishery for qualifying participants whose fishing vessels have habitually participated in the fishery in the Convention Area.</p> <p>14. The contribution of the fisheries for the stocks regulated by ICCAT to the national food security/needs, domestic consumption, income resulting from exports, and employment of qualifying participants.</p> <p>15. The right of qualified participants to engage in fishing on the high seas for the stocks to be allocated.</p>
<ul style="list-style-type: none"> • contribution to the NAFO Conservation and Enforcement Measures • contribution to research and data collection on the stock concerned; 	<p><i>D. Criteria Relating to Compliance/Data Submission/Scientific Research by Qualifying Participants</i></p> <p>16. The record of compliance or cooperation by qualifying participants with ICCAT's conservation and management measures, including for large-scale tuna fishing vessels, except for those cases where the compliance sanctions established by relevant ICCAT recommendations have already been applied.</p> <p>17. The exercise of responsibilities concerning the vessels under the jurisdiction of qualifying participants.</p> <p>18. The contribution of qualifying participants to conservation and management of the stocks, to the collection and provision of accurate data required by ICCAT and, taking into account their respective capacities, to the conduct of scientific research on the stocks.</p>

In addition, both NAFO and ICCAT include some rules under the title of “allocation considerations” or “conditions for the application of allocation criteria”. Again, NAFO’s considerations are rather simple;³⁹² while ICCAT lists 9 conditions which include important principles that States are to follow in the allocation process. Among them, the resolution explicitly states that the allocation criteria should be applied on a stock-by-stock basis in a fair and equitable manner with the goal of ensuring opportunities for all qualifying participants; and that they should be applied in a gradual manner in order to address the economic needs of all parties concerned, including the need to minimize economic dislocation.³⁹³

What Do Regional Instruments Add to the Legal Framework for Allocation?

After describing the efforts of different RFMOs to address the allocation problem, it is worth considering what these instruments add to the substantive allocation framework of the organization. In general, it is easy to conclude that they add very little. As has been pointed out, they follow UNFSA, and in particular article 11, very closely. This implies that they share their main characteristics and prescriptive shortcomings.

In the case of RFMO Conventions, they also follow the practice of UNFSA of addressing different conflicts of interests in different provisions. There is, mostly, no “fundamental norm” that acts as a benchmark for allocation.

³⁹² NAFO Resolution 1/99, *supra* note 288, in the pertinent section, reads: “A part of the fishing opportunities of the fishable stock(s) or, where appropriate, the portion of the fishable stock(s) in the Regulatory Area, may be set aside as an others quota intended for Contracting Parties who have no record of fishing on the stock concerned. Minimum fishing opportunities to be allocated to Contracting Parties may be established for the relevant stock(s).”

³⁹³ ICCAT Resolution 01-25, *supra* note 300, Paragraph IV, particularly 19, 20 and 21. Other conditions included in Paragraph IV are: the application of the allocation criteria should take into account the contributions to conservation made by qualifying participants necessary to conserve, manage, restore or rebuild fish stocks in accordance with the objective of the Convention; the allocation criteria should be applied consistent with international instruments and in a manner that encourages efforts to prevent and eliminate over-fishing and excess fishing capacity and ensures that levels of fishing effort are commensurate with the ICCAT objective of achieving and maintaining MSY; the allocation criteria should be applied so as not to legitimize illegal, unregulated and unreported catches and shall promote the prevention, deterrence and elimination of illegal, unregulated and unreported fishing, particularly fishing by flag of convenience vessels; the allocation criteria should be applied in a manner that encourages cooperating non-contracting parties, entities and fishing entities to become contracting parties, where they are eligible to do so; the allocation criteria should be applied to encourage cooperation between the developing States of the region and other fishing States for the sustainable use of the stocks managed by ICCAT and in accordance with the relevant international instruments; no qualifying participant shall trade or sell its quota allocation or a part thereof.

The criteria themselves are included, in general, in open lists (using the expression “inter alia” or explicitly recognizing that the Commission may take other elements into considerations). The guidelines impose only an obligation to take into account the criteria listed, without any guidance on the weight, priority or preference that each element should be afforded. The specific weights to be accorded to the various factors are considered to be an issue that needs to be resolved on a case-by-case basis.³⁹⁴ In addition, the criteria are qualitative and lacking operational details.

This general assessment deserves some qualification. Some of the RFMO criteria add some elements to the substantive framework. These elements relate to participation and access to fisheries, and to general guiding principles. These two aspects will be analyzed in turn.

Some regional criteria provide some guidance on access to the fisheries, mainly in two ways. Firstly, the NAFO and NEAFC guidelines basically put a moratorium on new entrants to the fisheries. It can be argued that these guidelines balance the different interests by prioritizing conservation and existing fishing patterns. More interesting, from the perspective of a legal framework is the contribution made by NAFO and ICCAT guidelines on qualifying criteria. These qualifying criteria, as has been noted, define a series of States’ qualities and conducts that need to be fulfilled to be eligible for allocation. In so doing, NAFO and ICCAT are not necessarily addressing the interpretations problem surrounding the concept of “real interest”, which refers to participation in the RFMO rather than allocation of quota. But certainly, since participation in the RFMO is usually motivated by the expectation of quota, by defining qualities and conducts that are required to be eligible for allocation they are addressing the more critical aspect deriving from participation.

In addition to the guidance on access and effective participation in fisheries, ICCAT makes an important contribution to the allocation framework by providing a series of “conditions” that should be followed in the consideration of the different criteria. These

³⁹⁴ During the discussion in the ICCAT Working Group on Allocation, it was agreed not to weight the different factors that need to be taken into account, since that was considered an exercise that needs to be done by the panel while deciding a particular allocation scheme (ICCAT, *Report for biennial period, 2000-2001, Part II (2001)*, *supra* note 303, Report of the 4th Ad hoc Working Group on Allocation Criteria, Murcia, Spain, 7-9 November 2001 in Annex 7 of the Proceedings of the 17th Regular Meeting of the Commission, at 180). See also: ICCAT, Resolution 01-25, *supra* note 300, para. 23.

conditions qualify as general principles guiding the allocation process, including a fundamental norm (equity) and subsidiary principles. These are:

- The allocation criteria should be applied in a fair and equitable manner with the goal of ensuring opportunities for all qualifying participants.
- The allocation criteria should be applied to all stocks in a gradual manner, over a period of time to be determined by the relevant Panels, in order to address the economic needs of all parties concerned, including the need to minimize economic dislocation.
- The allocation criteria should be applied consistent with international instruments
- The allocation criteria should be applied in a manner that encourages efforts to prevent and eliminate over-fishing and excess fishing capacity and ensures that levels of fishing effort are commensurate with the ICCAT objective of achieving and maintaining MSY.
- The allocation criteria should be applied so as not to legitimize illegal, unregulated and unreported catches and shall promote the prevention, deterrence and elimination of illegal, unregulated and unreported fishing, particularly fishing by flag of convenience vessels.
- The allocation criteria should be applied in a manner that encourages cooperating Non-Contracting parties, Entities and Fishing Entities to become Contracting Parties, where they are eligible to do so.
- The allocation criteria should be applied to encourage cooperation between the developing States of the region and other fishing States for the sustainable use of the stocks managed by ICCAT.

Section 4. Allocation in Practice

The sections above have described the global and regional theoretical frameworks for allocation of fishing opportunities, and their shortcomings. This section provides a practical overview of implementation of allocation decisions. For this purposes, the section provides a general description of the usual kind of allocation agreements adopted by RFMOs, followed by some practical examples of each kind. Afterwards, some general observations are made on the relationship between the theoretical framework (allocation criteria and guidelines adopted by RFMOs) and its practical implementation through allocation agreements.

Allocation Agreements Adopted by RFMOs

The allocation agreements adopted by RFMOs can be implicit or explicit. It is implicit (also called *de facto*³⁹⁵), if the adopted conservation measure contains a general rule on limiting catches or effort to a certain reference period. The specific limit for each country is not contained in the conservation measure, but it can be inferred from the statistical data. The agreement is explicit, in turn, when the conservation measure assigns a specific catch or effort limit to individual States.

An explicit agreement in practice can adopt a variety of modalities in relation to its unit, its duration, and its scope. A catch allocation agreement may assign specific catch quantities (expressed in tonnes) to individual States, or it may be expressed as percentage participation on the TAC. There have been agreements that combine those two methods. An effort allocation agreement may assign a number of authorized vessels (usually joined by technical characteristics of the vessels), a limitation on a certain technical indicator of effort (i.e., GRT), or a limitation on days or hours for engaging in fishing activities.

Catch allocation agreements are usually one-year agreements, but they can also be multi-year or long-term agreements. If this is the case, they may include pre-agreed reduction or increase of national quotas as the result of reductions or increases in the TAC.

The agreement can also involve all members of the RFMOs, or only a subset of the member States (usually the main States fishing for the respective stock). In the latter case, it may be understood that the participants that do not have an allocated quota cannot participate in the fishery. In this case, the agreement is equivalent to assigning them a quota zero. It may also be understood that they are allowed to fish without a quantitative restriction. Or it may be agreed that States without a national quota participate in a common quota duly established. Differential norms establishing catch or effort limits are especially common in RFMOs with a significant participation of developing States.

The next paragraphs provide a sample of allocation agreements. They were chosen as examples that demonstrate the variety of agreements that have been design in different RFMOs and for different stocks. The first example, WCPFC limitation on

³⁹⁵ Agnew et al., *supra* note 10, at 25 and 45.

effort and catches for swordfish, illustrates the common first step in an allocation process: freezing catches or effort. It also illustrates one particular form of differentiated treatment. The second example, the CCSBT MoU, illustrates a percentage and long-term allocation agreement that includes provisions in case of variations in the TAC. The third example, the ICCAT agreement on Western Atlantic bluefin tuna, illustrates a combination of numeric and percentage agreement, with also provides for pre-agreed modifications in case of TAC variations. Finally, the NAFO quota table illustrates the simplest design of allocation agreement: a table of national quotas.

a) WCPFC Limitations on Effort and Catches for the Swordfish Fisheries

WCPFC first adopted a conservation measure for swordfish by Conservation and Management Measure 2006-03, which was later replaced by Conservation and Management Measures 2008-05 and 2009-03. The current measure establishes a limit effort and catch in the following terms:

Commission Members, Cooperating Non-Members and participating Territories (CCMs) shall exercise restraint through limiting the number of their fishing vessels for swordfish in the Convention Area south of 20°S, to the number in any one year between the period 2000-2005 (listed in Annex 1).

In addition to vessel limits established under paragraph 1, CCMs shall exercise restraint through limiting the amount of swordfish caught by fishing vessels flagged to them in the Convention Area south of 20°S to the amount caught in any one year during the period 2000-2006.

The agreement results in an implicit limit of catches determined, for each State, by the higher levels of effort and catches registered in the 2000-2005 and 2000-2006 period, respectively. As a consequence, the TAFE and TAC are also implicitly determined by the sum of those individual (higher) levels of effort and catches.

This conservation and management measure, however, has an exception. Paragraph 5 reads:

Paragraphs 1 to 4 and paragraph 9 shall not prejudice the legitimate rights and obligations under international law of small island developing State and participating Territory CCMs, in the Convention Area who may wish to pursue a responsible level of development of their own fisheries in the Convention Area.

The exception is an answer to the exclusive rights of coastal States in the area in which waters under national jurisdiction the swordfish also migrates.

b) CCSBT and the MoU

In their first meeting, the member States of the CCSBT Japan, Australia and New Zealand agreed upon distribution rules to be applied to the Southern bluefin tuna. They agreed, firstly, to distribute the TAC with the following TAC and national quotas:

Japan	6065 tonnes
Australia	5265 tonnes
New Zealand	420 tonnes

According to the understanding, as the global quota is increased, the Australian relative participation should move to equality with Japan's national allocation (Australia moving up and Japan moving down) and New Zealand's allocation should increase to either 1,000 tonnes or 6% of the global quota, whichever is greater. The adjustments would occur over a series of 4 steps, each of them involving a variety of conditions that required country's to achieve certain catch levels by qualifying fleets before moving to the next step. The primary adjustments were to commence once the global quota reached 12,750 tonnes. However, the agreement also included an initial 30 tones increase to New Zealand as soon as the global quota increased.³⁹⁶

The Memorandum of Understanding was not applied until 2010. During the period 1994-2009, CCSBT allocations were marked by the scientific dispute between Australia and New Zealand, on one side, and Japan, on the other, on the real status of the stock; and the allocation of fishing opportunities for new participants in the fishery. During the 2009 Meeting held in October, the member States (including now Japan, Australia, New Zealand, the Republic of Korea, Indonesia, and the fishing entity of Taiwan as member of the extended Commission) agreed to apply the Memorandum of Understanding without taking into account the steps initially considered. However, the national quotas were affected by a reduction in the TAC (applied after the terms of the

³⁹⁶ CCSBT has no official records of their first meeting. The information on the terms of the CCSBT Memorandum of Understanding was provided by Robert Kennedy, Executive Secretary of CCSBT, in private communication.

Memorandum of Understanding) and by a temporal reduction of the Japanese quota due to underreporting prior to 2006.

c) ICCAT and Percentage Agreements

The first ICCAT allocation agreements were expressed in tonnes. An example thereof is the West Atlantic bluefin tuna. The agreement in 1982 considered the distribution of the West Atlantic stock among the three main fishing States in the following quantities:

Canada	250 tonnes
Japan	305 tonnes
USA	605 tonnes

As the quota was increased or reduced, the participation of each member State increased or reduced in the same proportion. In 1994, the proportional participation of each State changed, to leave Japan with a lower comparative participation (from to ca. 26% to 13%), and Canada and USA with quotas that respected their participation in 1991. In addition, the participation of each State was dependent upon the evolution of the TAC. The greater the TAC, the bigger the percentage that Japan would have in the TAC, recovering its ca. 26% when the TAC is above 2,660 tonnes. In addition, a few other countries claimed and were granted some participation in the fishery, which were expressed in tonnes. The current recommendation considers two steps for the allocation of TAC, which are summarized in the following table:

Table 5. ICCAT, allocation of national quotas of Western Atlantic bluefin tuna

First step: TAC initial reductions:

State	Tonnes
UK	4
France	4
Mexico	95
USA bycatch	25
Canada bycatch	15

Second step: Distribution of the reminder among main fishing States:

State	If the reminder of the TAC is			
	< 2,413 t	2,413 t	> 2,413 t – 2,660 t	> 2,660 t
Canada	23.75%	573	573	21,54%
Japan	18.77%	453	453 + increase between 2,413 t & 2,660 t	26,32%
USA	57.48%	1,387 t	1,387	52,14%

d) NAFO and Allocation Tables

The allocation agreements of NAFO are reflected in a table that expressed the national quota, expressed in tonnes, for a particular year and TAC. No provisions are made as to pre-agreed allocation agreement in cases of changing circumstances, including changes in TAC, distribution of the stock, or changes in the participants. In the case of NAFO, changes in participants, and particularly the acceptance of new entrants, is an excluded, or at least very difficult, possibility in light of the Resolution to guide expectations of new entrants adopted in 1999.

Usually, allocation agreements of this kind reflect an implicit distribution of each stock that is respected in future allocations. In other words, although the table is expressed in metric tonnes, it implicitly recognizes a percentage of participation that is usually respected in future allocations over increased or reduced TACs. Clear examples thereof are the fisheries for cod in division 3M and redfish in division 3LN. During the 2009 Meeting, the Fisheries Commission agreed to re-open these fisheries in 2010, after more than 10 years of moratorium. TAC and allocations were adopted. The allocation scheme respected the proportional participation of the States fishing for redfish and cod in the respective statistical area in the year before the moratorium, as reflected in the last allocation agreement. This decision, however, has faced opposition by some member States.³⁹⁷

³⁹⁷ See: NAFO, *Report of the Fisheries Commission and its Subsidiary Body* (STACTIC) 31st Annual Meeting, September 21-25, 2009, Bergen, Norway (FC Doc. 09/21), agenda item 8.1 at 6-7, online: NAFO <<http://www.nafo.int>>.

Table 6. Table NAFO Quota Table 2010,³⁹⁸ partial reproduction

	Cod				Redfish					American plaice		Yellowtail	Witch		White hake	Capelin
	3L	3M	3% 3M	3NO	3LN	3% 3LN	3M	3O	SA2 + 1F + 3K	3LNO	3M	3LNO	3L	3NO	3NO	3NO
Canada	-	44	0.80	0	1,491	42.60	500	6,000	385	0	0	16,575		0	1,765	0
Cuba	-	204	3.70	-	343	9.80	1,750	-	385	-	-	-		-		0
Denmark (Faroe Islands and Greenland)	-	1,229	22.35	-	-	-	69	-	9,627	-	-	-				
European Union	-	3,136	57.03	0	638	18.23	7,813	7,000	9,627 2,503	0	0	-		0	3,529	0
France (St. Pierre et Miquelon)	-	-	-	-	-	-	69	-	385	-	-	340		-		
Iceland	-	-	-	-	-	-	-	-	9,627	-	-	-		-		
Japan	-	-	-	-	-	-	400	150	385	-	-	-		-		0
Korea	-	-	-	-	-	-	69	100	385	-	-	-		-		
Norway	-	509	9.25	-	-	-	-	-	9,627	-	-	-		-		0
Russian Federation	-	356	6.47	0	1,007	28.77	9,137	6,500	9,627	-	0	-		0	353	0
Ukraine	-	-	-	-	-	-	-	150	385	-	-	-		-		
USA	-	-	-	-	-	-	69	-	385	-	-	-		-		
Others	-	22	0.40	0	21	0.60	124	100	-	0	0	85		0	353	
TOTAL	*	5,500	100	*	3,500	100	10,000	20,000	12,516	*	*	17,000	*	*	6,000	*

³⁹⁸ The NAFO table is included in NAFO, *Conservation and Management Measures 2010*, *supra* note 236.

Allocation Criteria: Any Influence for Allocation Decisions?

The influence and usefulness of the allocation criteria and guidelines for the allocation negotiations and the final decisions is hard to assess for several reasons. Firstly, most RFMOS that have allocation criteria in their Conventions, or have developed allocation guidelines, have not consistently engaged in allocation practices. Only NAFO³⁹⁹, NEAFC,⁴⁰⁰ ICCAT⁴⁰¹ and the CCSBT manage most of the stocks under their jurisdiction with TACs and allocations.⁴⁰² Another pre-UNFSA organization (IATTC) has traditionally adopted national limits on fishing effort. Only recently, it adopted a conservation measure for bigeye tuna that includes a limit of fishing effort or limit of catches and, for some participating States, a national quota.⁴⁰³ CCAMLR has not adopted nationally allocated TACs. The use of the conservation and management measure has been proposed, but rejected by the contracting parties.⁴⁰⁴

³⁹⁹ NAFO currently manages 20 stocks. For 2010, seven are under moratorium, but are expected to be managed with TAC and national allocations when they recover to sustain a commercial fishery (cod in divisions 3L and 3NO, American plaice in divisions 3LNO and 3M, witch in divisions 3L and 3NO, and capelin in Division 3NO). Eleven are managed through TAC and national allocations (cod in division 3M, redfish in divisions 3LN, 3M, 3O, subareas 2+3 and division 1F+3K, yellowtail in division 3LNO, white hake in division 3NO, skates in division 3LNO, Greenland halibut in division 3LMNO, squids in subarea 3+4, and shrimp in division 3L(NO). One stock is managed through limits on fishing efforts and its national allocation (shrimp in division 3M).

⁴⁰⁰ NEAFC currently manages 8 stocks. Two pelagic stocks are managed under a TAC and allocation primarily agreed upon by the relevant coastal States (blue whiting and Norwegian spring spawning or Atlanto-Scandian herring). With respect to another pelagic stock, mackerel, agreement could not be reached and is currently not under TAC regulation. The pelagic redfish in the Irminger Sea is managed through national quotas that, according to NEAFC recommendation, cannot be increased. The pelagic redfish in the ICES subareas I and II is managed through an unallocated TAC. Orange roughy has also been put under fishing effort and catch restrictions. Other demersal species, such as Rochall haddock, are managed through closed areas.

⁴⁰¹ ICCAT manages 6 stocks with a TAC and national allocations (Northwestern bluefin tuna and Northeastern and Mediterranean bluefin tuna, Northern albacore, Northern and Southern swordfish, and bigeye tuna). One stock is managed with a TAC and an incomplete system of allocation that allows the main fishing States to catch a certain amount of the TAC in Olympic fishery (Southern albacore). Other important commercial and non-commercial stocks have not been put into a TAC regime or any other form of restricting fishing mortality (yellowfin tuna, skipjack tuna, blue and white marlin, small tunas and sharks).

⁴⁰² It must be remembered that in some cases, agreements have failed, have faced objections by one or more contracting party, or are not comply with by contracting parties or non-contracting parties.

⁴⁰³ See: IATTC, Resolution C-09-01 on a multiannual program for the conservation of tuna in the Eastern Pacific Ocean in 2009-2001, adopted at the IATTC 80th meeting held in La Jolla, California (USA), 8-12 June 2009, online: IATTC <<http://www.iaatc.org>>.

⁴⁰⁴ CCAMLR, *Report of the eleventh meeting of the Commission for the Conservation of Antarctic Marine Living Resources*, Hobart, Australia, 26 October - 6 November, 1992, online: <<http://www.ccamlr.org>>, para. 9.29 -9.33, at 25.

Recent RFMOs have not (yet) engaged in allocation of national quotas. In some cases, they have not adopted conservation and management measures limiting fishing effort or catches. That is the case of SEAFO, a new organization that has only adopted few conservation measures to this day. Others RFMOs have adopted only measures to limit fishing effort or catches to existing levels, or to the levels at a certain reference period. That is the case of IOTC⁴⁰⁵ and WCPFC⁴⁰⁶. That is also the case of the non-binding interim measures adopted in the context of South Pacific RFMO negotiation process.⁴⁰⁷

Table 7 illustrates different levels of recognition of TAC and allocations in the RFMOs texts, and different levels of development of allocation criteria and guidelines. It illustrates clearly that most of the allocation practices take place in RFMOs that have a weaker regulatory framework for allocations. It is difficult to assess, in that circumstance, how the allocation criteria help the allocation negotiation process.

Table 7. Allocation framework and practices in RFMOs

RFMO	Has the Convention explicit mandate for TAC and allocation	Has the Convention criteria for allocation?	Has the RFMO developed criteria for allocation?	Is allocation used as conservation tool?	Are criteria used?	Has performance been assessed?
NAFO						
IATTC						
NEAFC						
ICCAT						
CCAMLR						
IOTC						
CCSBT						
WCPFC						
SEAFO						
SPRFMO						

⁴⁰⁵ See, for example: IOTC, Resolution 07/05 on Limitation of fishing capacity of IOTC Contracting Parties and Cooperating Non-Contracting Parties in terms of number of longline vessels targeting swordfish and albacore, superseded by IOTC Resolution 09/02 on the Implementation of a limitation of fishing capacity of Contracting Parties and Cooperating Non-Contracting Parties, both online: IOTC <<http://www.iotc.org>>.

⁴⁰⁶ See, for example: WCPFC, Conservation and Management Measure 2006-03 for Swordfish, online: WCPFC <<http://www.wcpfc.int>>, and text above.

⁴⁰⁷ See: SPRFMO, Interim Management Measures, *supra* note 327, and SPRFMO, Revised Interim Measures for Pelagic Fishing, adopted at the 8th meeting of the International Consultations on the Proposed South Pacific Regional Fisheries Management Organization, held in Auckland, New Zealand, on 14 November 2009, online: SPRFMO <<http://www.southpacificrfmo.org>>.

A second reason why that assessment is difficult is that the deliberations on allocation and the different proposals and their justifications are usually not made public. The criteria, considerations, principles, goals or objectives that were taken into consideration in adopting a particular allocation agreement, and the weight given to each criterion, are not stated in the respective documents. Only in a few cases, the criteria and their relative weight can be found in the records of the negotiation process.⁴⁰⁸ More often, the discussions take place in small closed meetings, in bilateral negotiations outside the formal RFMOs Commission forum, or are simply not made public.

A preliminary assessment of the adequacy of the legal framework can be drawn from the performance reviews undertaken by some RFMOs: ICCAT, CCSBT, NEAFC, IOTC and CCAMLR.⁴⁰⁹ These performance reviews show different assessment of this subject in different RFMOs. In ICCAT, the performance review committee noted a growing dissatisfaction on allocation issues, attributed to a) the weak powers of the commission according to article VIII of the Convention to recommend quota allocations; b) the non-binding character of the criteria; b) the ambiguous formulation of the criteria.⁴¹⁰ In addition, transparency problems were raised by some member States. In relation to ICCAT allocation practices, Butterworth and Penney point out that the ICCAT criteria have served as little more than a “shopping list”⁴¹¹ from which each State seeks the equity arguments that suit their national interest.

⁴⁰⁸ A good example thereof is the report of the failed negotiation on allocation of quotas for shrimp in division 3M (managed through fishing effort allocation) and a re-negotiation of the allocation of quotas for shrimp in division 3L. The report includes the debate and specific proposals tabled by different participating States, which included the factors to be taken into account (mostly historical catches in different periods between 1993 and 2007) and the weight to be assigned to each factor (NAFO, *Report of the Intersessional Meeting of the Fisheries Commission*, 30 April 30 – 7 May 2008, Montreal, Canada (FC Doc. 08/4), online: NAFO <<http://www.nafo.int>>).

⁴⁰⁹ See: *supra* note 81. ICCAT, CCSBT, NEAFC and IOTC included fishing allocation and opportunities in their terms of reference. The terms of reference of ICCAT and CCSBT performance reviews were drafted following the common guidelines developed by the initiative of the joint meeting of the tuna RMFOs held in Kobe in 2007. The pertinent aspect to be review is: extent to which the RFMO agrees on the allocation of allowable catch or levels of fishing effort, including taking into account requests for participation from new members or participants as reflected in UNFSA Article 11. NEAFC also included allocation in their terms of reference in two separate items: under fishing allocations expressed as the extent to which NEAFC successfully allocates fishing opportunities, and under participatory rights of newcomers expressed as extent to which NEAFC is determining participatory rights of new members in accordance with Article 11 of UNFSA.

⁴¹⁰ ICCAT, *ibid.*

⁴¹¹ Butterworth and Penney, *supra* note 15, at 181.

In the case of the CCSBT, the review committee noted that the allocation process was unsatisfactory until 2006, and now satisfactory and with no need to improve. However, the CCSBT has just recently implemented the Memorandum of Understanding on allocation of fishing opportunities of 1994. In addition, Japan has a considerable, but temporary, reduction of its TAC due to over-catches prior to 2006. In addition, some cooperating non-contracting parties have expressed dissatisfaction with their allocations.⁴¹² Thus, it seems apparent that allocation is not settled, and is probably going to become more intense in the future.

In the case of NEAFC, the panel noted the secondary role that NEAFC mostly plays in allocation of fishing opportunities in the NEAFC area, and concludes that its highest priority should be to encourage consistency and certainty into this process across all fisheries in the Convention Area. Thus, it “urged the organization to make every effort to resolve outstanding allocation issues”, paving “the way for a change in NEAFC’s approach to management, moving away from management driven, bi annual (sic), *ad hoc* negotiations amongst Coastal States, towards management systems driven by transparent objectives and implementation processes.”⁴¹³

CCAMLR’s case is different in that the organization has not adopted national quotas as management measure. As a consequence, the allocation of fishing opportunities was not included in the terms of reference approved for the review. The panel, nevertheless, expressed concerned about the lack of effort and catch control and incentives for overinvestment and overcapacity of the existing competitive catch management model, in particular in light of increasing interest in krill and finfish fisheries in the Convention Area.⁴¹⁴ For this reason, it recommends to the Commission the establishment of a small group of experts to explore and report on the advantages and disadvantages (including cost and feasibility) of approaches and actions to prevent or eliminate excess fishing capacity, including a “system of annual tradable units of quota

⁴¹² CCSBT, Report of the Extended Commission of the Sixteenth Annual Meeting of the Commission, 20 - 23 October 2009, *supra* note 312, agenda item 13 at 6-8.

⁴¹³ NEAFC, Performance Review Report, *supra* note 81, at viii.

⁴¹⁴ CCAMLR, Performance Review Report, *supra* note 81, 60-2.

with a very clear understanding that they bestow no ongoing rights and will be reallocated for each successive fishing period.”⁴¹⁵

The different performance reviews demonstrate that the global and regional regulatory framework for allocation of TACs, based in allocation criteria and non-binding guidelines, is an insufficient basis for the resolution of the conflicts of interests inherent to this conservation and management measure. The search for an adequate framework, thus, continues.

⁴¹⁵ CCAMLR, Performance Review Report, *supra* note 81, at 61-2.

Chapter 4. Allocating to Future Generations: Intergenerational Equity in International Fisheries Law

The fact that a resource is scarce, as is often the case with fisheries, implies that there is a need to make choices for their utilization: not all demands can be satisfied. One of those choices relates to the inter-temporal utilization of the resource: what proportion of the resource should be allocated to current use or consumption, and what proportion should be saved to be used in future periods. This is, as well, an allocation decision.

This allocation decision raises questions of equity between generations: the decisions made today affect the possibilities, options and even livelihood of generations not yet born.⁴¹⁶ It is possible to conceive a model where present generations do not consume anything, saving all the resources for the future (preservationist model), or a model where present generations consume all what they want today, ignoring the needs of future generations (opulent model).⁴¹⁷ Between these two extremes, there is space for trade-offs between the needs and preferences of present and future generations. The theory of intergenerational equity addresses the fairness of those trades-offs.

This chapter analyzes the linkages between TAC and allocation and intergenerational equity. For this purpose, the first section provides a general overview of the theory of intergenerational equity and its critiques, and the extent to which the theory has been accepted in international environmental law. The second section addresses intergenerational equity in international fisheries law in particular. The third section presents the theoretical and practical relationships between intergenerational equity and TAC and allocation, which are then illustrated through several case studies in section

⁴¹⁶ The unsustainable use of natural and cultural resources raises, according to Brown Weiss, three kinds of equity problems: a) depletion of resources, which narrows the range of available natural resources for future generations; b) degradation of environmental quality, which imposes serious health effects and welfare costs on future generations, causes less flexibility in using their natural resources, and leads to depletion of plant and animal life; and c) discriminatory access and use (Edith Brown Weiss, *In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity* (Dobbs Ferry, NY: Transnational Publishers, Tokyo, Japan: United Nations University, 1989), at 6-15).

⁴¹⁷ According to Brown Weiss, the opulent model is based either on the uncertainty of the existence of future generations, or in the belief that maximizing the wealth today is the best way to maximize wealth for future generations. In this latter case, Brown Weiss argue that the model overlooks the long-term and irreversible degradations of the planet that may be generated, and the moral obligation to conserve the earth for the sake of the earth system and not the human community (*ibid*, at 23).

four. Finally, the fifth section addresses some proposals to further the needs of future generations in the international fisheries regime.

Section 1. Intergenerational Equity and its Recognition in International Environmental Law

The theory of intergenerational equity addresses the allocation of natural resources, their benefits and the burdens of their conservation, at an inter-temporal scale, i.e., between present and future generations.⁴¹⁸ Its most comprehensive formulation has been presented by Edith Brown Weiss in the book *In Fairness to Future Generations*.⁴¹⁹ In this work, Brown Weiss postulates that

[w]e, as species, hold the natural and cultural environment of our planet in common both with other members of the present generation and with other generations, past and future. At any given time, each generation is both a custodian or trustee of the planet for future generations and a beneficiary of its fruits.⁴²⁰

The theory of intergenerational equity is based on a partnership among all generations,⁴²¹ a partnership that has the purpose of sustaining the welfare and well-being of all generations.⁴²² This includes: to sustain the life-support system of the planet; to sustain the ecological processes, environmental conditions and cultural resources necessary for the survival of the human species; and to sustain a healthy and decent human environment.⁴²³ Thus, every generation has the obligation to pass the planet on in

⁴¹⁸ Lawrence B. Solum identifies three meanings of generations: a demographic cohort generation; a lineal descent generation; and the unborn future generation (Lawrence B. Solum, "To Our Children's Children's Children: The Problems of Intergenerational Ethics" (2001-2002) 35 Loy. L.A. L. Rev. 163). In general, the term is used in international environmental law to refer to the "relation between all those currently living, and generations yet unborn, indefinitely into the future" (Lynda M. Collins, Revisiting the Doctrine of Intergenerational Equity in Global Environmental Governance" (2007) 30 Dal. L. J. 79, at 102). Kiss notes, however, that conceptually there is no distinct generations but a constant flow, since every second hundreds of human beings are born and die and more than 5 billion people of all ages co-exist (Alexandre Kiss, "The Rights and Interests of Future Generations and the Precautionary Principle" in David Freestone and Ellen Hey, ed., *The Precautionary Principle and International Law: The Challenge of Implementation* (The Hague; London; Boston: Kluwer Law International, 1996) 19, at 21.

⁴¹⁹ Brown Weiss, *supra* note 416.

⁴²⁰ *Ibid.*, at 17.

⁴²¹ *Ibid.*, at 23.

⁴²² *Ibid.*, at 23.

⁴²³ *Ibid.*, at 23.

no worse condition than it received it and provide equitable access to its resources and benefits.⁴²⁴

To fulfill these purposes, Brown Weiss derives three basic principles of intergenerational equity: a) the principle of conservation of options; b) the principle of conservation of quality; and c) the principle of conservation of access.⁴²⁵ According to the principle of conservation of options, each generation should be required to conserve the diversity of the natural and cultural resource base, so that it does not unduly restrict the options available to future generations.⁴²⁶ According to the principle of conservation of quality, each generation should be required to maintain the quality of the planet so that it is passed on in no worse condition than the present generation received it.⁴²⁷ According to the principle of conservation of access, each generation should provide its members with equitable right of access to the legacy from past generations and should conserve this access for future generations.⁴²⁸

These three principles are the basis of certain planetary obligations and a set of planetary rights that each generation holds, as a class. Planetary obligations are: a) the duty to take positive steps to conserve resources; b) the duty to ensure equitable access to use and benefits of these resources; c) the duty to prevent or mitigate adverse impacts on the resources or on environmental quality; d) the duty to minimize disasters and provide emergency assistance; and e) the duty to bear the costs of damage to these resources or the environmental quality.⁴²⁹ The planetary rights of each generation are the obverse of the planetary obligations. They are identified as: a) the right to receive the planet in no worse condition than that of the previous generations; b) the right to inherit comparable diversity in the natural and cultural resources base; and c) the right to have equitable access to the use and benefits of the legacy.⁴³⁰

The duty to conserve resources applies to both renewable and nonrenewable natural resources, as well as cultural resources. In the case of renewable resources (such as fish stocks), the essence of the duty is to develop and use them on a sustainable basis –

⁴²⁴ *Ibid*, at 24.

⁴²⁵ *Ibid* at 38.

⁴²⁶ *Ibid*, at 38.

⁴²⁷ *Ibid*, at 38.

⁴²⁸ *Ibid*, at 38.

⁴²⁹ *Ibid*, at 50.

⁴³⁰ *Ibid*, at 95.

i.e., they can be used and developed for the benefit of the present generation in any manner consistent with their renewal and hence availability for future generations.⁴³¹

The comprehensive theory of intergenerational equity exposed by Brown Weiss has been subject to certain critiques. A first critique relates to the human rights model adopted to preserve the global environment – a rights-based approach.⁴³² This model presents two flaws, according to the critics. The first one is that future generations, persons not yet born, cannot be holders of rights.⁴³³ Furthermore, it has been argued that future generations cannot have rights because any action to protect the environment will inevitably affect the composition of the next generations – creating the paradoxical result that protecting the environment for future generations will harm individuals who, because of those actions, will never come into existence.⁴³⁴ Weiss, in turn, argues that the planetary rights are generational rights possessed by groups in relation to other generations, and does not follow the traditional conceptual framework of rights as rights of identifiable individuals.⁴³⁵

Another part of this critique relates to the uncertainty of future generation's preferences. Present generations "cannot know the numbers and kinds of generations that will exist, their values, interests or technologies, and that as a consequence decision-making becomes less reliable the further it is extended into the future."⁴³⁶ Some argue some kind of "intertemporal imperialism" – by anticipating the needs of future generations, the current generation is actually imposing its values on the future and restricting rather than promoting future generations' liberty.⁴³⁷ Redgwell responds to this critique arguing that this is a matter of degree. "Certain assumptions can be made; and the model is not a static one. Later generations may alter assumptions about the preferences of future generations as human society evolves and changes."⁴³⁸

⁴³¹ *Ibid*, at 51.

⁴³² Catherine Redgwell, *International trusts and environmental protection* (Manchester, UK: Manchester University Press, 1999) at 95-97.

⁴³³ *Ibid*, at 81.

⁴³⁴ Anthony D'Amato, "Do We Owe a Duty to Future Generations to Preserve the Global Environment?" (1990) 84 Am. J. Int'l L. 190, at 190-194.

⁴³⁵ Edith Brown Weiss, "Our Rights and Obligations to Future Generations for the Environment (1990) 84 Am. J. Int'l L. 198, at 205.

⁴³⁶ Supanich, cited by Redgwell, *supra* note 432, at 96.

⁴³⁷ Mayeda, cited by Collins, *supra* note 418, at 112.

⁴³⁸ Redgwell, *supra* note 432, at 97.

A second critique is the anthropocentrism of the right-based approach. D'Amato, among other authors, contends that there is a duty to living creatures in the environment *per se*, not as a consequence of an obligation owed to future generations of humans. In other words, this position maintains that wildlife has an intrinsic value independent from its utility to future generations of human being.⁴³⁹

Perhaps the most relevant critique from a legal perspective relates to the nature of the proposed planetary obligations. The theory of intergenerational equity is argued to exert binding force only on the moral plane, with the necessity for positive law to translate planetary duties into normative obligations. Brown Weiss acknowledges that “the translation of the expressed concern for future generations into normative obligations that relate the present to the future to protect future generations still needs to be done.”⁴⁴⁰

The idea that current generations have some duties and responsibilities in the exploitation of natural resources towards the future generations was recognized as early as 1893.⁴⁴¹ Today, the notion that humans have a responsibility for the future is widely considered incontrovertible.⁴⁴² There is a general consensus regarding the need to take the interests of future generations into account.⁴⁴³

⁴³⁹ D'Amato, *supra* note 434; Redgwell, *ibid*, at 97-99. Brown Weiss seems to recognize the existence of an obligation to conserve the environment due not to present or future generations of the human community, but to the other species that share the natural system (See: Brown Weiss, *supra* note 416, at 23).

⁴⁴⁰ Brown Weiss, *ibid*, at 30. She also writes that “as custodians of this planet, we have certain moral obligations to future generations which we can transform into legally enforceable norms” (*ibid*, at 21).

⁴⁴¹ According to the Opinion of Mr. Justice Harlan at the Conference of the Bering Sea Tribunal of Arbitration, during the proceedings of the 1893 Fur Seal Arbitration, evidence was presented on the detrimental effects of high seas pelagic catch of fur seal for its conservation. One of those evidences was the testimony of Professor Blanchard, who stated: “Now, the irremediable destruction of an eminently useful animal species, such as this one, is, to speak plainly, a *crime* of which we are rendering ourselves guilty towards our descendants. To satisfy our instincts of cupidity we voluntarily exhaust, and that forever, a source of wealth, which properly regulated, ought, on the contrary, to contribute to the prosperity of our own generation and of those which will succeed it” (Opinion of Mr. Justice Harlan at the Conference in Paris of the Bering Sea Tribunal of Arbitration, in Bering Sea Tribunal of Arbitration, *Proceedings of the Tribunal of Arbitration Convened at Paris under the Treaty between the United States of America and Great Britain, concluded at Washington for the determination of questions between the two governments concerning the jurisdictional rights of the united states in the waters of Bering Sea*, Vol. 1 (Washington: Government Printing Office, 1895), at 127).

⁴⁴² Patricia Birnie, Alan Boyle, and Catherine Redgwell, *International Law and the Environment*, 3d ed., (Oxford: Oxford University Press, 1999), at 121.

⁴⁴³ Redgwell, *supra* note 432, at 115.

However, the notion that the theory of intergenerational equity may have normative status in international law has been viewed with more skepticism. Lowe has stated that “the principle of inter-generational equity is, in normative terms, a chimera.”⁴⁴⁴ Boyle, in turn, categorized the doctrine as “misplaced utopianism,”⁴⁴⁵ rejecting the possibility of international law extending to future generations as wildly unrealistic.⁴⁴⁶ Birnie, Boyle and Redgwell, in turn, acknowledge that

(...) although the idea of moral responsibility to future generations is well established in the writings of Rawls and other philosophers, it is less easy to translate into law, or, more specifically, into rights for future indeterminate generations.⁴⁴⁷

Despite this skepticism, notions of intergenerational equity or consideration of the needs of future generations have been widely reflected in instruments of international law, both binding and non-binding. Early examples can be found already in 1946.⁴⁴⁸ However, it was the 1972 Stockholm Conference on the Human Environment that put intergenerational equity on the agenda of international environmental law and policy. Both the preamble and several principles of the Declaration of the United Nations Conference on the Human Environment adopted during the Stockholm Conference include explicit references to the need to defend and improve the human environment for present and future generations.⁴⁴⁹

⁴⁴⁴ Vaughn Lowe “Sustainable Development and Unsustainable Arguments” in Alan E. Boyle and David Freestone (eds.), *International Law and Sustainable Development: Past Achievements and Future Challenges* (New York: Oxford University Press, 1999) 19, at 27.

⁴⁴⁵ A. E. Boyle, Book Review of *In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity* by Edith Brown Weiss, (1991) 40 I.C.L.Q. 230, at 230. He adds: “It is already an intractable task to reconcile the environmental interests of those here and now in a weak international legal and political system, without also embracing the interests of future generations” (*ibid*).

⁴⁴⁶ *Ibid*.

⁴⁴⁷ Birnie, Boyle and Redgwell, *supra* note 442, at 120.

⁴⁴⁸ *International Convention for the Regulation of Whaling*, 2 December 1946, 161 UNTS 72 (entered into force on 10 November 1948). The first paragraph of the Convention states: “Recognizing the interest of the nations of the world in safeguarding for future generations the great natural resources represented by the whale stocks.”

⁴⁴⁹ See: 1972 United Nations Declaration on Human Environment, 16 June 1972, U.N. Doc. A/Conf.48/14/Rev. 1(1973); 11 ILM 1416 (1972), at preamble paragraph 6: “(...) To defend and improve the human environment for present and future generations has become an imperative goal for mankind - a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of worldwide economic and social development”; principle 1: “Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations (...)”; and principle 2: “The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the

Further explicit references to future generations were included in the non-binding 1982 World Charter of Nature,⁴⁵⁰ and in the 1987 Brundtland Report.⁴⁵¹ The latter report includes the interests of future generations in its definition of sustainable development: “the development that meets the needs of present generations without compromising the ability of future generations to meet their needs.”⁴⁵² Intergenerational equity is a fundamental principle of the overarching concept of sustainable development.⁴⁵³ Indeed, some authors consider that it is the very foundation of this concept.⁴⁵⁴

The 1992 Rio Declaration encompasses intergenerational equity in principle 3, linking it to the right to development: “the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations”.⁴⁵⁵ The 2002 Johannesburg Declaration reaffirms the commitment to sustainable development, with explicit recognition of the interests of our children and the

benefit of present and future generations through careful planning or management, as appropriate.” See also principles 3, 5, and 11.

⁴⁵⁰ The preamble of the World Charter for Nature, in its para. 5, states: “Reaffirming that man must acquire the knowledge to maintain and enhance his ability to use natural resources in a manner which ensures the preservation of the species and ecosystems for the benefit of present and future generations.” (*World Charter for Nature*, adopted by the UN General Assembly at its 48th plenary meeting on 28 October 1982, A/RES/37/7, online: UN <<http://www.un.org/en/documents>>).

⁴⁵¹ *Report of the World Commission on Environment and Development: Our Common Future*, transmitted to the General Assembly as an Annex to document A/42/427 - Development and International Co-operation: Environment, also in G. Brundtland, (ed.), *Our common future: The World Commission on Environment and Development* (Oxford: Oxford University Press, 1987) [hereafter Brundtland Report].

⁴⁵² Brundtland Report, *ibid*, Chapter 2 paragraph 1.

⁴⁵³ Sands identifies four elements of the legal concept of sustainable development: the principle of intergenerational equity, the principle of sustainable use, the principle of equitable use (or intra-generational equity), and the principle of integration (Philippe Sands, *Principles of International Environmental Law*, 2d ed. (Cambridge: Cambridge University Press, 2003) at 253). Schrijver, in turn, considers the seven principles of sustainable development included in the 2002 ILA New Delhi Declaration: the duty of States to ensure sustainable use of natural resources, the principle of equity and the eradication of poverty (which includes both inter and intra-generational equity), the principle of common but differentiated responsibility, the precautionary principle and environmental impact assessment, public participation, the principle of good governance, and the principle of integration and interrelationship (Nico Schrijver, *The Evolution of Sustainable Development in International Law: Inception, Meaning and Status* (Leiden; Boston: Martinus Nijhoff Publishers, 2008) at 171-207).

⁴⁵⁴ See: Graham Mayeda, “Where should Johannesburg take us? Ethical and Legal Approaches to Sustainable Development in the Context of International Environmental Law” (2004) 15 Colo. J. Envtl. L. & Pol’y 29, at 30, citing McCloskey and Handl. Indeed, this approach has also been criticized as giving preference to the needs of future generations, even above the needs of present generations. The same criticism has been formulated to Brown Weiss theory of intergenerational equity, where intra-generational equity is considered a sub-element – and even a subordinate element - of the former.

⁴⁵⁵ United Nations, *Report of the United Nations Conference on Environment and Development*, CEDOR, Rio de Janeiro, 3–14 June 1992, A/CONF.151./26/Rev.1 (Vol. I), Rio Declaration on Environment and Development, principle 3.

long-term perspectives required by sustainability.⁴⁵⁶ Most of the non-binding instruments adopted since include a reference to future generations, either independently or as a component of sustainable development.⁴⁵⁷

References to a notion of intergenerational equity have also been included in the preamble section of various Conventions and treaties. Two early examples, roughly contemporaneous with the Stockholm Declaration, can be found in the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora,⁴⁵⁸ and the 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage.⁴⁵⁹ Most of the references can be found, however, in Conventions and agreements signed in the 1990s, after the conclusion of the United Nations Rio Conference on Environment and Development. The 1992 Convention on the Transboundary Effects of Industrial Accidents,⁴⁶⁰ and the 1994 Convention to Combat Desertification in those Countries Experiencing Drought and/or Desertification, Particularly in Africa,⁴⁶¹ acknowledge in their preambles the needs of future generations. The Convention on Biological Diversity

⁴⁵⁶ *Johannesburg Declaration on Sustainable Development adopted by the 2002 World Summit on Sustainable Development*, online: UN Department of Economic and Social Affairs, Division for Sustainable Development <<http://www.un.org/esa/dsd/index.shtml>>, para. 1: “We, the representatives of the peoples of the world, assembled at the World Summit on Sustainable Development in Johannesburg, South Africa, from 2 to 4 September 2002, reaffirm our commitment to sustainable development.” See also: *ibid*, para. 3, 4, 16 and 26.

⁴⁵⁷ See, for example: *Johannesburg Principles on the Role of Law and Sustainable Development*, adopted at the Global Judges Symposium held in Johannesburg, South Africa, on 18-20 August 2002, para. 8, online: UNEP <<http://www.unep.org>>; *U.N. Millennium Declaration*, A/RES/55/2, adopted by the U.N. General Assembly at its 55th Plenary Meeting on 8 September 2000, para. 2 and 6, online: U.N. <<http://www.un.org/millennium>>.

⁴⁵⁸ *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (CITES), 3 March 1973, 993 UNTS 243, (entered into force 1 July 1975), paragraph 1 of the preamble: “Recognizing that wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the natural systems of the earth which must be protected for this and the generations to come.”

⁴⁵⁹ *Convention for the Protection of the World Cultural and Natural Heritage*, 16 November 1972, 1037 UNTS 151; 27 UST 37; 11 ILM 1358 (1972) (entered into force 15 December 1975), article 4: “Each State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage referred to in Articles 1 and 2 and situated on its territory, belongs primarily to that State.”

⁴⁶⁰ UNECE, *Convention on the Transboundary Effects of Industrial Accidents*, 18 March 1992, OJ L 326, EC Council Decision 98/685/EC (entered into force 19 April 2000), first paragraph of the preamble: “Mindful of the special importance, in the interest of present and future generations, of protecting human beings and the environment against the effects of industrial accidents”.

⁴⁶¹ *United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa*, 17 June 1994, 1954 UNTS 3; 33 ILM 1328 (1994) (entered into force 26 December 1996), prologue, last paragraph: “Determined to take appropriate action in combating desertification and mitigating the effects of drought for the benefit of present and future generations”.

(CBD) also recognizes the future generations in its preamble,⁴⁶² and in its definition of sustainable use.⁴⁶³ Furthermore, the Conference of the Parties of the CBD has recognized the ecosystem approach as the primary framework for action under the Convention and endorsed the application of the Malawi Principles for Ecosystem Approach.⁴⁶⁴ These principles explicitly recognize the inter-temporal dimension of conservation by requiring that the objectives for ecosystem management be set for the long term.⁴⁶⁵

In contrast, few treaties incorporate the interests of future generations in their substantive or operational provisions. One of few treaties that do is the United Nations Convention on Climate Change,⁴⁶⁶ which contains explicit references to future generations both in the preamble⁴⁶⁷ and in the normative section.⁴⁶⁸ However, the Convention does not develop the precise content of this responsibility. For this reason, Redgwell sees this provision only as a starting point in the process of defining obligations of the present generations “to absorb the costs of reducing the risk of global warming for future generations” and not a fully fledged normative provision.⁴⁶⁹

⁴⁶² *Convention on Biological Diversity*, 5 June 1992, 1760 UNTS 79; 31 ILM 818 (1992) (entered into force 20 December 1993)[hereafter CBD], preamble, last paragraph: “*Determined* to conserve and sustainable use biological diversity for the benefit of present and future generations.”

⁴⁶³ CBD, *ibid*, article 2: “*Sustainable use* means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.”

⁴⁶⁴ *Malawi Principles for Ecosystem Approach*, adopted at the Fifth Ordinary Meeting of the Conference of the Parties (COP) to the CBD, held in Nairobi, Kenya, 15 - 26 May 2000, CBD COP 5 Decision V/6, Section B, online: CBD <<http://www.cbd.int>>.

⁴⁶⁵ *Ibid*, principle 8.

⁴⁶⁶ *United Nations Framework Convention on Climate Change*, May 9 1992, 31 ILM 849 (1992) (entered into force on 21 March 1994).

⁴⁶⁷ *Ibid*, preamble, paragraph 11: “Recalling the provisions of General Assembly resolution 44/228 of 22 December 1989 on the United Nations Conference on Environment and Development, and resolutions 43/53 of 6 December 1988, 44/207 of 22 December 1989, 45/212 of 21 December 1990 and 46/169 of 19 December 1991 on protection of global climate for present and future generations of mankind”; and last paragraph: “Determined to protect the climate system for present and future generations”.

⁴⁶⁸ *Ibid*, article 3(1): “The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.” Another international Convention that makes a reference to future generations in its operational provisions is the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 17 March 1992, 1936 UNTS 269, 31 ILM 1312 (1992) (entered into force 6 October 1996) [hereafter 1992 Helsinki Water Convention]. In article 2 on general provisions, this Convention establishes that, in taking measures to prevent, control and reduce transboundary impacts, Parties shall be guided by the following principles: “Water resources shall be managed so that the needs of the present generation are met without compromising the ability of future generations to meet their own needs.”

⁴⁶⁹ Redgwell, *supra* note 432, at 118.

The international jurisprudence has had a few opportunities to address intergenerational equity, its status in international law, and its legal implications. The most prominent cases were the two Nuclear tests cases,⁴⁷⁰ and the Nuclear Advisory Opinion.⁴⁷¹ In the two Nuclear tests cases, the Court did not address the issue. The Advisory Opinion, on the contrary, made several references to generations yet unborn. However, it did not rely on a principle of intergenerational equity or an explicit recognition of the rights of future generations in rendering its opinion.⁴⁷² The missed opportunities to address the principle and its legal status have been criticized and lamented both outside⁴⁷³ and inside the International Court of Justice.⁴⁷⁴

Intergenerational equity has had, undoubtedly, ample recognition in international law instruments. However, this recognition lies mainly in non-binding instruments or in the preambles of treaties. Its practical implications are less than clear. Sands notes that, although the interests of future generations were profusely included in the UNCED instruments, “there was little, if any, discussion in the negotiations which indicates what practical consequences might flow from a recognition of the needs of future generations.”⁴⁷⁵

For these reasons, most authors believe that “the principles of intergenerational equity “have not yet achieved the status of binding norms under international law.”⁴⁷⁶

⁴⁷⁰ *Nuclear Tests (Australia v. France)*, [1974] I.C.J. Rep. 253 and *Nuclear Tests (New Zealand v. France)*, [1974] I.C.J. Rep. 457; and *Request for an Examination of the situation in Accordance with Paragraph 63 of the Court’s Judgment of 20 December 1974 in the Nuclear Tests Case (New Zealand v. France)* [1995] I.C.J. Rep. 288.

⁴⁷¹ *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion*, [1996] I.C.J. Rep. 226. Brown Weiss has noted that “[t]he Opinion on the use of the nuclear weapons raises, as no other cases except the 1995 Nuclear Test cases have raised, the issue of the effects of our actions today upon future generations” (Edith Brown Weiss, “Opening the Door to the Environment and to Future Generations” in Laurence Boisson de Chazournes and Philippe Sands (eds.), *International Law, the International Court of Justice and Nuclear Weapons* (Cambridge, UK: Cambridge University Press, 1999) 338, at 349.

⁴⁷² *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion*, *ibid*, para. 29 at 241.

⁴⁷³ See: Brown-Weiss, *supra* note 471, at 349–350.

⁴⁷⁴ See: Weeramantry, dissenting opinion in the *Request for an Examination of the situation in Accordance with Paragraph 63 of the Court’s Judgment of 20 December 1974 in the Nuclear Tests Case (New Zealand v. France)*, *supra* note 470, at 362. He states that “the Court has not availed itself of the opportunity to enquire more fully into this matter and of making a contribution to some of the seminal principles of the evolving corpus of international environmental law.” (Weeramantry, *ibid*).

⁴⁷⁵ Philippe Sands, “International Law in the Field of Sustainable Development” (1994) 65 Brit. Y.B. Int’l L. 303, at 342.

⁴⁷⁶ Redgwell, *supra* note 432, at 115. French argues that “[t]he language so far utilized in international legal and policy texts would from the outset, seem to suggest that whatever the legal implications of intergenerational equity may be, States have not yet accepted the argument, strongly advocated by

Despite this majority opinion, it should be noted that prominent scholars are of the opinion that intergenerational equity is a principle of international law. One of those proponents is Judge Weeramantry. In his dissenting opinion in the *Request for an Examination of the situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests Case (New Zealand v. France)*, he stated:

(...) the rights of the future generations have passed the stage when they were merely an embryonic right struggling for recognition. They have woven themselves into international law through major treaties, through juristic opinion and through general principles of law recognized by civilized nations.⁴⁷⁷

One of the sources of the rights of future generations cited by Judge Weeramantry is the doctrine of intergenerational equity.⁴⁷⁸

The fact that intergenerational equity is, generally, not considered a binding norm under international law does not mean that it does not have any legal implications. Redgwell notes a “creeping intergenerationalism” that is manifested in several ways. First, the wide recognition of the interests of future generations in non-binding international instruments and pre-ambular texts of international treaties allows a conclusion that some general notion of intergenerational equity has likely emerged as a guiding principle in international environmental law. This guiding principle performs the role of a source of inspiration for the development and adoption of binding rules at both national and international levels and as the basis for the development of new international customary law.⁴⁷⁹ It can also be considered as a guiding principle in the application of substantive norms, including existing treaty obligations, under international law.⁴⁸⁰

Secondly, it has been noted that there are several substantive principles of international law that have an inter-temporal dimension and are, thus, important for the doctrine of intergenerational equity. Redgwell cites, as examples of such substantive principles, the principle of sustainable development, the common heritage of humankind,

Professor Brown Weiss, that the present generation has a *legal* relationship with future generations... In other words, while the interests of future generations has unquestionable symbolism, and one that underpins other concepts such as the principle of sustainable use and the precautionary approach, its own normative status is clearly questionable.” (Duncan French, *International Law and Policy of Sustainable Development* (Manchester, UK: Manchester University Press; New York: Juris, 2005) at 61).

⁴⁷⁷ Weeramantry, dissenting opinion in *Legality of the Threat or Use of Nuclear Weapons*, *supra* note 471, at 455.

⁴⁷⁸ *Ibid.*

⁴⁷⁹ Redgwell, *supra* note 432, at 120.

⁴⁸⁰ *Ibid.*, at 123.

the principle of custodianship or stewardship, the precautionary principle, and the principle of common but differentiated responsibility.⁴⁸¹ In light of the Malawi Principles on Ecosystem Approach, this latter principle can be included among them.

Finally, it must be mentioned that many of the “planetary obligations” are already included as principles of international law, and as normative obligations for States. In light of its relevance to this thesis, it is worth noting, in particular, the duty to conserve resources. While it is arguable whether a general duty to conserve resources exists in international law,⁴⁸² many treaties (including fishery treaties) contain an explicit obligation to conserve natural resources and give this obligation certain normative content. These existing normative obligations may acquire new emphases and focuses if interpreted in the light of a duty to protect the environment for the benefit of future generations.

Section 2. Intergenerational Equity in International Fisheries Law

Following the conclusions of the previous sections, an analysis of whether intergenerational equity is reflected in international fisheries law requires determining: whether intergenerational equity, or the concern for future generations, is explicitly recognized in binding and non-binding instruments; and whether planetary obligations or substantive principles with inter-temporal dimensions are included as normative obligations. These two aspects will be analyzed in turn.

Intergenerational Equity as Reflected in International Fisheries Instruments

The explicit recognition of the needs and interests of future generations is remarkably absent in international fisheries instruments, both binding and non-binding. The first explicit reference to the interests of future generations can be found in the 1992 Cancun Declaration on Responsible Fisheries, which declares that States should adopt effective fisheries planning and management to ensure supply of fish products to feed

⁴⁸¹ *Ibid*, at 127. Redgwell notes a process of “creeping intergenerationalisation” in international environmental law, which is represented: a) by the spillover effect of the preambular recognition of the principle in the interpretation and application of substantive provisions; and b) on the inter-temporal dimension of several substantive principles of international law (*ibid*, at 126).

⁴⁸² *Ibid*, at 124.

present and future populations.⁴⁸³ A few years later, the FAO Code of Conduct⁴⁸⁴ included the needs of future generations in the definition of the objective of fisheries management. Article 6.2 states:

Fisheries management should promote the maintenance of the quality, diversity and availability of fishery resources in sufficient quantities for present and future generations in the context of food security, poverty alleviation and sustainable development.

In line with this objective, article 7.1.1 states that

Conservation and management measures, whether at local, national, subregional or regional levels, should be based on the best scientific evidence available and be designed to ensure the long-term sustainability of fishery resources at levels which promote the objective of their optimum utilization and maintain their availability for present and future generations; short-term considerations should not compromise these objectives.⁴⁸⁵

Successive non-binding international instruments on fisheries do not include references to the needs of the future generations. However, most of them acknowledge and reaffirm the principles of the FAO Code of Conduct, thus implicitly acknowledging that conservation measures shall ensure quality, quantity, diversity and availability of fishery resources for both present and future generations.⁴⁸⁶

⁴⁸³ 1992 Cancun Declaration on Responsible Fisheries, at para. 1, reads: “States, with a view to ensuring supply of fish products to feed present and future populations, should adopt effective fisheries planning and management standards which, within the context of sustainable development, will promote the maintenance of the quantity, quality, diversity and economic availability of fisheries resources” (FAO, *Declaration on Responsible Fisheries*, adopted by the International Conference on Responsible Fishing held in Cancun, Mexico, 6-8 May 1992, Document COFI/93/Inf, online: FAO <<http://www.fao.org/documents>>).

⁴⁸⁴ FAO Code of Conduct, *supra* note 25. Further references were made during the preparatory work of the Code. For example, the 1995 Rome Consensus on World Fisheries also acknowledges the interests of future generations, albeit rather incidentally. The consensus states: “In the discussion, the Ministerial Meeting noted the FAO analysis which indicates that the problems of overfishing in general, and overcapacity of industrial fishing fleets in particular, threaten the sustainability of the world’s fisheries resources for present and future generations” (FAO, *Rome Consensus on World Fisheries*, *supra* note 75, para. 5).

⁴⁸⁵ The introduction to the FAO Code of Conduct, *ibid*, also makes references to future generations: “Fisheries, including aquaculture, provide a vital source of food, employment, recreation, trade and economic well-being for people throughout the world, both for present and future generations and should therefore be conducted in a responsible manner.” Finally, paragraph 1 of the FAO Conference Resolution (Annex 2 of the FAO Code of to Conduct, *ibid*) reads: “Recognizing the vital role of fisheries in world food security, and economic and social development, as well as the need to ensure the sustainability of the living aquatic resources and their environment for present and future generations”.

⁴⁸⁶ See, for example: Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem, *supra* note 25, at para. 6; 2005 Rome Declaration on Illegal, Unreported and Unregulated Fishing, adopted by the FAO Ministerial Meeting on Fisheries, Rome, 12 March 2005, online: FAO <<http://www.fao.org>>, at para. 5 (“Reaffirming our commitment to the principles and standards contained in the FAO Code of Conduct for

International Conventions and regional agreements do not explicitly recognize the interests of future generations in their normative provisions.⁴⁸⁷ Furthermore, and contrary to common practice in international environmental law, global Conventions and most regional agreements do not recognize the interests of future generations in the preamble of their texts. The only exception thereto is the WCPFC Convention, which in the first paragraph of its preamble states that the contracting parties are

[d]etermined to ensure the long-term conservation and sustainable use, in particular for human food consumption, of highly migratory fish stocks in the western and central Pacific Ocean for present and future generations.⁴⁸⁸

“Planetary Obligations” in International Fisheries Law

As in the case of environmental law in general, the fact that intergenerational equity as such is not generally mentioned either in binding or non-binding fisheries instruments does not preclude the existence of certain obligations or principles with an inter-temporal dimension that are components of the theory of intergenerational equity. Three are of particular interest in the case of fisheries: the obligation of conservation, the precautionary approach, and the ecosystem approach to fisheries.

It has already been noted that the planetary duty to conserve resources implies, in the case of renewable resources, the obligation to exploit them on a sustainable basis,⁴⁸⁹ i.e. an exploitation consistent with their renewal and hence availability for future generations.⁴⁹⁰ It is worth adding that sustainable exploitation is considered necessary for maintaining economic growth, but this necessity is reinforced by concerns for justice among generations.⁴⁹¹

Responsible Fisheries”). The 2005 St. John’s Ministerial Declaration reiterates the “commitment to responsible fisheries” (2005 St. John’s Ministerial Declaration, *supra* note 269, at para. 5).

⁴⁸⁷ It should be noted that during the negotiation process of UNFSA, Sweden proposed the inclusion of the principle of conservation and management compatible with sustainable use, which was stated as: “Conservation and management of straddling fish stocks and highly migratory fish stocks should be compatible with sustainable use and to that end promote the maintenance of the quantity, quality, diversity and availability of fisheries resources for present and future generations” (“Elements of a Draft Instrument on Conservation and Management of Straddling Fish Stocks and Highly Migratory Stocks Compatible with Sustainable Development”, submitted by the delegation of Sweden, 16 March 1994, A/CONF.164/L.39, in Lévy and Schram, *supra* note 258, at 481). See also: Orrego Vicuña, *supra* note 126, at 152.

⁴⁸⁸ WCPFC Convention, *supra* note 24, preamble, para. 1.

⁴⁸⁹ Brown Weiss, *supra* note 416, at 51 and 217.

⁴⁹⁰ *Ibid.*, at 51.

⁴⁹¹ *Ibid.*, at 217.

The duty to conserve and ensure sustainable use of marine living resources in the high seas has been considered since the early codifications of international law of the high seas. The 1958 *Convention on Fishing and Conservation of Living Resources of the High Seas* defined the expression “conservation of the living resources of the high seas” as the “aggregate of the measures rendering possible the optimum sustainable yield from those resources so as to secure a maximum supply of food and other marine products.”⁴⁹² The 1958 Convention reflected the objective of maximum sustainable yield for fisheries management, defined as “making possible the maximum production of food from the sea on a sustained basis year after year.”⁴⁹³ In this early formulation, thus, conservation was considered mainly as a means to maintain economic growth.

The LOSC did not define the concept of conservation, although several provisions refer to the conservation of living marine resources. It has been pointed out that the LOSC only provides for conservation objectives.⁴⁹⁴ Although this may seem as a step backwards in the definition of the obligations of States, some authors consider it recognition of the complexity that conservation of living marine resources had reached.⁴⁹⁵ Furthermore, the qualification of the objectives of conservation by environmental factors allows elaboration of the concept of conservation in light of new developments in international environmental law.

Those new developments were readily identifiable after the UNCED conference. The ecosystem approach, the precautionary approach, intergenerational equity, and sustainable development, are elements that have been introduced in the interpretation of the legal obligation to conserve natural resources. This wider and more comprehensive concept of conservation is reflected in the definition provided by the World Commission on the Environment and Development, which considers conservation as the

the management of human use of a natural resource or the environment in such a manner that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future

⁴⁹² *Convention on Fishing and Conservation of Living Resources of the High Seas*, 29 April 1958, 17 UST 138; 559 UNTS 285 (entered into force 20 March 1966), article 2.

⁴⁹³ Carmel Finley, “The Social Construction of Fishing, 1949” (2009) 14 *Ecology and Society* 6, [online] URL: <www.ecologyandsociety.org/vol14/iss1/art6>, citing Chapman. The concept of maximum sustainable yield faced criticisms. In particular, it was observed that excess harvesting capacity would develop under an MSY scenario (Finley, *ibid*).

⁴⁹⁴ Birnie, Boyle and Redgwell, *supra* note 442, at 589.

⁴⁹⁵ Orrego Vicuña, *supra* note 126, at 77.

generations. It embraces the preservation, maintenance, sustainable utilization, restoration, and enhancement of a natural resource or the environment.⁴⁹⁶

It was consistent with these developments for the Cancun Declaration on Responsible Fisheries and the FAO Code of Conduct for Responsible Fisheries to include the needs of future generations among the considerations to be taken into account while defining the objectives of fisheries planning and management.⁴⁹⁷

UNFSA, however, did not consider the needs of future generations explicitly. It did, nevertheless, strengthen the inter-temporal component of conservation in three ways. Firstly, UNFSA defined the objective of the agreement as “long-term conservation and sustainable use” of the fisheries stocks. Although the meaning of long-term is not defined, its explicit inclusion nevertheless reinforces the need to take into account the effects of fishing in the future.

Secondly, UNFSA considers the precautionary approach as one of the principles that need to be observed in the management of fisheries. Article 5 of UNFSA reads:

In order to conserve and manage straddling fish stocks and highly migratory fish stocks, coastal States and States fishing on the high seas shall, in giving effect to their duty to cooperate in accordance with the Convention: (c) apply the precautionary approach in accordance with article 6.

Article 6, in turn, reiterates that States shall apply the precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment, and provides detailed guidance on how the precautionary approach should be applied.⁴⁹⁸ In addition, Annex II of UNFSA provides further guidelines for the

⁴⁹⁶ Final Report of the Experts Group on Environmental Law on Legal Principles for Environmental Protection and Sustainable Development, June 1986, reprinted in R.D. Munro and J.G. Lammers (eds.), *Environmental Protection and Sustainable Development Legal Principles and Recommendations* (London: Graham & Trotman, 1986) 35, at 38.

⁴⁹⁷ See: *supra* note 484 and accompanying text.

⁴⁹⁸ The precautionary principle is a principle of international environmental law according to which “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation” (Rio Declaration, *supra* note 455, principle 15). See also, UNFSA, article 6(2): “The absence of adequate scientific information shall not be used as “a reason for postponing or failing to take conservation and management measures.” The legal status and the content of the precautionary principle are controversial. In international fisheries law, it has received explicit recognition as one of the principles that the States are in the obligation to apply while giving effect to their duty to cooperate for the conservation and sustainable use of international fish stocks. UNFSA, however, refers to it as precautionary approach, generally regarded as more flexible than, at least, the extreme versions of precautionary principle. The precautionary approach

application of precautionary target and limit reference points in conservation and management of straddling fish stocks and highly migratory fish stocks.

It has been recognized that the precautionary principle has a potential role in achieving a balance of interest between present and future generations,⁴⁹⁹ or at least a direct and positive bearing on the interests of future generations.⁵⁰⁰ A FAO information paper prepared for the UNFSA Conference and which served as the basis for the discussion on precautionary approach in fisheries management states that the precautionary approach seeks to

(...) promote a more equitable balance between the attention given to the needs of present and future generations. Such an approach would address the issue of inter-generational equity (as required by UNCED) and would tend towards reducing the cost of our present decisions for future generations.⁵⁰¹

The paper qualifies intergenerational equity as a “*moral obligation* placed on current generations to exploit the resources and enact conservation measures in such a manner as to preserve options for future generations” (emphasis added).⁵⁰² Other documents presented during the UNFSA Conference also acknowledged that the precautionary management of living marine resources is instrumental to the preservation of future use options.⁵⁰³

The concept of conservation adopted by UNFSA also includes concern for the ecosystem. Article 5 calls upon States to

(d) assess the impacts of fishing, other human activities and environmental factors on target stocks and species belonging to the same ecosystem or associated with or dependent upon the target stocks;

recognizes “that there is a diversity of ecological as well as socio-economic situations that require different strategies” (FAO, *The Precautionary Approach to Fisheries with Reference to Straddling Fish Stocks and Highly Migratory Fish Stocks*, A/CONF.164/INF/8, 26 January 1994, in Lévy and Schram, *supra* note 258, 555, para. 3 at 555).

⁴⁹⁹ Redgwell, *supra* note 432, at 138.

⁵⁰⁰ Redgwell states that “there is no doubt that the capacity of the precautionary principle to contribute to preventing action with a risk of irreversible harm has a direct (and positive) bearing on the interests of future generations” (*ibid*, at 140).

⁵⁰¹ FAO, *The Precautionary Approach to Fisheries with Reference to Straddling Fish Stocks and Highly Migratory Fish Stocks*, *supra* note 498, at 562.

⁵⁰² *Ibid*, at 557.

⁵⁰³ Position Statement Submitted by the USA, in letter dated 26 May 1993 from the Director, Office of Fisheries Affairs, Bureau of Oceans, International Environmental and Scientific Affairs, United States Department of State, Addressed to the Chairman of the Conference, 1 June 1993, A/CONF.164/L.3, in Lévy and Schram, *supra* note 258, at 115. It should be mentioned that an explicit reference to the needs of future generations in the normative provisions of UNFSA was proposed by Sweden. See: *supra* note 487.

(e) adopt, where necessary, conservation and management measures for species belonging to the same ecosystem or associated with or dependent upon the target stocks, with a view to maintaining or restoring populations of such species above levels at which their reproduction may become seriously threatened.⁵⁰⁴

Although the UNFSA does not provide more guidance on the implementation of a principle of conservation of the ecosystem, this vacuum has been at least partially filled by ongoing work by FAO and its member States. During the FAO Technical Consultation on Ecosystem-based fisheries Management held in Reykjavik, 16-19 September 2002, the parties adopted the Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem,⁵⁰⁵ which endorses the ecosystem approach to fisheries. The Reykjavik Declaration also requests FAO to develop technical guidelines for best practices in regard with introducing ecosystem considerations to fisheries management. The resulting guidelines state that

(...) the purpose of an ecosystem approach to fisheries is to plan, develop and manage fisheries in a manner that addresses the multiplicity of societal needs and desires, without jeopardizing the options for future generations to benefit from a full range of goods and services provided by marine ecosystems.⁵⁰⁶

In line with the Malawi Principles adopted by the Conference of the Parties of the CBD, the FAO guidelines explicitly recognize intergenerational equity as one of the principles relevant for ecosystem approach to fisheries management.⁵⁰⁷ It specifies that the principle requires that future generations be given the same opportunity as the present ones to decide on how to use resources.⁵⁰⁸

It can be concluded that, although the instruments on high seas fisheries management seldom make explicit references to intergenerational equity or the needs and aspirations of future generations, intergenerational considerations are implicit in three obligations of the legal framework: the obligation of States to ensure long-term conservation and sustainable use of living marine resources; the obligation of States to implement a precautionary approach in the adoption of conservation and management measures; and the obligation to implement an ecosystem approach to fisheries.

⁵⁰⁴ UNFSA, article 5 subparagraphs (d) and (e).

⁵⁰⁵ *Supra* note 25.

⁵⁰⁶ FAO, *supra* note 26, at 14.

⁵⁰⁷ *Ibid*, Annex 2 at 85.

⁵⁰⁸ *Ibid*, Annex 2 at 86.

The concept of conservation has evolved through time. This evolution has been marked partially by the advances in fisheries science and partially by the influence of the developments in international environmental law and international law in the field of sustainable development. As a result, the concept of conservation has been broadened and enriched. This evolution has emphasized the inter-temporal effects of fisheries management, and therefore, reinforced intergenerational considerations in international fisheries law.

This evolution can also be appreciated in regional fisheries agreements, and particularly in the reforms of their Convention texts. Early Conventions, such as 1949 IATTC Agreement, stated as an objective of the agreement and organizations maintaining the populations of fishes at a level which will permit maximum sustained catches year after year.⁵⁰⁹ NAFO, in turn, established as the objective of the organization the optimum utilization, rational management and conservation of the fishery resources in the Convention Area. The amendments to these Conventions emphasize the long-term objective of conservation efforts. The newly adopted Antigua Convention and the 2007 Amendment to the NAFO Convention both recognize, as objective of the organizations, ensure the long-term conservation and sustainable use of the fish stocks.⁵¹⁰ New agreements, such as SEAFO, South Pacific RFMO, WCFPC, also follow closely the wording of UNFSA in the definition of their objectives.

Furthermore, recent regional agreements have included in their texts, and as substantive provisions, the obligations to adopt the precautionary and ecosystem approaches to fisheries management.⁵¹¹ Both principles, as has been mentioned above, include in their modern formulation the long-term conservation and the requirement to take into account the needs of future generations.

⁵⁰⁹ IATTC 1949 Convention, *supra* note 86, preamble. See also: article II(5).

⁵¹⁰ IATTC Antigua Convention, article II.

⁵¹¹ WCFPC Convention, articles 5 subparagraph d) and 12(3) subparagraphs b) and c); The recently adopted SPRFMO Convention makes an explicit reference to “ecosystem approach” and considers it as a necessary means to achieve the objective of the Convention (SPRFMO Convention, preamble para. 9 and articles 2, 3(1) subparagraph b) and 3(2) subparagraph b).

Section 3. Allocating TAC: Balancing Short and Long Term Needs

The previous sections analyzed intergenerational equity in international environmental law and international fisheries law in particular. They support a conclusion that, despite the fact that future generations are seldom explicitly mentioned in global or regional instruments, the legal framework includes intergenerational considerations. They are included in the duty to conserve and manage fish stocks with the objective of achieving sustainable fisheries. Inter-temporal considerations are also essential to the precautionary approach and ecosystem approach, widely accepted as guiding principles for fisheries management and explicitly included in binding and non-binding global and regional fisheries agreements.

It is beyond the scope of this thesis to analyze how RFMOs have been fulfilling the obligation to ensure long-term conservation of stocks through, *inter alia*, the application of the precautionary approach or ecosystem approach.⁵¹² What is of the interest to this thesis is how the TAC and allocation and, in particular, the practical implementation of TACs and allocations, enables or challenges the consideration of inter-temporal, or intergenerational, considerations. In other words, the interest of this and the following sections is to analyze how TAC and allocation have allowed balancing short and long term benefits of the exploitation of living resources.

TAC, Conservation, and Options for Future Generations

Chapter 2 has analyzed the origins and rationale of the TAC and allocation. It has been pointed out that different studies concluded that the conservation of high seas fisheries resources required reducing the rate of fishing mortality; that the best mechanism available to do so was a quota or TAC; and that this TAC should be allocated to States to allow them to improve fishing efficiency and thus the net economic benefit. Therefore, the TAC is a fundamental conservation and management measure to ensure the long-term conservation and sustainable use of fish stocks. In establishing a TAC according to the precautionary and ecosystem approaches, it should be ensured that the

⁵¹² There are specific papers addressing the implementation of the ecosystem and precautionary approach by RFMOs, and analyzing the best practices in their implementation. See, for example: Mooney-Seus and Rosenberg, *supra* note 3; Lodge et al., *supra* note 11; Willock and Lack, *supra* note 10.

options of future generations to benefit from the goods and services or marine ecosystem are not jeopardized.

In the phase of establishing a TAC, the long-term timeframe for conservation (i.e. the inter-temporal considerations) depends on decisions made in relation to the exploitation rate. This, in turn, depends on the adopted limit and target reference points, the accepted probability of reaching those limits, and the recovery time frame. Fishing mortality producing maximum sustainable yield has been traditionally considered a target reference point. It is, nevertheless, considered a non-precautionary target and its use as a limit reference point is currently preferred.⁵¹³

The same target reference point can be more or less precautionary depending on the agreed probabilities of exceeding the limit reference point. For instance, it might be agreed that the probabilities of exceeding the limit reference point are 25%, or 50%. This decision will therefore alter the exploitation rate, being more or less precautionary and thus, compromising more or less the ability of the stock to meet future needs.

In addition, the timeframe agreed to maintain or rebuild the stock also affects the exploitation rate, the level of precaution, and the ability of the stock to meet future needs.

It should be mentioned that currently, the decision models for fisheries management do not consider an objective quantification of the needs of future generations. Nevertheless, economists have developed a series of approaches to the consideration of future generations' interests in policy decision-making. These approaches rely on discount rates to objectively assess and balance inter-temporal allocation of scarce resources. These approaches have found some echo in fisheries management science, with academic research on the use of modified discount rates to actively and objectively consider future generations in fisheries management decisions.⁵¹⁴

⁵¹³ The UNFSA guidelines for the application of the precautionary approach explicitly state that “[t]he fishing mortality rate which generates maximum sustainable yield should be regarded as a minimum standard for limit reference points” (UNFSA, Annex II, Guidelines for the Application of Precautionary Reference Points in Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, para. 7).

⁵¹⁴ See, for example: Ussif R. Sumaila, “Intergenerational cost–benefit analysis and marine ecosystem Restoration” (2004) 5 Fish and Fisheries 329; Ussif R. Sumaila and Carl Walters, “Intergenerational discounting: a new intuitive approach” (2005) 52 Ecological Economics 135; Ivar Ekeland, Claudio Pareja, U. Rashid Sumaila, “Fisheries management and intergenerational equity” (2009) 17 Les Cahiers de la Chaire, Institute Finance Dauphine Université Paris, online: Institute Finance Dauphine <www.ifd.dauphine.fr>.

Those attempts are, however, in their initial stage and have not been used by any RFMO or, to the best of my knowledge, by any national fisheries authority.

Allocation, Conservation, and Options for Future Generations

The phase of agreeing on an allocation is, in this theoretical framework, an independent decision that can be either previous, simultaneous, or subsequent to the TAC decision. This decision relates exclusively to the distribution of fishing opportunities between participating States in the present time, assuming that conservation (and inter-temporal or intergenerational) issues have been, or are going to be, considered on their own merit.

Experience shows, however, that both processes are intertwined. During the negotiation, States cannot separate the adoption of a global TAC from their share in that TAC. The relevance of the national quotas for the States' economies, fishing industries, and fishing communities, makes the decisions on TAC dependent upon the national allocation of that TAC. Considering this economic importance, and in the light of the practices for allocation that have evolved in international fisheries law and that have been described in previous chapters, a TAC and allocation process generates a rational selfish State behavior that is characterized by four effects. These four effects are: the announcement effect, the increased TAC, the paper fish effect, and increasing TAC to accommodate new entrants. They are analyzed in turn.

a) The Announcement Effect: Postponing Measures and the Race to Fish

A rational chain of events, facing the announcement of a management regime involving TAC and allocation, is for States to postpone the adoption of management measures, and in particular the allocation discussion, until their participation in the fishery satisfies their fishing aspirations or bargaining position.⁵¹⁵ In other words, the

⁵¹⁵ "But a simple analysis will show that this basis for allocation is inherently unstable because it forces existing and new members to block decision-making until such time as they have developed a capacity to participate in the fishery that matches their aspirations. Further, it forces the general fishing effort beyond sustainable limits while this positioning takes place, with the result that negotiations on relative allocation must take place at the same time as negotiations on reductions of fishing effort." (Lodge et al., *supra* note 11, at 41). "It is not in a State's interest to agree until any outstanding grievances it has about allocation are resolved." (*Ibid*, at 34).

current allocation system provides incentives to both postponing measures for the protection of the stock, and increase fishing effort and fishing capacity in the fishery - a “powerful incentive to indulge in a race to fish.”⁵¹⁶ Considering the effects of the allocation for their industries in the long-term, States have incentives to engage in fishing activities even if it is not economically viable, and even though the activity requires State subsidies.⁵¹⁷

This effect has been widely, and early, recognized: the announcement effect.⁵¹⁸ It dangerous consequences were also warned.⁵¹⁹ Experience has shown repeatedly that States and fishers behave almost inexorably according to this rationale.⁵²⁰ These experiences have shown that

States with aspirations to participate in the fishery will avoid allocation discussions or will defer joining an organization until their fishing activity has increased to a point at which they perceive that the allocation formula will give them a fair share. This delay in reaching an allocation decision has resulted in a severe decline in stock and is a critical point of potential failure of RFMOs.⁵²¹

b) Inflated TACs

If a fishery has followed its “rational path”, during the years prior to the adoption of an allocation agreement, the participants of the fishery would have increased their catches in order to increase their participation in the fishery and their bargaining power with the goal of increasing their outcome: the national quota. In some cases, new participants will enter the fishery with the same purpose. If all participating States, and

⁵¹⁶ Lodge and Nandan, *supra* note 282, at 374.

⁵¹⁷ A clear and early manifestation of this behavior is noted by Pontecorvo. During the Law of the Sea Institute Panel on Exploitation of the Living Resources of the High Seas held in 1968, he commented: “[l]ast year a Norwegian biologist told me that while he agreed with some analysis of mine which indicated significant excess capacity in the Norwegian herring fleet, it was necessary, i.e., it was politically necessary, to have that excess capacity and perhaps even add more, regardless of the cost, because Norway had to keep up her share of the catch. This questionable necessity had arisen because of the prospects of national quotas being imposed and it was assumed that the bargaining base for these quotas would be the existing distribution of the catch. Thus quotas and the prospect of quotas may lead away from the criteria for optimization of resource use rather than toward it.” (Pontecorvo, “Critique”, in Alexander (ed.), *supra* note 154, at 278-279).

⁵¹⁸ See: Anthony D. Scott, “Critique”, in Lewis M. Alexander (ed.), *ibid*, 280, at 281, citing Pigou.

⁵¹⁹ *Ibid*.

⁵²⁰ For blue whiting in the North East Atlantic, see: Lodge et al., *supra* note 11, at 41; and Dag Standal, “The rise and decline of blue whiting fisheries – capacity expansion and future regulations” (2006) 30 Marine Policy 315. For Southern bluefin tuna, see Lodge et al., *supra* note 11, at 40. For South Atlantic swordfish, see Butterworth and Penney, *supra* note 15, at 170-176.

⁵²¹ Lodge et al., *supra* note 11, at 41.

some new States, engage in that rational behavior, the catches of the fishery would be at very high levels at the moment of any possible agreement. More often, agreement can only be reached when the stock already shows signs of overexploitation.

This unsustainable level of catches acts as the baseline for the fishing aspirations of each State, and therefore their bargaining position. Not infrequently, agreement can only be reached at this high level of TAC, which accommodates the aspirations of all negotiating States.⁵²² In other words, the TAC is not set at the level that ensures long-term conservation of the stock, but rather at the level that satisfies the aspirations of participating States and that allows agreement (even though those aspirations are unrealistic if considered in relation to the status of the stock).⁵²³ The short term individual benefit overrides the long term conservation objective, with the result that the interest of future generations is overridden by the short-sighted interests of current generations.

c) The “Paper Fish” Effect

The race to fish causes the TAC to be set at high levels, in order to satisfy the aspirations of participating States. In many cases, the allocated TAC bears no relation to the conservation status and production capacity of the stock. In other words, the participating States “create” an inflated TAC for allocation purposes, but in reality the fishery does not support those levels of catches. Actual catches are often at much lower levels – the fishery is already over-exploited or depleted.

This generates “paper quotas”, i.e., quotas to be found only in paper.⁵²⁴ As such, they have little impact as effective conservation and management measures. Again, long-term conservation is postponed in light of short-sighted interests.

⁵²² See: A. Willock and I. Cartwright, *Conservation implications of allocation under the Western and Central Pacific Fisheries Commission* (WWF Australia and TRAFFIC Oceania, 2006), at 9-10, online TRAFFIC <<http://www.traffic.org/fisheries>>. Allen noted that “Overcapacity leads to pressures on representatives of states, who negotiate in tuna RFMOs, to seek to maintain or improve fishing opportunities for their own fleets on stocks already at, or approaching full exploitation. This pressure has arguably been a significant cause for the lack of, or poor, decision-making by tuna RFMOs.” (Allen, *supra* note 2, at 6).

⁵²³ Willock and Lack, describing the processes in ICCAT, have noted that this phenomenon has been identified as “ICCAT-sanctioned overfishing” (Willock and Lack, *supra* note 10, at 26).

⁵²⁴ A. Karagiannakos, “Total Allowable Catch (TAC) and quota management system in the European Union” (1996) 20 *Marine Policy* 235, at 244.

Despite the fact that the fish population does not sustain high “nominal quotas”, States have an interest in maintaining them. That is often done even against the clear scientific advice to reduce TAC.⁵²⁵ The reasons behind that interest may vary. It is often the result of a sense of entitlement to the fishery derived from the allocation of a specific quota. The quota is the recognition of the share of the fishery that “belongs” to a particular State. Thus, even if at the present moment there are no fish available to actually engage in fishing activities commensurate to the nominal quota, there is the expectation that in the future the State will take full advantage of “its share”.

Another explanation for paper or nominal quotas may be found in a sense of stability resulting from the negotiation process for that quota in particular or, more often, of the package deal resulting from allocation of different stocks within the same RFMO.

A further reason for maintaining nominal quotas is to justify the exclusion of new entrants on the basis that the fishery is fully exploited and fully allocated, even in circumstances where the participating States may not be fishing their allocated quota. That could be the case, for example, in the context of the resolutions adopted by NAFO and NEAFC to guide the expectations of new members.

In addition, and as will be analyzed in further detail in chapter 7, there is an increasing trend to allowing the negotiation (trade, purchase, or lease) of allocated quotas. In light of this possibility, an allocated quota becomes a title with value of its own, only indirectly related to the present status of the stock and the States’ capability or interest in the fishery. The valuable asset is the “paper fish” – not the actual fish anymore.

d) Accommodating New Entrants

The reluctance of States to reduce their allocated shares has yet another manifestation in the process of accommodating new entrants. In the alternative of reducing their quota to accommodate new entrants or increasing the TAC for this purpose, RFMOs usually prefer the latter alternative. In so doing, the RFMOs show a “willingness to adopt a high risk management strategy, with the risk borne by the

⁵²⁵ Willock and Cartwright, *supra* note 522, at 9.

resource.”⁵²⁶ Analyzing this behaviour from the perspective of intergenerational equity, it can be added that the risk is borne by the resource but also by future generations.

Concluding Remarks

TACs are, in theory, a fundamental management tool to achieve long-term conservation and sustainable use of high seas fish stocks. As such, they are one of the mechanisms through which intergenerational considerations may be, and ought to be, introduced in fisheries management. This purpose is frustrated, however, by the selfish, but rational, behavior of participating States in light of the current practices for setting TAC and allocation of national quotas. These practices create incentives to disregard long-term, and therefore intergenerational, considerations.

The next section provides examples that illustrate, now from a practical perspective, the effects of the establishment of TAC and allocations in RFMOs.

Section 4. Postponing Long-term Considerations: Some Examples

The consequences of TAC and allocation theoretically summarized in the previous section have been extensively described in the literature with respect to specific stocks. That is the case with blue whiting in the North East Atlantic (NEAFC),⁵²⁷ and Southern albacore in the Atlantic (ICCAT).⁵²⁸ This thesis provides two other examples: South Pacific jack mackerel and white hake.

South Pacific Jack Mackerel: a Recent Case of Announcement Effect

Chilean jack mackerel (*Trachurus murphyi*) is a schooling pelagic species distributed throughout the South Eastern Pacific, both inside EEZs and on the high seas, ranging from the Galapagos Islands and south of Ecuador in the north to southern Chile.

Fishing for jack mackerel in the South Pacific began in 1950s. The only fleets fishing for that species were Chile and Peru, both the coastal States. In the 1970s, DWNFs began to fish for the species in the South Pacific area: Bulgaria, Cuba, Korea,

⁵²⁶ *Ibid.*, at 10.

⁵²⁷ See: Lodge *et al.*, *supra* note 11, and Standal, *supra* note 520.

⁵²⁸ See: Butterworth and Penney, *supra* note 15.

Japan, Poland and the U.S.S.R. In the 1980s, Ecuador joined the fishery as a coastal State; and Estonia, Georgia, Germany, Latvia, Lithuania, and Ukraine did too as DWFNs. The distant fleet ceased its operations soon thereafter, and from 1993 to 1998, only the three coastal States registered catches. In 1999 Japan again resumed operations. Ghana and Russia joined between 2000 and 2004. EC, Faroe Islands and Vanuatu joined the fishery afterwards.⁵²⁹

In 2005, New Zealand, Chile and Australia announced that the three countries were co-sponsoring a multilateral negotiation for the establishment of a fisheries management regime for the South Pacific.⁵³⁰ The initiative was triggered by cooperative management problems with two species: jack mackerel *Trachurus murphyi* and orange roughy *Hoplostethus atlanticus*. The multilateral negotiation took place between February 2006 and November 2009, and concluded with the adoption of the SPRFMO Convention on November 14, 2009.⁵³¹

An important component of the negotiation was to establish provisional or interim conservation measures for the protection of jack mackerel and bottom fisheries. Such measures were discussed already during the second international consultation, but after lengthy and difficult negotiations agreement could not be reached. During the third meeting held in Reñaca, Chile in May 2007, States participating in the international consultations were able to agree upon voluntary interim measures for the protection of jack mackerel, for deep sea species (bottom fishing), and for collection and sharing of data.

According to the jack mackerel interim measure adopted in 2007, the States participating in the international consultation committed themselves to limiting the total

⁵²⁹ The catch information has been extracted from: SPRFMO, Scientific Working Group, *Information describing Chilean jack mackerel (Trachurus murphyi) fisheries relating to the South Pacific Regional Fishery Management Organisation*, Working Draft, 30 April, 2009, SP-07-SWG-JM-02, online: SPRFMO <<http://www.southpacificrfmo.org>>. Additional information on catch statistics can be found in the document: SPRFMO, Interim Secretariat, *Differences Between Mackerel (Trachurus species) Data Submitted to SPRFMO versus the FAO*, SP-08-SWG-INF-02, online: SPRFMO <<http://www.southpacificrfmo.org>>.

⁵³⁰ The intention was first announced in the Conference on the Governance of High Seas Fisheries Resources and the U.N. Fish Agreement: Moving from Words to Actions, held in St. John's, Newfoundland and Labrador, May 1-5, 2005, organized by the Government of Canada (Governance of High Seas Fisheries Resources and the U.N. Fish Agreement: Moving From Words to Actions, Conference Report, 1 June 2005, at 27, online: Fisheries and Oceans Canada <<http://www.dfo-mpo.gc.ca>>).

⁵³¹ For the documents of the meetings, see: SPRFMO, <<http://www.southpacificrfmo.org>>.

level of gross tonnage (GT) of vessels flying their flag fishing for pelagic stocks in 2008 and 2009 to the levels of total GT recorded in 2007 in the Area. Coastal States and States with a catch history for jack mackerel with no fishing activity in 2007 could enter the fishery and exercise voluntary restraint of fishing effort.

At the November 2009 Meeting, the States prorogued and revised the interim measure adopted in May 2007.⁵³² The revised measures are applicable from January 1st, 2010, to the date that the Convention enters into force and conservation and management measures for jack mackerel are established.⁵³³ This voluntary⁵³⁴ measure limits the fishing effort for jack mackerel to the gross tonnage (GT, or GRT when GT is not available) of vessels flying their flag to those that have been actively fishing in 2007, 2008 or 2009 in the Convention Area.⁵³⁵ The provisional GT (or GRT) for each country has been included in table 1 of the revised interim measure, but the numbers are considered provisional until the information of vessels actively fishing in 2009 has been submitted.⁵³⁶ They further agreed to voluntarily “restrain catches by vessels flying its flag in the Convention Area to the annual level of catches recorded by that participant in either 2007, 2008, or 2009”.⁵³⁷

Since the announcement of the intention to negotiate a Convention to establish an RFMO in the South Pacific in 2005, the number of participants in the fisheries, the vessels fishing for jack mackerel, and their catch reports, have increased significantly. That has occurred even after 2008, the year States agreed to limit their fishing efforts to existing levels in accordance with the voluntary interim measure.

Four States have started fishing operations for jack mackerel since 2005: EU, Faroe Islands, Cook Islands, and Belize.⁵³⁸ In addition, three States (EU, China and Korea) have not respected the interim measure of limiting fishing effort to 2007 levels, increasing the GTR operating in the area between 2008 and 2009. These increases were, however, recognized in the revised interim measure. Table 8 shows the authorized and

⁵³² SPRFMO, *Revised Interim Measures for Pelagic Fisheries*, *supra* note 407.

⁵³³ *Ibid.*, at para. 2.

⁵³⁴ *Ibid.*, at para. 5.

⁵³⁵ *Ibid.*, at para. 6.

⁵³⁶ *Ibid.*, Table 1.

⁵³⁷ *Ibid.*, at para. 9.

⁵³⁸ See: SPRFMO, Scientific Working Group, *Information describing Chilean jack mackerel*, *supra* note 529.

active fleet in the area for 2007, according to the information provided by each State to the Secretariat of the South Pacific RFMO, and the limits recognized in the revised interim measures.

Table 8. Pelagic Effort in the South Pacific RFMO Convention Area⁵³⁹

State	Authorized 2007	Active 2007	Vessels active 2007	Revised Interim Measure
Australia	5,715	0	0	-
Belize	76,136	9,814	1	9,814
Chile	138,364.37+ 7,855.55GRT	103,849	135	96,867.24 + 3,755.81GRT
China	55,672	55,672	11	74,516
Cook Island	12,613GRT	12,613 GRT	3	12,613 GRT
EC	77,209	62,999	8	78,600
Faroe Island	At least 23,415	23,415	3	23,415
Japan	4,350.62			4,350.62
Korea	10,473	10,473	3	15,222
Peru High seas Occasionally HS				40,000 25,000
Russian Federation				23,235
Vanuatu	31,220GRT	31,220GRT	4	31,220 GRT

More importantly, the catches for jack mackerel have increased considerably since 2005. Table 9 shows a detail of the catches during the 2000-2008 period, considering the latest catch reports provided to the Interim Secretariat of the SPRFMO. The evolution shows an increase from 1,600,000 tonnes in 2000 to ca. 2,000,000 in 2004. During the period 2005-2008, the catches have fluctuated between ca. 1,650,000 tonnes to 1,950,000 tonnes. However, it should be noted that the catch information of the latter period is still incomplete. Peru has not reported its catches, and other countries have announced the existence of catches but have not quantified them. It is to be expected, then, that catches are well above 2,000,000 tonnes.

⁵³⁹ The information provided in this table combines the following information: a) Tonnage of Pelagic Vessels and Numbers of Bottom Fishing Vessels Authorized to Fish in the Area between 2007 and 2010, included in Table 1 of the document SPRFMO Interim Secretariat, *Report of the Interim Management Measures*, SP-08-WP-04 Rev3, at 4, online: SPRFMO <<http://www.southpacificrfmo.org>>; b) Tonnage of Pelagic Vessels and Numbers of Bottom Fishing Vessels Actively Fishing in the Area between 2007 and 2009, included in Table 2 of SPRFMO, Interim Secretariat, *Report of the Interim Management Measures*, *ibid*, at 5; and c) the GRT included in table 1 of the Revised Interim Measures for Pelagic Fisheries, *supra* note 407, which act as the limit of fishing effort limit for the participating States (albeit numbers are provisional and may change pending the notification by participants of the GT or GRT of vessels flying their flag actively fishing in 2009, in accordance with paragraph 6 of these Interim Measures).

In particular, it should be noted that some States have increased their reported catches considerably in the last few years. Noteworthy is the EC, which started operating in the area in 2005, and in 4 years increased its catches from a little above 6,000 tonnes to more than 106,000 tonnes. Faroe Island has not reported its catches for 2008, but in 2007 it reported ca. 40,000 tonnes with just one vessel operating in the area. Vanuatu, in just 6 years of operation, has caught between 53,000 tonnes and 129,000 tonnes annually. China, in 8 years, has increased its catches from 20,000 to 160,000 tonnes, with later catches ca. 140,000 tonnes.

Table 9. Jack mackerel catches in the 2000-2008 period

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Chile	1,234,299	1,649,933	1,518,994	1,421,296	1,451,599	1,430,434	1,366,770	1,565,401	1,415,846
Ecuador	7,144	134,011	604	-	-				
Peru	296,579	723,733	154,219	217,734	186,931				
China	x	20,090	76,261	94,690	131,020	143,000	160,000	140,582	143,182
Ghana	2,472	1,157	-	-	-				
Korea	0	-	-	2,010	7,438	x	10,474	10,940	12,600
Russia	0	-	-	7,540	62,300	7,040	0	0	x
Vanuatu				53,959	94,685	77,356	129,535	112,501	100,066
EC						6,179	62,137	123,511	106,655
Faroe Island								38,700	x
Cook Island									x
Belize									x
TOTAL	1,540,494	2,528,924	1,750,078	1,797,229	1,933,973	1,664,009	1,728,916	1,991,635	1,778,349

In the meantime, the interim scientific committee has reported preoccupation on the status of the resource. According to the best scientific information available, fishing mortality is likely to have exceeded sustainable levels since at least 2002, and continues to do so.⁵⁴⁰ Current biomass levels are substantially below levels at the peak of the fishery in the 1990s and, as a result of recent poor recruitment, are highly likely to be still declining.⁵⁴¹ Evidence indicates that further declines in stock status are likely unless fishing mortality is reduced, particularly if recruitment remains poor. The interim

⁵⁴⁰ SPRFMO, Report of the Science Working Group, Auckland, New Zealand, 2 – 6 November 2009, Eight International Meeting of the Consultation on the Establishment of the SPRFMO, at 4, online: SPRFMO <<http://www.southpacificrfmo.org>>.

⁵⁴¹ *Ibid.*

scientific working group concludes that to stop further declines and re-build this jack mackerel stock, urgent and adequate measures will be required to limit fishing mortality to sustainable levels.⁵⁴²

NAFO and White Hake: Paper Quotas at Unrealistic High Levels

White hake (*Urophycis tenuis*) is a ground fish distributed along the Southwest fringe of the Grand Bank, the edge of the Laurentian channel and southwest coast of Newfoundland, in NAFO areas 3NO and 3Ps.

The directed fishery for this stock began only in 1988, by Canadian vessels.⁵⁴³ Before that, however, there were significant catches of white hake as bycatch of other groundfisheries. The catches peaked in 1985 at 8,100 tonnes in Division 3NO.⁵⁴⁴ In 2002, the EU (Spain and Portugal) joined the fishery, and so did the Russian Federation one year later.⁵⁴⁵ As a result of the participation of new States, and a particular strong recruitment of the 1999-year class, the catches reached another peak in the 2003-2004 period: between 5,300 and 6,700 tonnes, depending on the statistical record.⁵⁴⁶

In 2005, the fishery was put under an allocated TAC management regime. The negotiation process was relatively short. In 2003, the Fisheries Commission requested advice to the scientific committee, which was delivered to the 2004 Fisheries Commission meeting. The scientific committee recommended that catches should be limited to the levels of the two most recent years, which averaged 5,800 tonnes.⁵⁴⁷ However, instead, in the 2004 meeting, a Canadian proposal for TAC and allocation was adopted by the Fisheries Commission.⁵⁴⁸ The TAC was set at 8,500 tonnes for the 3-year period between 2005 and 2007. An allocation agreement was proposed by Canada, based on “standard allocation criteria” which were identified as coastal State status, percent

⁵⁴² *Ibid.*

⁵⁴³ NAFO, *Report of the Standing Committee on Fisheries Science (STACFIS)*, in NAFO, Scientific Council Reports 2009, Part A – Report of the Scientific Council Meeting 4-18 June 2009, Appendix IV, online: NAFO <<http://www.nafo.int>>, at 172.

⁵⁴⁴ NAFO Scientific Council, White hake stock assessment in NAFO, Scientific Council Reports 2009, *ibid.*

⁵⁴⁵ NAFO, STACFIS Report, 4-18 June 2009, *supra* note 543, at 172.

⁵⁴⁶ *Ibid.*, at 173.

⁵⁴⁷ NAFO, Report of the Fisheries Commission 26th Annual Meeting, *supra* note 290, para. 16.8 at 100.

⁵⁴⁸ The Canadian proposal for 3NO white hake, contained in FC Working Paper 04/19, Revised – now FC Doc. 04/16, is reproduced in Annex 16 of the NAFO Report of the Fisheries Commission 26th Annual Meeting, *ibid.*, at 147.

biomass inside and outside Canada's 200 mile EEZ, coastal community dependence and contribution to science and enforcement, catch history.⁵⁴⁹ The reports of the meeting do not provide further details on the scientific basis or justification for the proposed (and adopted) TAC, which was 46% higher than the scientific recommendation. Indeed, the TAC was set at levels even higher than the catch peak of 8,100 tonnes reported in 1985. Neither did the reports of the meetings specify the application of the allocation criteria claimed to be used, their quantification, or their relative weight. The agreed allocation was:

Canada	2,500 tonnes
EC	5,000 tonnes
Russia	500 tonnes
Others	500 tonnes
Total	8,500 tonnes

Following the adoption of the management measure, EC and Russia have discontinued direct fishing for white hake in Division 3NO.⁵⁵⁰ Reported catches in that area have fluctuated between 600 and 1,200 tonnes between 2005 and 2008.⁵⁵¹

The scientific advice has consistently stated that given the intermittent recruitment of this stock, and the change in fisheries between directed and by-catch, it is not possible to give advice on an appropriate TAC. However, considering the lower biomass and poor recruitment after the 1999 year-class, the Scientific Council has advised that catches of white hake in Div. 3NO at the current TAC of 8,500 tonnes are “not sustainable”⁵⁵² or “unrealistic”.⁵⁵³ The scientific committee recommended not exceeding the current level of catches (ca. 1,100 in 3NO). Nevertheless, the Fisheries Commission maintained the TAC and allocation for 2006, 2007, 2008 and 2009.

For 2010, the scientific committee again recommended that the 2006-2008 average annual catch level of 850 tonnes in Division 3NO not be exceeded.⁵⁵⁴ The Fisheries Commission agreed to reduce the TAC to 6,000 tonnes, still seven times higher

⁵⁴⁹ *Ibid.*

⁵⁵⁰ NAFO, STACFIS Report, 4-18 June 2009, *supra* note 543, at 172.

⁵⁵¹ *Ibid.*, at 173.

⁵⁵² NAFO, Scientific Council Reports 2005, Part A – Report of the Scientific Council Meeting 2-16 June 2005, at 21, online: NAFO <www.nafo.int>.

⁵⁵³ NAFO, Scientific Council Reports 2007, Part A – Report of the Scientific Council Meeting 7-21 June 2007, at 22-23, online: NAFO <www.nafo.int>.

⁵⁵⁴ NAFO Scientific Council, White hake stock assessment, *supra* note 544 at 22.

than the scientific recommendation.⁵⁵⁵ The allocation scheme was maintained without discussion.⁵⁵⁶ Thus, Canada was allocated 1,765 tonnes, EC 3,529 tonnes, Russia and “others” 353 tonnes each.⁵⁵⁷

Negotiation appeared to be easy in 2004 and again in 2009. No objections, debate, concerns or complaints were reported. This may not be surprising, considering that only a few States are interested in the fishery; that the national quotas apportioned to them are larger than their historical catches and, therefore, no sacrifice was required for their industries; and that the national quotas considerably exceed the real catches (and therefore the economic interest) of their fleets. The fact that the status of the stock is uncertain and declining, that the Scientific Council cannot determine reference points for the stock, and that the TAC has been absolutely inconsistent with scientific advice every year since the first conservation and management measure was adopted, appears to be irrelevant for the management decisions.

In this particular case, the status of the stock and the management regime appear to follow different paths. TAC and allocation do not act as a conservation and management measure to limit fishing mortality at sustainable levels. Allocation has a different purpose, although that purpose is unclear. A few hypotheses can be proposed. White hake allocation may be playing the role of a bargaining chip within a “package allocation” that considers the several stocks managed by NAFO. The allocation may have the objective of excluding potential new entrants to the fishery on the basis that the stock is fully exploited and fishing opportunities are fully allocated. The allocation may be considered as an investment for the future, in particular, considering that the stock is a pulse recruiter capable of producing a large year class from a small spawning stock. What is clear is that long-term conservation (and therefore intergenerational equity) is not the concern of members in adopting the TAC and allocation.

Section 5. Intergenerational Equity in TACs and Allocation: Ways Forward

Intergenerational equity, or the concern for future generations, is only explicitly stated as an objective of fisheries management in non-binding instruments. International

⁵⁵⁵ NAFO, Report of the Fisheries Commission 31st Annual Meeting, *supra* note 397, paragraph 9.7 at 8.

⁵⁵⁶ Indeed, the reports don’t even address the allocation of the white hake TAC.

⁵⁵⁷ NAFO, *Conservation and Enforcement Measures 2010*, *supra* note 236.

Conventions and regional agreements do not generally contain an explicit reference to this notion. Nevertheless, inter-temporal considerations and concern for future generations are implicit in the duty of States to conserve high seas living marine resources, a duty that has been reinforced by recent developments in international environmental law. UNFSA recognizes those developments by acknowledging the long-term conservation of stocks as the objective of high seas fisheries cooperation, and by requiring the implementation of the precautionary approach and ecosystem approach to fisheries management.

TAC and allocation, as conservation and management measures, should therefore be instrumental to intergenerational equity. It is particularly in setting the TAC that the precautionary and ecosystem approaches should be implemented, thus balancing the satisfaction of current needs with the requirement of ensuring options for future generations.

In practice, however, an allocated TAC produces incentives to disregard future needs in favor of immediate benefits. The rational selfish behavior of a State is to postpone long-term considerations in order to obtain the short-term benefit of an increased national quota. Several factors allow this rational, but detrimental, behavior. Among them, are:

- a) The freedom of the high seas and its subsequent lack of quantitative restrictions on fishing activities unless there is a specific agreement;
- b) The decision-making process requiring consensus for the adoption of fishing restrictions;
- c) The process of adoption of TAC and allocations, concentrated in the same organs of the RFMOs;
- d) The lack of explicit criteria for conservation and, therefore, lack of explicit consideration of the needs of future generations;
- e) The fact that allocations are based, mostly, on historical catches, and in particular historical catches of recent years;
- f) The desired “stability” in allocations, which in practice means roll-over of allocation agreements after the first allocation.

To address the failures of TAC and allocation in achieving long-term conservation of the fish stocks would require, therefore, addressing one or more of those factors.

Most authors addressing this problem in international fisheries law have proposed that the decisions on TAC should be separated and insulated from decisions on

allocations. Lodge *et al.* explicitly recommend that “[d]ecisions on total allowable catch or total allowable effort are insulated and separate from decisions on allocation.”⁵⁵⁸ Willock and Lack, in their review of best practices in RFMOs, also conclude that “negotiations over allocations should be transparent and separate from decisions on the level of catch or effort.”⁵⁵⁹ Lodge and Nandan concur in suggesting that “[i]t is important to emphasise that allocation rights, both in the EEZ and on the high seas, are subordinate to the obligation to conserve.”⁵⁶⁰ It is added that, for this purpose, allocations should be based on percentage of TACs instead of volume of catch expressed in tonnes.⁵⁶¹

Despite the logic of these suggestions, they face an almost insurmountable challenge in their practical implementation. Decisions on TAC and allocations are made by States, and in particular by the States participating in a specific cooperative agreement. Decisions are therefore in the hands of those States, whether they are made in the same body of the RFMO or in different bodies, and whether they are made together or in different timeframes. As a consequence, they are necessarily related decisions. And it is likely unrealistic to think that States will surrender jurisdiction to make decisions on any of them.

The opposite solution, i.e. integrating both inter- and intra-generational aspects of the decision, has also been proposed on the basis of the very concept of intergenerational equity. Indeed, in Brown Weiss’ theory of intergenerational equity, equitable access to resources (thus intra-generational equity) is a component of intergenerational equity, which denotes that they are not separate but inter-linked concepts.⁵⁶² For this reason, intergenerational equity has been categorized as an “integrative” doctrine that recognizes the legitimacy of multiple claims, and particularly the rights of members of the developing world to enjoy equal access to planetary resources.⁵⁶³ The integration is supported in the fact that the balancing of the needs of present and future generations

⁵⁵⁸ Lodge *et al.*, *supra* note 11, at 121.

⁵⁵⁹ Willock and Lack, *supra* note 10, at 27. Willock and Cartwright include the same recommendation for the WCPFC (Willock and Cartwright, *supra* note 522, Recommendation 7, at 21).

⁵⁶⁰ Lodge and Nandan, *supra* note 282, at 371.

⁵⁶¹ Lodge *et al.*, *supra* note 11, at 121.

⁵⁶² Brown Weiss, *supra* note 416, at 38.

⁵⁶³ Collins, *supra* note 418, at 117-119. Collins warns, though, that this aspect needs further development to address scenarios in which satisfying urgent needs of members of the present is simply inconsistent with future welfare (*ibid*).

needs to take appropriate account of the needs of present generations. In the absence of such a balance, future generations may benefit at the expense of current ones; or on the contrary, their needs maybe overridden by current generation's needs and aspirations.

This integration of intergenerational and intra-generational equity cannot be simply interpreted as considering a quota for future generations in the allocation of fishing opportunities. Intergenerational allocation and international allocation have a different temporal dimension and thus cannot be reduced to a uni-dimensional distribution of fish stocks. Instead, the integration between current needs and future needs in high seas fisheries could be translated, in practical terms, in an explicit and transparent consideration of the trade-offs between present and future generations' needs.

Firstly, precautionary levels of exploitation would have to be defined with an explicit reference to how that exploitation rate would protect the stock for the future. These requirements already exist in UNFSA. In particular, article 6 on precautionary approach and Annex II on Guidelines for the Application of Precautionary Reference Points in Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks already establish the obligation to determine target and limit reference points for each stock under management. However, with the exception of CCAMLR,⁵⁶⁴ this requirement is seldom fulfilled by RFMOs.⁵⁶⁵

Even when those precautionary reference points exist and the scientific advice is based on them, the scientific advice is often not followed by the management commissions. This chapter has explained why allocation implications create incentives for States to inflate TACs even disregarding scientific advice. As a result of these deviations of the scientific advice, the impact of the decision on future generations is not made explicit. Further transparency in the trade-offs between present and future

⁵⁶⁴ For example, CCAMLR defined the following yields as basis for management of Patagonian toothfish in Subarea 48.3: a) choose a yield γ_1 , so that the probability of the spawning biomass dropping below 20% of its median pre-exploitation level, over a 35-year harvesting period, is 10% (depletion probability); b) choose a yield γ_2 , so that the median escapement in the SSB over a 35-year period is 50% of the median pre-exploitation level, at the end of the projection period; and c) select the lower of γ_1 and γ_2 as the yield" (CCAMLR, Fishery Reports, Appendix L, Fishery Report: *Dissostichus Eleginoides* South Georgia (Subarea 48.3), online CCAMLR <<http://www.ccamlr.org>>).

⁵⁶⁵ Some organizations have identified precautionary reference points for at least some of the stocks managed, but they are not necessarily reflected in management actions. In addition, several stocks are managed with a quota system without having determined the precautionary reference levels. An overview of the progress and shortcoming of each RFMO in this subject can be found in Mooney-Seus and Rosenberg, *supra* note 3.

generations would required, then, that the TAC finally agreed upon is joined by an explicit declaration on how this decision would impact the availability of resources for future generations.

Another strategy suggested to practically implement intergenerational equity in environmental regimes is to include requirements to “monitor and report on the status of the trust corpus.”⁵⁶⁶ The status of the fish stock is regularly monitored by each RFMO, and in some cases also by independent reviews. Again, the transparency of these reports with respect to intergenerational considerations could be greatly improved if they include explicit declaration of the implication of the status for availability of resources for future generations.

In relation to the transparency of the trade-offs between current and future generations’ needs, it is worth mentioning yet another strategy suggested to implement intergenerational equity in international environmental law. This strategy is the representation of future generations in the decision-making process. In this context, the idea of an Ombudsman established at the international, regional, national or local level has been proposed.⁵⁶⁷ The Ombudsman could have different functions: ensure that international agreements incorporating planetary obligations and rights were properly executed (with the capacity to intervene in administrative and judicial proceedings to this end); to respond to citizen complaints and to investigate and mediate complaints regarding the non-compliance with planetary obligations established in international agreements; and to serve as watchdogs alert to impending problems affecting future generations.

The idea faces skepticism. Brown Weiss acknowledges that the role of an Ombudsman at the international level would face serious limitations on the basis of national sovereignty.⁵⁶⁸ In general, the political will to “implement and to abide by such arrangement” has been doubted.⁵⁶⁹

⁵⁶⁶ Dinah Shelton, “Equity”, in Daniel Bodansky, Jutta Brunée and Ellen Hey (eds.), *The Oxford Handbook of International Environmental Law* (Oxford: Oxford University Press, 2007) 639, at 644.

⁵⁶⁷ See: Brown Weiss, *supra* note 416, at 124. See also: Redgwell, *supra* note 432, at 84-90, for further initiatives and scholarly support for the establishment of a planetary ombudsman.

⁵⁶⁸ Brown Weiss, *ibid*, at 125.

⁵⁶⁹ Redgwell, *supra* note 432, at 90.

In relation to high seas fisheries, the idea of an Ombudsman actively participating in the decision-making process has not been suggested and is, realistically, very unlikely. However, another function attributed to the Ombudsman, namely the function of a “watchdog”, in practice has been exercised by the many institutions, academics and NGOs that periodically review the performance of RFMOs.⁵⁷⁰ These “watchdog” initiatives could either put pressure for RFMOs to integrate intergenerational equity in the TAC decision making process, directly undertake that task by analyzing and publishing how the TAC decisions of RFMOs impact the availability of resources for future generations, and raise awareness of those tradeoffs.

At this point, it should be noted that the transparency of trade-offs by RFMOs or watchdog initiatives are hindered by the limited responses available to address or approach cases of weak performances. Beside public shame, they seldom result in a practical and timely response that improves long-term conservation of the stocks. The same is generally the case with the performance reviews undertaken by RFMOs, although its institutional and official character may imply the necessity of a more proactive response on the part of the RFMO and their member States. However, NGOs and public pressure have proven successful mechanisms to promote change in some cases; its potential should not be underestimated.

The alternative of resorting to international dispute settlement bodies on the basis of breaches to the obligation of long-term conservation of living marine resources, the obligation to cooperate for the conservation of those resources, or the obligation to implement the precautionary or ecosystem approach, has generally not been exercised.⁵⁷¹

⁵⁷⁰ See, for example: Mooney-Seus and Rosenberg, *supra* note 3; Lodge *et al.*, *supra* note 11, Willock and Lack, *supra* note 10; OECD, *supra* note 15.

⁵⁷¹ Two exceptions, although not really raising the subject of future generations explicitly, were: the *Southern Bluefin Tuna Cases (New Zealand v. Japan; Australia v. Japan)* submitted to an Arbitral Tribunal constituted under Annex VII of the United Nations Convention on the Law of the Sea, and the *Case concerning the Conservation and Sustainable Exploitation of Swordfish Stocks in the South-Eastern Pacific Ocean (Chile/European Union)* submitted to a Special Chamber of the International Tribunal for the Law of the Sea, case No. 7, online: International Tribunal for the Law of the Sea (ITLOS) <http://www.itlos.org/start2_en.html>. Neither of those proceedings resulted in a substantive judgment by the dispute settlement procedures. See: *Request for the prescription of provisional measures pending the constitution of an Arbitral Tribunal in the dispute concerning Southern Bluefin Tuna (New Zealand v. Japan; Australia v. Japan)* ITLOS Order of 27 August 1999, 38 ILM 1624 (1999); *Southern Bluefin Tuna Case between Australia and Japan and between New Zealand and Japan, Award on Jurisdiction and Admissibility* (2000), 39 ILM 13 (2000) (Arbitral Tribunal constituted under Annex VII of the United

Indeed, it has been widely noted that the current structure of dispute settlement procedures is not suitable to address cases where multilateral action and global conservation are at stake.⁵⁷² However, as status of resources decline, this may be an avenue that some States may pursue seriously in the future.

Finally, an approach that has been less explored as a means to avoid the persistent disregard of long-term conservation in the adoption of TACs and allocation, is the necessity to change the allocation criteria or mechanisms in order to remove the incentives to engage in a race to fish. Indeed, the race to fish is motivated by two main factors: the fact that historical catches, and furthermore, recent catches, are the predominant allocation criterion; and the fact that the first allocation establishes the participation of each State in the fishery on a permanent, or almost permanent, basis. As long as these two features persist, so will the inevitable chain of events (“postponing management measures - race to fish – increased catches – inflated TAC – paper quotas”). This particular proposal is further addressed in the next chapter.

Nations Law of the Sea Convention), (Arbitrators: Judge Stephen M. Schwebel, H.E. Judge Florentino Feliciano, Rt. Hon. Justice Sir Kenneth Keith, KBE, H.E. Judge Per Tresselt, Professor Chusei Yamada).

⁵⁷² For an analysis of the different interpretations on the application of compulsory settlement of disputes to conflicts over management of straddling and highly migratory, see Oude Elferink, *supra* note 357, at 598–602.

Chapter 5. TAC and Allocation and Intra-generational Equity

This chapter addresses the fundamental question of distribution of fishing opportunities among competing States – a question of equity. It attempts to explore the normative content of the concept of equity as a legal standard for the allocation of a scarce resource.

The question is posed in the context of an evolution that denotes an ongoing struggle to achieve predictable and objective patterns of distribution. That struggle has been depicted in chapters 2 and 3. Since predictability and objectivity are predominant roles of law, it is therefore implied in this struggle that there is a perceived need to define and refine legal principles applicable to the distribution of fishing opportunities. In other words, there is a need to identify normative content to equity considerations.

But the question is also posed in the context of a belief that the distribution – and indeed equity - is a political rather than a legal issue. Oda has categorically asserted that in the issues of allocation of benefits and burdens of ocean management and conservation,

(...) the concept of equity has a predominant impact, while legal norms play little or no role. Equity comprises no objective legal criterion and varies in each circumstance. Its evaluation or determination is not a simple matter. Solutions in the above categories nonetheless will need to be found; but they will not be found simply in rules and regulations of law, and they are not subject simply to judicial determination.⁵⁷³

In the same line, Molenaar noted that the “allocation process is to a large extent governed by political and negotiating factors, and constrained only by very general rules and principles of international law.”⁵⁷⁴

The purpose of this chapter is to explore and ultimately challenge those assertions. An attempt is made to determine what role can law fulfill in order to provide objective and predictable solutions to the distributional problem; to identify those “very general rules and principles of international law” applicable to the issue; and to refine, or at least suggest ways to refine, their normative content.

⁵⁷³ Oda, *supra* note 18, at 690.

⁵⁷⁴ Molenaar, “Participation”, *supra* note 16, at 479.

To address this task, it is necessary to address first the meaning and role of equity in international law. Within this wider framework, the concept of intra-generational equity in international environmental law and in the field of sustainable development is analyzed. This first task proved not to be easy. Equity is a controversial, multidimensional, and evolving, concept. Schachter has stated that “no concept of international law resists precise definition more than the notion of equity”.⁵⁷⁵ Weeramantry cites a scholar defining equity as "a riddle wrapped in a mystery inside an enigma."⁵⁷⁶ This thesis has no ambition for solving the riddle. An introductory section on equity is needed, however, to address the main focus of this chapter: equity as a legal standard for allocation of resources. That extended introductory analysis provides a framework to address whether equity is considered in the international fisheries legal and regional framework.

After these general introductory analyses, the chapter explores, in successive sections, three legal principles rooted in equity. The first section addresses the role of equity in maritime delimitation. This analysis provides important insights on the construction of a normative concept of equity in international law, as interpreted and applied by international tribunals.

The second section analyses the concept of equitable utilization in the law of non-navigational uses of international watercourses. This field of international law was considered relevant because it is with respect to this shared resource that the principle of equitable utilization has had most developments at the legal, policy and jurisprudential level. In addition, its legal framework offers significant parallelism with the legal framework for straddling and highly migratory stocks, analyzed in chapter 3. Water shares with straddling and highly migratory stocks the fact that they “move” across boundaries.

The third section addresses the principle of common but differentiated responsibility, and the extent that it provides a useful standard for allocation of burdens and benefits.

⁵⁷⁵ Schachter, *supra* note 19, at 55.

⁵⁷⁶ Weeramantry, separate opinion in *Case Concerning Maritime Delimitation in the Area between Greenland and Jan Mayen (Denmark v. Norway)* [1993] I.C.J. Rep. 38, at 217.

The purpose of this analysis is to draw on lessons and key concepts on the contribution of equity to solving allocation problems. Those lessons and contributions are summarized in the last section of this chapter, including an analysis of the particular conflicts of interests identified in chapter 3.

Section 1. Equity in International Law

Equity is multi-dimensional. It is a philosophical, ethical, political, and legal concept. The role of equity, and its relation to law, has long been debated. Some consider that equity is not a legal concept, but just an ethical one. Some consider that equity is the moral foundation of international law. Others see in equity the objective of international law (and thus, more *lege ferenda* than *lex lata*). However, currently there seems to be agreement in that equity, and equitable principles, is part of substantive and procedural legal frameworks.⁵⁷⁷ It is equity as a legal concept that is of interest for this thesis, although references to the relationship between equity as a legal concept and ethical, political or social concepts of equity are inevitable.

Even narrowing the meaning of equity to its legal meaning, it is a concept that is understood differently and plays different roles in common law and civil law systems, and in domestic and international law systems. The aspect relevant for this thesis is the legal concept of equity as understood and applied in international law.

The traditional concept of equity arises from Aristotle's *Nicomachean Ethics*. Along with the two forms of particular justice,⁵⁷⁸ Aristotle identifies a procedural notion of equity, or the equitable, as corrective justice. Corrective justice implies an individualization of the general law to specific cases. Aristotle stated: "[w]hen the law speaks universally, then, and a case arises on it which is not covered by the universal statement, then it is right, where the legislator fails us and has erred by over-simplicity, to correct the omission – to say what the legislator himself would have said had he been

⁵⁷⁷ See, for example: Panel "Is there a Role for Equity in International Law?" 1987 (81) American Society of International Law Proceedings 126.

⁵⁷⁸ The two forms of particular justice identified by Aristotle are corrective, rectificatory or commutative justice, and distributive justice (Aristotle, *Nicomachean Ethics*, trans. by Sir David Ross (London; Toronto: Oxford University Press, 1954), Book V at 106 ff.). More comments on distributive justice will be made below.

present, and would have put into his law if he had known.”⁵⁷⁹ Equity, or the equitable, acts then as a “correction of law where it is defective owing to its universality.”⁵⁸⁰

Janis has stated that “equity acting as a form of judicial discretion is the oldest and most generally accepted role for equity in international law.”⁵⁸¹ In this respect, it is useful to distinguish equity, as a legal concept, from *ex aequo et bono*, which the Tribunals may apply to the settlement of disputes with the consent of the respective States. As stated by Sir Jennings, the difference between these two notions of equity is not only the source of discretion (States’ consent, or law). The content of equity and the process of its application are different, as well. “[E]quity, as a part of law, should mean the application to the case of principles and rules of equity for the proper identification of which a legal training is essential. The appreciation and application of equity so conceived is essentially juridical.”⁵⁸²

The issue is, however, not settled. Controversy exists on the extent to which an international judge can exercise discretion to complement, or even modify, international law and in particular treaty law. In this respect, three types of equity have been identified: equity *infra legem*,⁵⁸³ equity *praeter legem*,⁵⁸⁴ and equity *contra legem*.⁵⁸⁵ While equity *infra legem* is generally accepted (and even recognized as “the ordinary process a court has to go through to arrive at its judgment”)⁵⁸⁶, the recourse to equity *praeter legem* and *contra legem* is debated and, in the latter case, mostly rejected.

A second form of equity that has had recognition in international law is autonomous equity⁵⁸⁷, or broadly conceived equity.⁵⁸⁸ In this case, equity does not mitigate the unfair effects of the application of the rule of law to a particular situation, but

⁵⁷⁹ Aristotle, *ibid*, Book V, chapter 10, 1137b8-34, at 133.

⁵⁸⁰ *Ibid*.

⁵⁸¹ Mark Janis, *An Introduction to International Law*, 4th ed. (New York: Aspen Publishers, c2003), at 67.

⁵⁸² Sir R.Y. Jennings, “Equity and Equitable Principles” (1986) 42 Ann. Suisse dr. int. 27, at 30.

⁵⁸³ Equity *infra legem*, that is, within the law, is applied to specific cases in such a way as to achieve the law’s intent, but without exceeding the law’s formal language (Janis, *supra* note 581, at 70).

⁵⁸⁴ Equity *praeter legem*, that is, beyond the law, is used to fill the gaps and supplement the law with equitable rules necessary to decide the case at hand (*ibid*).

⁵⁸⁵ Equity *contra legem*, that is, against the law, is used when the rules of the law are disregarded and the equitable result achieved despite the law’s explicit injunction (*ibid*).

⁵⁸⁶ Duncan French, “International Environmental Law and the Achievements of Intragenerational Equity” (2001) 31 Environmental Law Reporter 10469.

⁵⁸⁷ Robert Kolb, *Case Law on Equitable Maritime Delimitation: Digest and Commentaries*, transl. by Alan Perry (The Hague; London: Martinus Nijhoff, 2003) at xxii.

⁵⁸⁸ Franck, *supra* note 8, at 64.

is itself the dominant rule of law. As can be imagined, such a broad concept of equity has been resisted as a legal concept – and considered as cases of application of *ex aequo et bono*.

A key element of both forms of equity is their connection to the factual situation. The application of equity requires, then, a legal process of identifying the factors of the specific case that have legal relevance, and considering how those factors affect the application of the rule of law. Among those relevant factors are the rights, entitlements and interests of parties that are in conflict. “Equity *infra legem* allows the court to determine which interpretation is the most just, having regard to the circumstances and balancing the rights and obligations of the parties”.⁵⁸⁹ Schachter has also identified as one of the methods of operation of equity, the balancing of interests of the parties. Thus, equity is also understood as an exercise of balancing the rights, interests, needs and other considerations that are in conflict in a specific situation.

Equity is also understood as a legal standard for allocating shared resources; and more generally, allocating the benefits, resources, burdens, and costs that derive from a common resource. Schachter, for example, mentions equitable standards for the allocation of sharing of resources and benefits as one of the five uses of equity in international law. Shelton, as well, classifies rules for allocation of scarce resources as substantive norm of equity. Franck considers that equity is a mode of introducing justice into resource allocation;⁵⁹⁰ and adds that equity lends “important assistance in this task, affording judges a measure of discretion, within a flexible rule-structure, commensurate with the uniqueness of each dispute and the rapid evolution of new resource recovery and management technology.”⁵⁹¹

Many authors refer to this notion of equity as synonymous of distributive justice.⁵⁹² Distributive justice, or equity, tracks its roots back to Aristotle. He defined distributive justice as one form of particular justice that requires that the distribution of honor, money, or other things that fall to be divided among those who have a share in the

⁵⁸⁹ French, *supra* note 586.

⁵⁹⁰ Franck, *supra* note 8, at 56.

⁵⁹¹ *Ibid.*

⁵⁹² See, for example: Shelton, *supra* note 20, at 65; Jutta Brunnée, “Climate change, global environmental justice and international environmental law” in Jonas Ebbesson and Phoebe Okowa (eds.), *Environmental Law and Justice in Context* (Cambridge, UK; New York: Cambridge University Press 2009) 316, at 319.

constitution, according to merit, although not all may agree on the sort of merit that shall be relevant for the distribution.⁵⁹³

Equity as distributive justice is understood also with a different emphasis. It is understood not as a correction of strict rules of law, nor balancing of competing rights and interests, but as a norm correcting existing distribution of wealth. In this understanding, the principle of distributive justice and economic equity justifies a transfer of resources from developed to developing States, in order to reduce and if possible eradicate the gap that exists between a minority of rich nations and a majority of poor nations.

Janis has observed that the concept of equity is understood under two different conceptions by western and third world international lawyers, respectively. Western lawyers, following a traditional conception of equity as corrective equity and therefore as judicial discretion, view equity as “a flexible corrective function in specific cases not well-handled by strict universal rules”⁵⁹⁴ (which he calls discretionary justice). Third world international lawyers, in turn, “see equity notions as emerging from perceived economic and political injustices in the global distribution of wealth and power.”⁵⁹⁵ These equity notions, thus, would correct those inequalities in the distributions of wealth.

This dual meaning of the concept of equity is also noticed by Schachter. He notes that “equity and distributive justice are identified almost entirely with the demands of the poor and disadvantaged for a larger share of resources”.⁵⁹⁶ Indeed, he notes that for economists, distributive justice is used “virtually as a code word for wider income distribution and transfer payments to the poor.”⁵⁹⁷ He acknowledges, however, that the idea of equity has a much wider meaning for governments than this narrow interpretation of the term.⁵⁹⁸

In this respect, it is useful to mention a distinction made by the International Court of Justice in the field of maritime delimitation. Although equity is considered a

⁵⁹³ Aristotle, *supra* note 578, Book V(3).

⁵⁹⁴ Mark Janis, “The Ambiguity of Equity in International Law” (1983) 9 Brook. J. Int’l L. 7, at 22.

⁵⁹⁵ *Ibid.*, at 20.

⁵⁹⁶ Oscar Schachter, *Sharing the World’s Resources* (New York: Columbia University Press, 1977) at 18.

⁵⁹⁷ *Ibid.*

⁵⁹⁸ The wider interpretation takes into account the notions of entitlement in actual disputes where strong feelings of injustice have been generated (*ibid.*). Its conception of equity based on the concepts of entitlement and need will be discussed further below.

principle of international law applicable to maritime boundary disputes (and actually, one of the main areas where equity as a legal principle has been recognized and applied), the International Court of Justice has explicitly ruled that maritime delimitation is not a matter of distributive justice.⁵⁹⁹ The judgment on the North Sea Continental shelf cases⁶⁰⁰ stated that the task of the tribunal was related to

delimitation and not the apportionment of the areas concerned or their division into converging sectors. [...] Delimitation in an equitable manner is one thing, but not the same thing as awarding a just and equitable share of a previously undelimited area [...].⁶⁰¹

The exclusion of matters of distributive justice from maritime boundary disputes has justified the rejection of economic and social factors as relevant criteria in the search for an equitable solution. Judge Oda, in his dissenting opinion in the Continental Shelf (Libyan Arab Jamahiriya/Malta) Judgment, states that consideration of socio-economic elements involve

global resource policies, or basic problems of world politics, which not only could not be solved by the judicial organ of the world community but stray well beyond equity as a norm of law into the realm of social organization.⁶⁰²

Does this imply that the apportionment of shared resources – distributive justice – is necessarily a political rather than legal decision? Fuentes, commenting on international watercourses law, argues not. She argues that the distinction between delimitation and apportionment is rather artificial,⁶⁰³ and that the “real objection to the inclusion of socio-economic factors does not lie in a *per se* extra-legal nature of the socio-economic criteria, but on how these factors should operate in the process of delimitation so that the decision

⁵⁹⁹ Schachter identifies five uses for equity, one of which is “equity as a broad synonym for distributive justice and to satisfy demands for economic and social arrangements and redistribution of wealth”. This use is distinguished from the use of equity as an equitable standard for the allocation and sharing of resources and benefits (Schachter, *supra* note 19, at 55-6).

⁶⁰⁰ *North Sea Continental Shelf cases (Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands)*[1969] I.C.J. Rep. 3.

⁶⁰¹ *Ibid*, para. 18 at 22. The judgment also states that: “[i]t follows that even in such a situation as that of the North Sea, the notion of apportioning an as yet undelimited area, considered as a whole (which underlies the doctrine of the just and equitable share), is quite foreign to, and inconsistent with, the basic concept of continental shelf entitlement, according to which the process of delimitation is essentially one of drawing a boundary line between areas which already appertain to one or other of the States affected” (*ibid*, para. 20).

⁶⁰² Dissenting opinion of Judge Oda in the *Continental Shelf (Tunisia v. Libyan Arab Jamahiriya)*, [1982] I.C.J. Rep. 18, para. 157 at 255-6, as cited by Ximena Fuentes, “The criteria for the equitable utilization of international rivers” (1997) 67 Brit. Y.B. Int’l L. 337, at 341.

⁶⁰³ Fuentes, *ibid*, at 342.

does not intrude into the political realm.”⁶⁰⁴ In other words, the inclusion of socio-economic elements in the application of the rule of equitable utilization “does not necessarily transform what is to be a judicial decision into a political one.”⁶⁰⁵ The correct approach, in this interpretation, is to distinguish between relevant and non-relevant socio-economic factors.⁶⁰⁶ Thus, and according to this interpretation, establishing just and equitable shares of an undivided resource is not, *per se*, excluded from the application of equity as a rule of law.⁶⁰⁷

In this distinction, it is the latter concept of distributive justice which seems to be denied a legal character – while the balancing of rights and interests (even when those rights and interests have an economic or social component) is considered a matter of law if they are relevant to the dispute, and to the extent to which they are relevant.

It seems apparent that international lawyers and scholars alike address equity as distributional justice under two different notions, or doctrines in the terms of Janis. One is a legal notion of equitable principles that allow making case-specific decisions on balancing different interests and rights, a function that is intrinsically a legal reasoning (what could be called distributional justice in a narrow, technical or legal, sense). The other is a socio-political concept of re-distribution of wealth to correct social injustices – a concept that is extra-legal in nature (what could be called distributional justice in a broader, or political, sense).

Janis, however, makes a note of caution with respect to the attributed extra-legal nature of distributional justice in a broader sense. He acknowledges that this notion does not necessarily imply any legal quality, but economic, political or moral aspirations; and that it is simple to dismiss them as not having any meaning in international law or that they represent, at best, *lege ferenda*.⁶⁰⁸ However, he notices that this explanation is

⁶⁰⁴ Fuentes, *ibid*.

⁶⁰⁵ Fuentes, *ibid*, at 341. It should be noted that the ICJ has considered some economic factors in the delimitation of maritime boundaries. See, for example: Prosper Weil, *The Law of Maritime Delimitation – Reflections* (Cambridge: Grotius, 1989) at 258-264.

⁶⁰⁶ Fuentes, *ibid*, at 342.

⁶⁰⁷ In this understanding, and commenting on international watercourses, Fuentes considers it entails advantages to examine more closely the role that prospective relevant factors may play in the process, not to find a general formula applicable to all situations, but to assess the potential relevance of the different prospective criteria and to identify certain guidelines that States and international tribunals should follow when applying the rule of equitable utilization (Fuentes, *ibid*, at 340).

⁶⁰⁸ Janis, *supra* note 594, at 19.

inadequate for two reasons: first, because it does not take into account the references to equity made in subsequent international practice in relation to economic relations; and secondly, it does not take into account a doctrine (the “third world doctrine”) that ascribes a legal quality to the broader concept of distributional justice.⁶⁰⁹

Both of these arguments are best understood while analyzing the principle of intra-generational equity in the field of sustainable development.

Section 2. International Environmental Law, Sustainable Development, and Intra-Generational Equity

Equity is considered to be a key concern, and indeed an important element of political division, in environmental law and law of sustainable development.⁶¹⁰ This equity concern arises from the global impacts on the environment that can be created by development efforts, and the increased interdependency of countries in the globalized world. It arises as well from the interactions between environmental protection and development opportunities, subsumed in the concept of sustainable development. It is a possibility and a reality that while some communities reap the benefits of development, others bear its environmental costs. It is also possible that costs of environmental protection are imposed unevenly among and within communities. Those distributional problems are equity problems; and they have created sharp divisions among countries. Brown Weiss noted that

[a]t the 1992 UN Conference on Environment and Development (UNCED), countries were deeply divided over questions of equity (...) While [countries] agreed that environmental protection and economic development were compatible through sustainable development, they disagreed about who should pay for it and how much.⁶¹¹

The concern of equity in the integration of environmental protection and economic and social development has been present since the first conferences addressing

⁶⁰⁹ *Ibid.*

⁶¹⁰ Edith Brown Weiss has noted that “[c]oncerns about equity have become the focus of pointed conflicts in the negotiation and implementation of international environmental legal instruments” (Edith Brown Weiss, “Environmental Equity: The Imperatives for the Twenty-First Century” in Winfried Lang, ed., *Sustainable Development and International Law* (London; Boston: Graham & Trotman/Martinus Nijhoff, 1995) 17, at 17).

⁶¹¹ *Ibid.*

those issues.⁶¹² However, its emphasis – and consequently the political divisions– became stronger along with a stronger emphasis on the development aspects of sustainable development.⁶¹³

The 1992 Rio Declaration was adopted “with the goal of establishing a new and equitable global partnership through the creation of new levels of cooperation among States, key sectors of societies and peoples.”⁶¹⁴ Its third principle states: “The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.” It adds in principle 5:

All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.

On the basis of this declaration, the International Law Association has included equity and eradication of poverty as one of the principles which “application and, where relevant, consolidation and further development [...] would be instrumental in pursuing the objective of sustainable development in an effective way.”⁶¹⁵ The principle of equity includes, in this formulation, both inter- and intra-generational equity, which is defined as “the right of all peoples within the current generation of fair access to the current generation’s entitlement to the Earth’s natural resource”.⁶¹⁶ In respect to the latter, the ILA states:

The right to development must be implemented so as to meet developmental and environmental needs of present and future generations in a sustainable and equitable manner. This includes the duty to co-operate for the eradication of poverty in accordance with Chapter IX on International Economic and Social Co-operation of the Charter of the United Nations and the Rio Declaration on Environment and Development as well as the duty to co-operate for global

⁶¹² For example, the Brundtland Report, *supra* note 451, stated at para. 4 that “[a] world in which poverty and inequity are endemic will always be prone to ecological and other crises.”

⁶¹³ Schrijver notes that the Rio Declaration is less specific on the management of natural resources and nature conservation while putting more emphasis on poverty reduction and the development dimension. (Schrijver, *supra* note 453, at 71). French, in turn, states: “It is also clear the [1987] World Commission re-balanced the environment-development debate, giving equal – some would argue, grater – emphasis to the latter” (French, *supra* note 476, at 16).

⁶¹⁴ *Rio Declaration on the Environment and Development*, *supra* note 455.

⁶¹⁵ ILA New Delhi Declaration, *supra* note 21, at 212-213.

⁶¹⁶ *Ibid*, para. 2.1 at 213.

sustainable development and the attainment of equity in the development opportunities of developed and developing countries.⁶¹⁷

Several references to equity can be also found in the environmental agreements that were elaborated in recent years and in particular under the umbrella of UNCED conferences. Prominent examples thereof are the Climate Change Convention,⁶¹⁸ and the Biodiversity Convention.⁶¹⁹

It is somehow paradoxical that, despite the deep division by countries on matters of equity,⁶²⁰ the concept is nevertheless profusely invoked in international instruments. It is therefore not a surprise that the actual meaning of those equity references, its legal status, and practical consequences are not clear.⁶²¹ Sands notes:

Little consideration was given, however, to what the concept means or to its consequences when applied to a particular set of facts. Indeed, the way it was sometimes referred to suggests that some of its main proponents had little understanding of its prior use in international law, especially as recently applied by the International Court of Justice. At UNCED, the term provided a convenient way of introducing flexibility and ambiguity into the rights and obligations which were being put in place. Its frequent usage reflects a lack of consensus (as opposed to the existence of consensus) in efforts to allocate rights and responsibilities for States with differing levels of economic development and perspectives on their future needs and priorities.⁶²²

The ambiguity can be found not only in legal instruments, but also in the work of scholars. Albeit all recognize equity, intra-generational equity, or equitable use as components of the broader concept of sustainable development, their understanding of

⁶¹⁷ *Ibid*, para. 2.3 at 213.

⁶¹⁸ The United Nations Framework Convention on Climate Change, *supra* note 466, article 3: “The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.”

⁶¹⁹ CBD, *supra* note 462, article 1: “The objective of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of its benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.”

⁶²⁰ Brown Weiss stated that: “[a]t the 1992 UN Conference on Environment and Development (UNCED), countries were deeply divided over questions of equity” (Brown Weiss, *supra* note 610, at 17).

⁶²¹ French, for example, notes: “The notion of equity is an accepted part of the sustainable development debate; it is arguably what differentiates sustainable development from the issue of environmental protection simpliciter. What it means, however, is completely an open question” (French, *supra* note 476, at 28).

⁶²² Sands, *supra* note 475, at 340.

the concept differs. In many respects, this ambiguity reflects the distinction between “discretionary justice” and “distributive justice” identified by Janis and discussed in the previous section.

Sands, for example, addresses intra-generational equity as a synonym of equitable use, which he perceives in terms similar to judicial discretion (albeit applied to negotiations): “a flexible means of leaving the extent of rights and obligations to be decided at a subsequent date”⁶²³ and with an emphasis on the balancing of relevant factors.⁶²⁴ References made to allocation of shared freshwater resources, as well as the *Icelandic Fisheries case*, and the *Gabcikovo-Nagymaros*⁶²⁵ case reinforce that, in Sands approach, intra-generational equity is equivalent to equity as understood and applied by international tribunals: as a rule or principle of law.

Other authors, on the contrary, address intra-generational equity as a concept with, mainly, a redistributive objective. This can be clearly seen from the ILA New Delhi Declaration, which addresses equity together with eradication of poverty.⁶²⁶ Schrijver, who follows the principles identified in this declaration in his analysis, notes in respect to intra-generational equity that it can refer to: a) more equal development opportunities; or b) a more just income distribution within a country as well as in an international North-South context.⁶²⁷

Perhaps the clearest exposition of the multiple, and evolving, roles of equity within the concept of sustainable development is explained by French. He starts by stating that equity has both a legal and political meaning, but then focuses on the political meaning of equity. In this respect, French observes that within the concept of sustainable development, equity means different things, or more precisely, has become to mean different things as the agenda of sustainable development has broadened.⁶²⁸ On one side,

⁶²³ Sands, *supra* note 453, at 262.

⁶²⁴ He notes: “In each of these cases, the factors to be taken into account in establishing specific rights and obligations must be determined in the circumstances of each instrument, including its provisions, the context of its negotiation and adoption, and subsequent practice by the organs it establishes and by parties” (*ibid*, at 261).

⁶²⁵ *Ibid*, at 262-263.

⁶²⁶ Schrijver notes that the addition of eradication of poverty was added at the explicit request of African and Indian ILA members to emphasize its great importance. However, he adds, “this is, as such, more an objective than a principle of international law” (Schrijver, *supra* note 453, at 178).

⁶²⁷ *Ibid*, at 177.

⁶²⁸ French, *supra* note 476, at 28.

it means simply that environmental protection must be accompanied by developmental aspects. But progressively, the purpose of equity has evolved to consider quality-of-life and human development that need to be addressed if sustainable development is to become meaningful. “The role of equity within sustainable development is consequently to confront the wider structural issues of injustice and unfairness within the international economic and political system that have hindered the South’s development since the 1960s.”⁶²⁹ From this role of equity would derive a moral and legal injunction upon the North to assist the South with its efforts to develop sustainably.⁶³⁰ Not surprisingly, French notes that the North does not share this notion of equity, and instead prefers a narrower concept of equity that simply highlights the fact that poverty is a major cause of environmental degradation.⁶³¹

This is the place to discuss, then, the legal status of equity or intra-generational equity as a component of sustainable development. Generally, the concept of sustainable development has been denied the status of a legal principle or legal norm in international law.⁶³² The same is true for one of its components: intra-generational equity. It has been noted that “there is little in the way of State practice and *opinio juris* to suggest that it is customary international law”.⁶³³ Schrijver, for example, considers that “intra-generational equity can at best be allocated a ‘soft law’ status.”⁶³⁴ Sands does not address the legal status of the principle explicitly.

However, even understood as a political statement and thus as an objective of policy action, rather than as a normative concept, it has legal implications. Two of them can be identified: a) the interpretation of legal concepts – including the legal concept of

⁶²⁹ French, *ibid.*

⁶³⁰ French, *ibid.*

⁶³¹ French, *ibid.*, at 29.

⁶³² See: Alistair Rieu-Clarke, *International Law and Sustainable Development: Lessons from the Law of International Watercourses* (London: IWA Publishing, 2005), at 48-57. He notes that some authors attribute legal binding status to some of the elements of sustainable development (*ibid.*, at 54). A noteworthy contrary opinion is held by Judge Weeramantry, who considers that “[t]he principle of sustainable development is thus a part of modern international law by reason not only of its inescapable logical necessity, but also by reason of its wide and general acceptance by the global community” (Separation opinion of Vice-President Weeramantry in *Gabcikovo-Nagymaros Project (Hungary v. Slovakia)*, [1997] I.C.J. Rep. 7, at 95).

⁶³³ J. Hepburn, with A. Khalfan, “The Principle of Equity and the Eradication of Poverty” Centre for International Sustainable Development Law (CISDL) Legal Working Paper in “Recent Developments in International law Related to Sustainable Development” Series, online: CISDL <www.cisd.org>.

⁶³⁴ Schrijver, *supra* note 453, at 178.

equity;⁶³⁵ and b) the inception and development of legal principles of rules of international law.⁶³⁶

The Brundtland report has defined sustainable development as “development that meets the needs of present generations without compromising the ability of future generations to meet their own needs.”⁶³⁷ This definition highlights two key elements of the concept of sustainable development:

- a) The idea of limitations to development imposed by the carrying capacity of the environment;
- b) The emphasis on “needs”, which implies the idea that people in developing countries as well as future generations should be able to meet their basic needs.⁶³⁸

Equity, in the concept of sustainable development, puts an emphasis on the social and development considerations, along with environmental concerns. Thus, the concept of sustainable development sheds a new, and stronger, light into social and economic aspects – need – in the decision making process.

Equity, interpreted in the light of sustainable development, would require that emphasis, or at least careful consideration be given to the social and economic aspects in this balancing exercise. And as has been already noted in the previous section, this emphasis or careful consideration to social and economic aspects and the needs of the parties does not necessarily transform a decision based on equity as a legal norm, into a decision based on politics.

There is still another legal implication of the concept of sustainable development in the interpretation, inception and development of legal standards. Sustainable development emphasizes the material differences between the countries involved. An equal treatment of States that are formally equal, but substantially unequal, is by definition unjust. Giving emphasis to the material situation of the State, and establishing appropriate responses according to these differences, is a matter of equity or justice. And this equity concern is precisely the justification of the principle of common but

⁶³⁵ French, *supra* note 476, at 44, with reference to sustainable development only, notes: “the inclusion of sustainable development as an objective of a treaty will justify State parties or ‘authoritative third part[ies]’ relying upon the concept in their interpretation of the treaty.”

⁶³⁶ *Ibid*, at 45, with reference to sustainable development only, notes: “the second important legal implication of the incorporation of sustainable development into a treaty is its potential impact upon the subsequent development of the treaty.”

⁶³⁷ Brundtland Report, *supra* note 451.

⁶³⁸ Schrijver, *supra* note 453, at 23-24.

differentiated responsibility. The acknowledgment of different material circumstances through the principle of common but differentiated responsibility has had distributive consequences; it implies that “the cost of preventive measures is not met equally by all States.”⁶³⁹

Section 3. Equity and Equitable Principles in International Fisheries Instruments

The previous sections have explained how the concept of equity, and equity as a norm for the allocation of scarce resources (i.e. distributional justice), has been understood in international law and in international law in the field of sustainable development. The current section addresses whether equity, in its narrow or broad meaning, have been included as a principle in international fisheries law.

References to equity in international fisheries law leave one with a mixed feeling. On the one hand, the LOSC has as clear objective the achievement of equity. On the other hand, references to equity ever since the LOSC have almost disappeared from international instruments.

The LOSC includes several references to equity. The preamble states

Recognizing the desirability of establishing through this Convention, with due regard for the sovereignty of all States, a legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment,

Bearing in mind that the achievement of these goals will contribute to the realization of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole and, in particular, the special interests and needs of developing countries, whether coastal or land-locked,

References to equity are also made in the substantive sections of the treaty, in the following context:

⁶³⁹ Ximena Fuentes, “International Law-making in the Field of Sustainable Development: The Unequal Competition between Development and the Environment” in Nico Schrijver and Friedl Weiss, *International Law and Sustainable Development: Principles and Practices* (Leiden; Boston: Martinus Nijhoff Publishers, c2004) 7, at 25.

- a) As a fundamental legal norm to resolve conflicts of interests in the EEZ;⁶⁴⁰
- b) As a standard to regulate access to the fish stock surplus in the EEZ from the same subregion or region by land-locked States and geographically disadvantage States;⁶⁴¹
- c) As the standard and objective of maritime delimitation of EEZ and continental shelves;⁶⁴²
- d) As a legal standard for the distribution of the payments and contributions made by coastal States to the International Seabed Authority with respect to the exploitation of the continental shelf beyond 200 nautical miles;⁶⁴³
- e) As a legal standard for the distribution of the benefits of the exploitation of the international seabed, common heritage of humankind;⁶⁴⁴
- f) As a guiding principle for the transfer of marine technology for the benefit of all States concerned;⁶⁴⁵ and the training of members of the managerial, research and technical staff constituted by the Seabed Authority;⁶⁴⁶ and
- g) To guide the composition of international organs by States through geographic representation.⁶⁴⁷

⁶⁴⁰ LOSC, article 59: "In cases where this Convention does not attribute rights or jurisdiction to the coastal State or to other States within the exclusive economic zone, and a conflict arises between the interests of the coastal State and any other State or States, the conflict should be resolved on the basis of equity and in the light of all the relevant circumstances, taking into account the respective importance of the interests involved to the parties as well as to the international community as a whole"; and LOSC, article 69(3): "When the harvesting capacity of a coastal State approaches a point which would enable it to harvest the entire allowable catch of the living resources in its exclusive economic zone, the coastal State and other States concerned shall cooperate in the establishment of equitable arrangements on a bilateral, subregional or regional basis to allow for participation of developing land-locked States of the same subregion or region in the exploitation of the living resources of the exclusive economic zones of coastal States of the subregion or region, as may be appropriate in the circumstances and on terms satisfactory to all parties. In the implementation of this provision the factors mentioned in paragraph 2 shall also be taken into account." In relation to geographically disadvantaged States, see similar provisions in LOSC, article 70.

⁶⁴¹ See: LOSC, article 69(1): "Land-locked States shall have the right to participate, on an equitable basis, in the exploitation of an appropriate part of the surplus of the living resources of the exclusive economic zones of coastal States of the same subregion or region, taking into account the relevant economic and geographical circumstances of all the States concerned and in conformity with the provisions of this article and of articles 61 and 62.

⁶⁴² LOSC, article 74: "The delimitation of the exclusive economic zone between States with opposite or adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution." See also article 83, with a similar provision with respect to the continental shelves.

⁶⁴³ LOSC, article 82(4);

⁶⁴⁴ LOSC, article 140. See also article 155, 160, 162(2)(o)

⁶⁴⁵ LOSC, article 266(3) and 269(b);

⁶⁴⁶ LOSC, article 274(a).

⁶⁴⁷ LOSC, article 76(8); article 160(2) subparagraph (d); article 161(1) subparagraph (e); article 162(2)(e); article 163(4); and Annex II on Commission on the Limits of the Continental Shelf, article 2(1); Annex IV on the Statute of the International Tribunal for the Law of the Sea, article 2(2) and 35(2).

According to Janis, the equity provisions of the LOSC “display a considerable and confusing degree of variety.”⁶⁴⁸ Although in some cases he ascribes a particular reference to one of the doctrines of equity he previously identifies,⁶⁴⁹ many equity references can be read with different emphasis, according to the reader’s eyes.

Most importantly for this thesis, the provisions regulating the high seas, and particularly the conservation and use of living marine resources in the high seas, do not have any reference to equity or equitable principles. Similarly, UNFSA does not make any references to equity in its preamble or in its substantive provisions. This absence is more remarkable if it is considered in the context of a LOSC where equity is explicitly stated as an objective in many provisions and institutions.

Is equity, therefore, a principle for high seas fisheries governance regimes? And if so, what does equity mean for the high seas fisheries regulatory framework?

The foundations of the high seas fisheries regime are in the LOSC and thus, the general principles of the LOSC shall be considered applicable to it. The preamble of the LOSC recognizes the desirability of establishing, through the Convention, a legal order that promotes, *inter alia*, “equitable and efficient utilization of their resources”.⁶⁵⁰ It could be argued, therefore, that the objectives of the high seas fisheries regime should be in line with equity and efficiency. However, this preamble can also be read as to mean that this equitable and efficient utilization of the resources is achieved through the carefully balanced rights and obligations of States as developed in the LOSC provisions. In other words, it can be argued that equity and efficiency were the guiding principles in the overall design of the different regimes of the oceans included in the LOSC. That does not mean, or at least not necessarily, that equity and efficiency are directly applicable as guiding principles in each of the regimes; in particular in the high seas fisheries regime where equity is not explicitly mentioned.

The objectives for high seas fisheries management, as established in articles 63, 64, and 118 of the LOSC regulating the duty for States to cooperate in the case of high

⁶⁴⁸ Janis, *supra* note 594, at 28.

⁶⁴⁹ In his opinion, the references to equity in the preamble are better understood as distributive justice, while the equity reference in maritime delimitation are better understood as discretionary justice (Janis, *ibid*). In the case of the compositions of organs under equitable geographic representation, he does not provide a label but they can be categorized as forms of procedural justice, aimed at providing representation and participation to the different categories of States.

⁶⁵⁰ LOSC preamble, para. 4.

seas fisheries, is the “conservation”⁶⁵¹ and “optimum utilization” of the high seas living marine resources.⁶⁵² UNFSA, in turn, states as an objective of the agreement, and thus of the cooperation of States, the “long-term conservation” and “sustainable use” of straddling and highly migratory stocks. Is equity included, implicitly, in those objectives?

It has already been mentioned in chapter 4 that the term conservation, which originally was centered in maximizing productivity as in the concept of maximum sustainable yield, can be interpreted in the light of the principles advanced by international environmental law. Following those developments, FAO has defined the objective of fisheries management as maintaining the quality, diversity and availability of fishery resources in sufficient quantities for present and future generations in the context of food security, poverty alleviation and sustainable development.⁶⁵³ UNFSA, in turn, also reflects those developments in its provisions, and in particular in the broader concept of conservation that includes ecosystem considerations and the precautionary approach. This broader concept of conservation is also reflected in the objective of the agreement: the long-term conservation and sustainable utilization of straddling and highly migratory stocks.

It has been doubted if this objective - to ensure the long-term conservation and sustainable use of straddling and highly migratory stocks - can be regarded as a specific norm governing the outcome of an allocation process.⁶⁵⁴ Even if it is considered as an overarching objective of high seas fisheries management and therefore governing the specific management measure of TAC and allocation, it is doubtful that it includes equity

⁶⁵¹ LOSC, article 63(2), and articles 117 and 118.

⁶⁵² LOSC, article 64(1), and articles 117 and 118.

⁶⁵³ See also: FAO Code of Conduct, *supra* note 25, article 7.1.1: “Conservation and management measures, whether at local, national, subregional or regional levels, should be based on the best scientific evidence available and be designed to ensure the long-term sustainability of fishery resources at levels which promote the objective of their optimum utilization and maintain their availability for present and future generations; short-term considerations should not compromise these objectives”. The Code Introduction states: “Fisheries, including aquaculture, provide a vital source of food, employment, recreation, trade and economic well-being for people throughout the world, both for present and future generations and should therefore be conducted in a responsible manner”. The FAO Conference Resolution (Annex 2 of the FAO Code of to Conduct, *supra* note 25), at para. 1, states: “Recognizing the vital role of fisheries in world food security, and economic and social development, as well as the need to ensure the sustainability of the living aquatic resources and their environment for present and future generations”.

⁶⁵⁴ Molenaar, “South Tasman Rise Arrangement” *supra* note 16, at 91, writes: “The norm ‘to ensure the long-term conservation and sustainable use’ of transboundary stocks would perhaps better be regarded as a more superior or overarching norm, which does not specifically govern the outcome of the balancing of the different rights and interests of states.”

as a principle guiding access to fishing opportunities. Long-term conservation, as it has been stated in the previous chapter, has an emphasis on the inter-temporal dimension of conservation. The term sustainable utilization, in turn, is probably used in the sense of the utilization that is compatible with the regeneration of the stock. In other words, the term sustainable refers probably to a biological sustainability of the stock (inherent in the terms maximum or optimum sustainable yield), rather than to the concept of sustainable development (including intra-generational equity).

The latter interpretation can be supported by reference to the history of the concept of sustainable development. Schrijver notes that the concept of sustainability acquired its earliest expression in fisheries, and in particular in the concept of maximum sustainable yield.⁶⁵⁵ However, he also notes that the substance of the concept of sustainable development has been formed by a convergence of international developments in the fields of environmental conservation, development and human rights.⁶⁵⁶ In the early manifestations of the term sustainable, therefore, the development aspect and the related idea of intra-generational equity, were not yet present.

This interpretation can also be supported by the principles of sustainable development recognized by scholars. Sands and Schrijver, for example, identify sustainable use as a distinctive element of sustainable development, and different from intra-generational equity.⁶⁵⁷

It must be noted, however, that the objective for fisheries management included in provision 6.2 of the Code of Conduct makes an explicit reference to sustainable development (and not sustainable use). This reference may allow a conclusion that the elements of sustainable development – and in particular intra-generational equity – are guiding principles for the adoption of conservation and management measures, including TAC and allocation. However, the Code of Conduct applies to all fishing activities within and beyond EEZs, so its interpretation as a guiding principle for allocation of fishing opportunities in the high seas may be questioned. In addition, the non-binding character of the code must be taken into account.

⁶⁵⁵ Schrijver, *supra* note 453, at 38.

⁶⁵⁶ *Ibid.*, at 64.

⁶⁵⁷ Sands, *supra* note 475, at 341, identifies the principle as sustainable use or non-exhaustion of natural resources. Schrijver, *ibid.*, at 173, refers to the duty of States to ensure sustainable use of natural resources.

Other non-binding international instruments do not make references to equity either. But more interesting is the fact that, in the drafting of several documents, explicit references to equity or equitable allocations were deleted and replaced with reference to “transparent” allocation criteria consistent with “existing international law.” Several examples can be cited in this respect.

The first example is the Johannesburg Plan of Action. The Plan includes a paragraph (nr. 30) which identifies several actions to achieve “sustainable fisheries”. One of those actions, included in subparagraph e), is to

encourage relevant regional fisheries management organizations and arrangements to give due consideration to the rights, duties and interests of coastal States and the special requirements of developing States when addressing the issue of the allocation of share of fishery resources for straddling stocks and highly migratory fish stocks, mindful of the provisions of the United Nations Convention on the Law of the Sea and the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, on the high seas and within exclusive economic zones.

An earlier proposal included the expression "equitable and" sustainable fisheries as a goal for the actions listed in paragraph 30; and subparagraph (e) included a reference to "the rights of coastal States" in the allocation of highly migratory fish stocks. Both the reference to equitable in the chapeau of the paragraph, and the reference to rights of coastal States in the high seas, was objected to by several States.⁶⁵⁸ It was argued, for this latter point, that the LOSC did not recognize any rights of coastal States in the high seas. After lengthy negotiation, the difficulty was settled by a package deal that included: a) amending subparagraph (e) to reflect the language of LOSC in article 116 - “rights, duties, and interests of coastal States” - and to add a reference to the special requirements of developing States; and b) remove the reference to “equitable” fisheries in the chapeau.⁶⁵⁹

Another example is the IPOA IUU. Molenaar observes:

⁶⁵⁸ IISD, Earth Negotiation Bulletin, Summary of the Fourth Session of the Preparatory Committee for the World Summit on Sustainable Development, 27 May – 7 June 2002, Volume 22 No. 41, Monday, 10 June 2002, online: ISSD <<http://www.iisd.ca>>.

⁶⁵⁹ IISD, Earth Negotiation Bulletin, *WSSD Highlights Tuesday 27 August 2002*, Vol. 22 No. 44 (Wednesday, 28 August 2002) online: ISSD <<http://www.iisd.ca>>.

It is noteworthy that para. 71 of the Sydney Draft IPOA on IUU Fishing [...], stipulated that RFMOs “should address the issue of access to the resource in a timely, realistic and equitable manner in order to foster co-operation and enhance sustainability in the fishery”. In the October 2000 Draft IPOA on IUU Fishing [...], the words “in a timely, realistic and equitable manner” have been left out, although the sentence now ends with “in accordance with international law”.⁶⁶⁰

Another example is offered by the work developed by the Informal Consultation of the States parties to the UNFSA to agree on elements for assessing the adequacy and effectiveness of the Agreement, in preparation for the 2006 UNFSA Review Conference. During the fourth Informal Consultation, its Chairman circulated a working paper with possible criteria for assessing the effectiveness of the Agreement.⁶⁶¹ This working paper included, among other, the following element: “Fishing allocation – extent to which RFMOs have allocated fishing opportunities fairly and equitably”. The Consultation discussed the draft assessment criteria during the next informal UNFSA preparatory meeting in March 2006, on the basis of a revised Chairman working paper that would take into account the suggestions made by the delegates and submitted in the interim.⁶⁶² The agreed document on “Elements for assessing the adequacy and effectiveness of the Agreement” worded the criteria in the following terms: “participatory rights – extent to which RFMOs have agreed, as appropriate, on participatory rights, such as allocation of allowable catch or levels of fishing effort.”⁶⁶³

Not surprisingly, the same debate took place during the Review Conference of UNFSA, where participatory rights and allocation of fishing opportunities was explicitly

⁶⁶⁰ Molenaar, “South Tasman Rise Arrangement”, *supra* note 16, note 67 at 92.

⁶⁶¹ Chairman’s Suggested Working Paper I, Rev. 1, “Possible Criteria for Assessing Effectiveness of the Agreement”, included in UN, *Report of the Fourth Informal Consultations of States Parties to the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks* (New York, 31 May – 3 June 2005), ICSP4/UNFSA/REP/INF.1, 18 July 2005, Annex IV at 16, online: DOALOS <<http://www.un.org/Depts/los/index.htm>>.

⁶⁶² Report of the Fourth Informal Consultations of States Parties to UNFSA, *ibid*, para. 47 at 9.

⁶⁶³ UN, *Review Conference on the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, *supra* note 278, “Elements for assessing the adequacy and effectiveness of the Agreement.” It should be noted that the draft assessment criteria contained in the working paper presented by the chairman and the revised draft assessment criteria also consider, under the item “functioning of RFMOs”, the extent to which all RFMOs are “determining the participatory rights of new members in accordance with Article 11, and operating in accordance with the transparency provisions of article 12” (See: Chairman’s suggested working paper I, Rev.1, *supra* note 661, and “Elements for assessing the adequacy and effectiveness of the Agreement”, *ibid*).

addressed by the Conference. Delegates acknowledged that “articles 10(b) and 11 of [UNFSA] provided the framework for participatory rights”, as well as the effort undertaken by some RFMOs to address participatory rights and allocation issues. However, they noted that “further work is needed to develop more detailed criteria for participatory rights, bearing in mind the importance of addressing social and economic interests in a manner consistent with conservation objectives.”⁶⁶⁴ As a consequence, the Conference agreed to recommend that States, individually and collectively through regional fisheries management organizations,

(...) address participatory rights through, inter alia, the development of transparent criteria for allocating fishing opportunities, taking due account, inter alia, of the status of the relevant stocks and the interests of all those with a real interest in the fishery.⁶⁶⁵

Once again, the wording of this recommendation was subject to debate and negotiation. An earlier draft included the need to develop “equitable criteria for allocating fishing opportunities”, an expression that was later replaced by “transparent criteria”.⁶⁶⁶

At the regional level, most RFMO Conventions do not make a reference to equity as either a goal or objective of the organization, or a goal or objective of the allocation

⁶⁶⁴ The remark was made among calls to pay attention to States with limited capacity, and to improve the main criteria of historical catches to ensure “a more equitable distribution of the resources”. Similar remarks were made also while dealing with participation in RFMOs and overcapacity. The need to “enhance transparency and predictability regarding regional organizations’ regulations relating to allocations” was also expressed.

⁶⁶⁵ UN, *Report of the Review Conference on the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, *supra* note 278, para. II.B(c) at 37.

⁶⁶⁶ IISD, Earth Negotiation Bulletin, Summary of the UN Fish Stocks Agreement Review Conference, 22-26 May 2006, Vol. 7 No. 61, Monday, 29 May 2006, online: International Institute for Sustainable Development (IISD) <<http://www.iisd.ca>>. There was actually an attempt to eliminate, or at least diminish the relevance, of allocation for the 2006 UNFSA Review Conference. During the Fifth meeting of the Informal Consultation of Parties to UNFSA, some delegates suggested that “the issue of MCS [monitoring, control and surveillance] more important than the issue of fishing allocations, and thus proposed that the criterion on fishing allocations be replaced by a criterion on MCS if time was a limiting factor for discussions at the Review Conference. One delegation noted, however, that the issue of allocations was important when considered broadly, as there were fundamental problems in the manner in which RFMOs provided access to members” (UN, *Report of the Fifth Round of Informal Consultations of States Parties to the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks* (New York, 20 to 24 March 2006) ICSP5/UNFSA/REP/INF.1, 26 April 2006, para. 64 at 14, online: DOALOS <<http://www.un.org/Depts/los/index.htm>>). The criterion was maintained, albeit in the wording noted in the text.

processes in particular.⁶⁶⁷ The only exceptions thereto are SEAFO and IOTC, which have explicitly mentioned equitable utilization, equitable benefit or equitable participation in the preamble and, in the case of IOTC, in the normative text of their Conventions.⁶⁶⁸

The lack of references to equity, and furthermore, the explicit attempt to delete references to equity in global instruments, may lead to the conclusion that equity was intentionally not considered as a fundamental norm in the high seas fisheries regime.⁶⁶⁹

The opposite interpretation (i.e. to consider equitable use as a fundamental norm guiding the allocation process, despite the fact that it has not been considered explicitly in LOSC or UNFSA⁶⁷⁰) has been supported with reference to two arguments.⁶⁷¹ One of them is based on the decisions in the *Fisheries Jurisdiction (Federal Republic of Germany v. Iceland)* and *Fisheries Jurisdiction Case (United Kingdom v. Iceland)* cases,⁶⁷² where the ICJ explicitly held that the States involved were “under mutual obligations to undertake negotiations in good faith for the equitable solution of their differences concerning their respective fishery rights”,⁶⁷³ and that “in order to reach an equitable solution of the present dispute it is necessary that the preferential fishing rights

⁶⁶⁷ The objectives of the RFMOs’ Conventions usually follow the language of UNFSA: achieving long-term conservation and sustainable use. In some cases, optimum utilization is used.

⁶⁶⁸ SEAFO Convention, *supra* note 94, preamble, para. 10 and 13: “Recognising economic and geographical considerations and the special requirements of developing States, and their coastal communities, for equitable benefit from living marine resources”; and “bearing in mind that the achievements of the above will contribute to the realisation of a just and equitable economic order in the interests of all humankind, and in particular the special interests and needs of developing States”. The first, second and fourth paragraph of the IOTC Convention, *supra* note 88, state: “Recognizing the desirability of promoting the peaceful uses of the seas and oceans, and the equitable and efficient utilization and conservation of their living resources”; “desiring to contribute to the realization of a just and equitable international economic order, with due regard to the special interests and needs of developing countries”; and “recognizing, in particular, the special interests of developing countries in the Indian Ocean Region to benefit equitably from the fishery resources”. Article V.2(b) establishes, as a function and responsibility of the Commission, “to encourage, recommend, and coordinate research and development activities in respect of the stocks and fisheries covered by this Agreement, and such other activities as the Commission may decide appropriate, including activities connected with transfer of technology, training and enhancement, having due regard to the need to ensure the equitable participation of Members of the Commission in the fisheries and the special interests and needs of Members in the region that are developing countries.”

⁶⁶⁹ It must be noted, however, that the LOSC equity provisions have been criticized for displaying “a considerable and confusing degree of variety” (Janis, *supra* note 594, at 28).

⁶⁷⁰ Molenaar states: “while the role of equity in allocation may not be explicitly mentioned in the LOS Convention or the 1995 Fish Stocks Agreement, support for such a role nevertheless exists under general international law” (Molenaar, “South Tasman Rise Arrangement”, *supra* note 16, at 92).

⁶⁷¹ *Ibid*, at 92.

⁶⁷² *Fisheries Jurisdiction (Federal Republic of Germany v. Iceland)*, Merits, [1974] I.C.J. Rep. 175; and *Fisheries Jurisdiction Case (United Kingdom v. Iceland)*, Merits, [1974] I.C.J. Rep. 3.

⁶⁷³ *Fisheries Jurisdiction Case (United Kingdom v. Iceland)*, *ibid*, para. 69 at 30.

of Iceland, as a State specially dependent on coastal fisheries, be reconciled with the traditional fishing rights of the Applicant.”⁶⁷⁴ The “significance of equity in multilateral fisheries management in general, and of allocation in particular, is also apparent in many other paragraphs of the Judgment.”⁶⁷⁵

A second argument arises from several regional practices that, paradoxically, recognized equity explicitly as a guiding norm for allocation of fishing opportunities. Beside the two regional agreements already mentioned above, the cases of ICCAT and NAFO are worth considering. ICCAT criteria for allocation of fishing opportunities states explicitly that “the allocation criteria should be applied in a fair and equitable manner (...)”.⁶⁷⁶ The work undertaken by NAFO to develop guidelines for allocation was also built upon a general support for the view that allocation criteria “should reflect the principle of equity”.⁶⁷⁷ These examples demonstrate that States assign a role to equity in the allocation processes.

Scholars, on the other hand, provide wide support for the application of equity to high seas governance, in general, or high seas fisheries management, in particular. It has been noted that Molenaar supports the application of equity to high seas fisheries allocation conflicts. Rayfuse and Warner also identify intra-generational equity as one of the “modern norms of international law” which conditions the exercise of the freedom of the high seas.⁶⁷⁸ Freestone, in turn, identifies sustainable and equitable use as one principle for high seas governance in the 21st century.⁶⁷⁹ This opinion has been reflected in the IUCN ten modern principles for high seas governance.⁶⁸⁰

In this very obscure and contradictory description, it is hard to assess whether States consider equity as a fundamental principle for high seas fisheries management and

⁶⁷⁴ *Ibid.*

⁶⁷⁵ Molenaar, “South Tasman Rise Arrangement”, *supra* note 16, at 92. See also: Oude Elferink, *supra* note 357, at 573-577. It should be noted, however, that the dispute dealt with interests of coastal State and DWFNs in a pre-EEZ era, in areas of the ocean where the court considered the coastal State had a preferential but not exclusive right.

⁶⁷⁶ ICCAT, Resolution 2001-25, *supra* note 300, para. IV.19.

⁶⁷⁷ See, *inter alia*: NAFO, Report of the Working Group on Allocation of Fishing Rights to Contracting Parties of NAFO, 28-30 March 2000, Washington D.C., USA, GC Doc. 00/2, para 4.4, in NAFO, *Meeting Proceedings of the General Council and Fisheries Commission for 2000* (Dartmouth, NS: NAFO, 2001).

⁶⁷⁸ Rayfuse and Warner, *supra* note 127, at 418.

⁶⁷⁹ See: David Freestone, “Editorial: Principles Applicable to Modern Oceans Governance” (2008) 23 Int’l J. Mar. & Coast. L. 385, at 391.

⁶⁸⁰ IUCN, *10 Principles for High Seas Governance*, *supra* note 56. See also: David Freestone, *ibid.*

of allocation of fishing opportunities in particular. An explanation of these contradictory records may be found, however, by focusing on the different meanings of equity in international law provided in the previous sections.

Indeed, the expression of “equitable criteria for allocation” has been replaced by “transparent criteria for allocation according to international law” in those cases where, because of the context of the document and their global scope, equitable may have been understood as distributive justice in its re-distributive meaning. On the contrary, a technical concept of equity as balancing the different rights and interests according to the relevant circumstances of the particular case, does not create such an objection.

In addition, scholars that consider equity as a principle to be applied to high seas governance or allocation of fishing opportunities consider equity in this technical sense: as an act of balancing the rights, interests and relevant factors of the particular case. That is demonstrated, for example, by the fact that the principle has been sustained in the references to equity made by the ICJ in the *Fisheries Case*. It is also demonstrated by the fact that scholars make a reference to equitable use or equitable utilization, which is widely recognized as a principle of international law. In addition, IUCN defines explicitly equitable use as “balance between the rights and interests of individual users and those of the international community.”⁶⁸¹

There are other legal arguments that support a role for equity in its legal meaning. One of them is the provision of articles 87(2) and 116(b) of the LOSC. According to article 87(2), the freedoms of the high seas shall be exercised by all States with due regard for the interests of other States in their exercise of the freedom of the high seas. According to article 116(b), the States have the right to fish in the high seas, but a right that is qualified by the rights, duties and interests of coastal States with respect to, among others, straddling and highly migratory stocks. The provisions of “due regard” and “subject to” imply an act of accommodation and balancing of the rights and interests of

⁶⁸¹ IUCN, *ibid*. It should be noted that the balance of the rights and interests of individual users and the international community emphasizes the conservation aspects, more than the balance among individual users. It should also be noted that Freestone derives this principle from the concept of sustainable development, in which intra-generational equity has been subject to varied interpretations. In addition, the legal status of intra-generational equity and sustainable development is controversial, as has been explained in the previous chapter.

the States (both fishing in the high seas and coastal States), which is the essence of equity in its legal meaning.

The same conclusion arises from the provisions of UNFSA, in articles 7, 11 and 24. All these provisions identify a series of “relevant factors” that need to be taken into account in decisions on compatibility of measures within and outside EEZ, and allocation of fishing opportunities to new members. The consideration of all relevant factors of the particular case is also an element of the essence of the traditional legal notion of equity.

For these reasons, whether explicitly stated as an objective of the allocation process of the RFMO or not, it can be concluded that at least *prima facie*, a technical or legal meaning of equity can be considered as a guiding principle in the allocation processes.

However, this raises the question of what that implies for allocation processes. What is the normative content of equity in international law? How does it constrain the discretion of States?

To address these questions, the following three sections will analyze the implementation of three equitable principles. The first is equitable delimitation in maritime boundary delimitation; the second is the law of non-navigational uses of international watercourses; and the third is the principle of common but differentiated responsibility. At the end of this analysis, lessons for high seas fisheries are drawn.

Section 4. The Principle of Equitable Delimitation in Maritime Boundary Delimitation

It has been already noted that there is one significant difference between equitable delimitation and allocation of shared resources. The ICJ has explicitly stated that the task of the tribunal was related to

(...) delimitation and not the apportionment of the areas concerned or their division into converging sectors. [...] Delimitation in an equitable manner is one thing, but not the same thing as awarding a just and equitable share of a previously undelimited area [...].⁶⁸²

⁶⁸² *North Sea Continental Shelf cases (Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands)*, *supra* note 600, para. 18 at 22. The judgment also states that: “[i]t follows that even in such a situation as that of the North Sea, the notion of apportioning an as yet undelimited area, considered as a whole (which underlies the doctrine of the just and equitable share), is quite foreign to, and

Delimitation is also intrinsically linked to geographic characteristics, where allocation of straddling or migrating fishing resources does not have a clear, and permanent, geographical connection. As a consequence, delimitation of a boundary has a permanent character while allocation of fishing opportunities is subject to changes due to changes in circumstances.

Despite those differences, the analysis of equitable delimitation is useful in the search for a legal principle with normative content. On the one hand, it has already been noted that at least some authors do not see dramatic differences between the act of delimitation and the act of apportionment.⁶⁸³ In addition, the method for arriving at such a delimitation has some similarities with an allocation process. In particular, as it is the case in equitable use, “the delimitation is to be effected in accordance with equitable principles and taking account of all relevant circumstances, so as to arrive at an equitable result”.⁶⁸⁴ Thus, it has been suggested that maritime delimitation law can provide some assistance in addressing the problem of allocation of fishing opportunities.⁶⁸⁵ Most importantly, the jurisprudence on the concept of equity in the context of maritime boundaries delimitation provides valuable insights into the question of normative content of equitable principles – and thus as equity as law.

Equity with a Normative Content

The concept of equity has played an essential role in the field of maritime boundary delimitation, both in the cases of delimitation of continental shelf and EEZs. Indeed, the LOSC provides very limited guidance on how the delimitation of maritime boundaries is to be effected. According to its provisions, it has to be made “by agreement, on the basis of international law, as referred to in Article 38 of the Statute of the

inconsistent with, the basic concept of continental shelf entitlement, according to which the process of delimitation is essentially one of drawing a boundary line between areas which already appertain to one or other of the States affected” (*ibid*, para. 20).

⁶⁸³ See: *supra* note 603 and accompanying text.

⁶⁸⁴ *Continental Shelf (Libyan Arab Jarnahiriya v. Malta)*, [1985] I. C.J. Rep. 13, para. 79 at 57. Schachter refers to both equitable use and maritime delimitation under the title “equitable principles applied to resources and boundaries” (Schachter, *supra* note 19, at 58).

⁶⁸⁵ Molenaar, “South Tasman Rise Arrangement”, *supra* note 16, at 91; J.M. van Dyke, “Plenary lecture: The evolution of the Law of the Sea and the challenges of allocating the living resources of the high seas”, online: International Ocean Institute <www.ioinst.org/templates/ioinst/Docs/PIM31/TOP1/vandyke.pdf>.

International Court of Justice, in order to achieve an equitable solution.”⁶⁸⁶ It has been the dispute settlement bodies which, through a series of judgments that have been considered as “case law”,⁶⁸⁷ have enriched the normative content of equity as a norm of law. It should be mentioned that this process has not been linear or uncontroversial.⁶⁸⁸ Nevertheless, its general evolution and the scholar commentaries it has generated provide valuable insights on equity as a substantive legal standard.

A starting point in this evolution is the 1969 *North Sea Continental Shelf Cases* (*Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands*).⁶⁸⁹ In its judgment, the ICJ denied the equidistance rule the status of a rule of law,⁶⁹⁰ and instead declared that the delimitation of continental shelves was to be done: a) by agreement of the parties, and b) on the basis of equitable principles, and taking

⁶⁸⁶ LOSC, article 74 and 83.

⁶⁸⁷ Kolb, “Introduction”, *supra* note 587, at xx. The modern maritime delimitation law is forged, according to Kolb, almost entirely in the crucible of a series of legal decisions, alternating between the ICJ and a series of arbitral tribunals, during the years since 1969 (Kolb, *ibid*).

⁶⁸⁸ Kwiatkowska notes the following variety of factors involved in the disputes to explain the uncertainties and unanswered questions on the equitable maritime boundary delimitation: a) some cases took place before the LOSC Convention was signed; b) in some cases the parties requested to indicate principles and rules of international law applicable to delimitation, whereas in other cases the dispute settlement body was requested to draw the delimitation line; c) some cases involved delimitation of continental shelves where others dealt with single maritime boundaries; d) some cases involved States having opposite coasts and others adjacent coasts; e) in some cases the parties invoked equidistance and equitable principles, while in others equitable principles only (Barbara Kwiatkowska, “Equitable Maritime Boundary Delimitation: A Legal Perspective” (1988) 3 Int’l J. Estuarine & Coastal L. 287, at 288).

⁶⁸⁹ *North Sea Continental Shelf cases* (*Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands*), *supra* note 600.

⁶⁹⁰ The equidistance principle was included in article 6 of the 1958 Convention on the Continental Shelf, and thus was purported by Netherlands and Denmark as being a rule of law under that agreement and under customary international law. Article 6 of the Convention reads: “1. Where the same continental shelf is adjacent to the territories of two or more States whose coasts are opposite each other, the boundary of the continental shelf appertaining to such States shall be determined by agreement between them. In the absence of agreement, and unless another boundary line is justified by special circumstances, the boundary is the median line, every point of which is equidistant from the nearest points of the baselines from which the breadth of the territorial sea of each State is measured. 2. Where the same continental shelf is adjacent to the territories of two adjacent States, the boundary of the continental shelf shall be determined by agreement between them. In the absence of agreement, and unless another boundary line is justified by special circumstances, the boundary shall be determined by application of the principle of equidistance from the nearest points of the baselines from which the breadth of the territorial sea of each State is measured. 3. In delimiting the boundaries of the continental shelf, any lines which are drawn in accordance with the principles set out in paragraphs 1 and 2 of this article should be defined with reference to charts and geographical features as they exist at a particular date, and reference should be made to fixed permanent identifiable points on the land” (*Convention on the Continental Shelf*, 29 April 1958, 15 UST 471, 499 UNTS 311 (entered into force 10 June 1964)).

account of all the relevant circumstances.⁶⁹¹ In 1982, and in the light of the new text of the LOSC recently adopted, albeit not yet in force, the ICJ reiterated this notion in the *Continental Shelf (Tunisia v. Libyan Arab Jamahiriya)* by stating that

[c]learly, each continental shelf case in dispute should be considered and judged on its own merits, having regard to its peculiar circumstances; therefore, no attempt should be made here to overconceptualize the application of the principles and rules relating to the continental shelf.⁶⁹²

The same judgment ruled that “there was only one truly normative rule of maritime delimitation, namely that the result must be equitable.”⁶⁹³

In this construction of equity, “a principle was equitable only if it led to an equitable result, which depended entirely upon the facts of the particular case.”⁶⁹⁴ In the same line, the methods used for delimitation were only techniques which the tribunal was free to use or discard.⁶⁹⁵ While emphasizing the result of the delimitation process, the Court diminished the role of equity principles. In subsequent judgments, it abandoned the terminology of “equitable principles” for “equitable criteria”,⁶⁹⁶ which in fact “were analyzed as relevant circumstances.”⁶⁹⁷

⁶⁹¹ *North Sea Continental Shelf cases (Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands)*, *supra* note 600, para. 101 at 53.

⁶⁹² *Continental Shelf (Tunisia v. Libyan Arab Jamahiriya)*, *supra* note 602. Judge Waldock asserted: “The difficulty is that the problem of delimiting the continental shelf is apt to vary from case to case in response to an almost infinite variety of geographical circumstances. In consequence, to attempt to lay down precise criteria for solving all cases may be to chase a chimera; for the task is always essentially one of appreciating the particular circumstances of the particular case” (H.M. Waldock, as cited by L.D.M. Nelson, “The Roles of Equity in the Delimitation of Maritime Boundaries” (1990) 84 Am. J. Int’l L. 837, at 839).

⁶⁹³ Kolb, *supra* note 587, at xxii.

⁶⁹⁴ Kolb, *ibid.* In *Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada v. United States of America)*, the ICJ stated: “Although the practice is still rather sparse, owing to the relative newness of the question, it too is there to demonstrate that each specific case is, in the final analysis, different from all the others, that it is monotypic and that, more often than not, the most appropriate criteria, and the method of combination of methods most likely to yield a result consonant with what the law indicates, can only be determined in relation to each particular case and its specific characteristics. This precludes the possibility of those conditions arising which are necessary for the formation of principles and rules of customary law giving specific provisions for subjects like those just mentioned” (*Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada v. United States of America)*, [1984] I.C.J. Rep. 246, para 81 at 290).

⁶⁹⁵ Kolb, *ibid.*

⁶⁹⁶ Kolb, *ibid.*, at 250-251. The Gulf Maine case states: “It cannot also be expected to specify the equitable criteria to be applied or the practical, often technical, methods to be used for attaining that objective – which remains simply criteria and methods even where they are also, in a different sense, called “principles” (*Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada v. United States of America)* *supra* note 694, para. 81 at 290).

⁶⁹⁷ Kolb, *ibid.*, at xxiii.

This notion of equity which emphasizes the result and is highly dependent upon the particular circumstances of the individual case, has been termed by Kolb as the theory of the *unicum*, and by Jennings as the doctrine of the equitable result. The role of equity, in this reasoning, is an autonomous equity acting “at first hand”.⁶⁹⁸ The notion of corrective equity was abandoned in favor of this autonomous equity because, as has been pointed out, it “is not valid in the field of continental shelf delimitation by reason simply of the absence of a general rule of law which is to be moderated or corrected in its concrete application.”⁶⁹⁹

This notion of autonomous equity was severely criticized by judges, practitioners, and scholars alike. It was qualified as “unstructured discretion”, an exercise of *ex aequo et bono*, distributive justice, and incompatible with the very concept of law.⁷⁰⁰ Judge Gros, in his dissenting opinion in the Gulf of Maine case, stated:

Controlled equity as a procedure for applying the law would contribute to the proper functioning of international justice; equity left, without any element of control, to the wisdom of the judge reminds us that equity was once measured by ‘the Cancellor’s foot’; I doubt that international justice can long survive an equity measured by the judge’s eye. When equity is simply a reflection of the judge’s perception, the courts which judge in this way part company from those which apply the law.⁷⁰¹

Sir Jennings, in turn, stated that

[t]he doctrine of the ‘equitable result’ (...), leads straight into pure judicial discretion and a decision based upon nothing more than the court’s subjective appreciation of what appears to be a ‘fair’ compromise of the claims of either side.⁷⁰²

States parties to disputes, in turn, have claimed that

(...) an excessive individualization of the rule of law, which changes from one case to another, would be incompatible with the very concept of law. Every legal rule presupposes a minimum of generality. A rule which is elaborated on a case

⁶⁹⁸ Kolb, *ibid*, at xxii.

⁶⁹⁹ Separate Opinion of Judge Jimenez de Arechaga in *Continental Shelf (Tunisia v. Libyan Arab Jamahiriya)*, *supra* note 602, para. 21 at 105.

⁷⁰⁰ Jennings, *supra* note 582, at 37.

⁷⁰¹ Dissenting opinion of Judge Gros in *Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada v. United States of America)*, *supra* note 694, para. 41, as cited in Kolb, *supra* note 587, at 275.

⁷⁰² Jennings, *supra* note 582, at 30.

by case basis rests on the discretionary power of the judge, on conciliation, on distributive justice – in brief, on *ex aequo et bono*.⁷⁰³

This line of jurisprudence was reversed in the 1985 judgment on the *Continental Shelf (Libyan Arab Jarnahiriya v. Malta)*.⁷⁰⁴ In this judgment, the Court ruled:

Thus the justice of which equity is an emanation, is not abstract justice but justice according to the rule of law; which is to say that its application should display consistency and a degree of predictability; even though it looks with particularity to the peculiar circumstances of an instant case, it also looks beyond it to principles of more general application. This is precisely why the courts have, from the beginning, elaborated equitable principles as being, at the same time, means to an equitable result in a particular case, yet also having a more general validity and hence expressible in general terms; for, as the Court has also said, "the legal concept of equity is a general principle directly applicable as law (*I.C.J. Reports 1982*, p. 60, para. 71)".⁷⁰⁵

Thus, as Kolb notes, the ICJ judgment asserts that there are principles that are equitable in themselves and could thus be used as direction-finders for the purpose of achieving an equitable result.⁷⁰⁶ These principles once again took on the character of legal norms, albeit highly open and flexible ones.⁷⁰⁷

The equitable principles that act as direction-finders to achieve an equitable result have been identified by the ICJ as the following:

- a) the principle that there is to be no question of refashioning geography, or compensating for the inequalities of nature;
- b) the related principle of non-encroachment by one party on the natural prolongation of the other, which is no more than the negative expression of the positive rule that the coastal State enjoys sovereign rights over the continental shelf off its coasts to the full extent authorized by international law in the relevant circumstances;
- c) the principle of respect due to all such relevant circumstances;
- d) the principle that although all States are equal before the law and are entitled to equal treatment, "equity does not necessarily imply equality [...], nor does it seek to make equal what nature has made unequal; and

⁷⁰³ *Continental Shelf (Libyan Arab Jarnahiriya v. Malta)*, Counter-memorial submitted by the Republic of Malta (26 October 1983) [1983] I.C.J. Pleadings (vol. 1) 58, para. 111, as cited in Nelson, *supra* note 692, at 841.

⁷⁰⁴ *Continental Shelf (Libyan Arab Jarnahiriya v. Malta)*, *supra* note 684.

⁷⁰⁵ *Ibid*, para. 45 at 39.

⁷⁰⁶ Kolb, *supra* note 587, at xxiii.

⁷⁰⁷ *Ibid*, at xxiii.

e) the principle that there can be no question of distributive justice.⁷⁰⁸

In addition, the ICJ qualified the relevant circumstances that can be taken into account in the application of a legal concept of equity, by stating that

[f]or a court, although there is assuredly no closed list of considerations, it is evident that only those that are pertinent to the institution of the continental shelf as it has developed within the law, and to the application of equitable principles to its delimitation, will qualify for inclusion.⁷⁰⁹

In the process of identifying equitable principles and the relevant circumstances that need to be taken into account to achieve an equitable result, the ICJ moved away from autonomous or discretionary equity, towards a concept of equity based on the rule of law.⁷¹⁰

As noted by Weil, the *Continental Shelf (Libyan Arab Jarnahiriya v. Malta)* case did not attempt to “integrate principles of equity into the law has not been extended to methods of delimitations,”⁷¹¹ a situation that he certainly criticizes considering that method permits putting equity into practice.⁷¹² This situation appears to be changing, since recent judgments have relied upon the use of equidistance to draw a provisional line, and to special circumstances to adjust the provisional line, if required– the equidistance/relevant circumstance rule.⁷¹³

Weil, analyzing the normativity content of the concept of equity as applied in maritime delimitation law, states that when law of maritime delimitation contains no rule of law other than the “fundamental norm” (or what Kolb called autonomous equity), its level of normativity is at its lowest. A little higher on the scale of normative density is the approach which includes the definition of equitable principles within the legal framework. And at the highest level of all, the legal field is broadened to include, in addition to the definitions of equitable principles and relevant circumstances, the methods themselves.⁷¹⁴

⁷⁰⁸ *Continental Shelf (Libyan Arab Jarnahiriya v. Malta)*, *supra* note 684, para. 46 at 39.

⁷⁰⁹ *Ibid.*, para. 48 at 40.

⁷¹⁰ See: Kolb, *supra* note 587, at xx.

⁷¹¹ Weil, *supra* note 605, at 183.

⁷¹² *Ibid.*, at 184.

⁷¹³ Kolb, *supra* note 587, at 536.

⁷¹⁴ Weil, *supra* note 605, at 161 and 162.

As a summary, a normative concept of equity requires the definition of equitable principles, relevant circumstances, and equitable methods to achieve at an equitable result. Van Dijk, using a different terminology, arrives at the same conclusion: a normative content of equity requires the definition of some substantive and procedural criteria by which the equity standard can be objectified.⁷¹⁵

Sir Jennings, similarly, identifies three normative elements of an apparatus of decision according to equity: the legal rule to be applied, the appreciation of the particular facts, and the application of known equitable criteria relevant to those facts. He acknowledges that in the final stage of the decision there must be an area of judicial discretion.⁷¹⁶ However, he highlights that “this equitable procedure is now looking very different from the decision *ex aequo et bono*”.⁷¹⁷ A normative, or controlled, equity “possesses or acquires certain coherence and predictability”⁷¹⁸ which are, indeed, characteristic of the rule of law.

The Relevant Circumstances

It has been noted already that the application of equity in maritime delimitation requires to take into consideration all relevant circumstances, and that although there is no closed list of such circumstances, only those that are pertinent to the legal institution are to be considered legally relevant to that effect. Several authors, on the basis of several judgments, have broadly categorized circumstances that are deemed relevant. A first classification is usually made between geographical and non-geographical factors. Geographical factors are considered the primary factors to be taken into account in the resolution of conflicts of delimitation of areas under sovereignty or sovereign rights of States.⁷¹⁹ Among non-geographical factors, the following are mentioned: socio-economic factors, conduct of parties, historic rights, security interests, navigation, environmental factors, and traditional livelihood.

⁷¹⁵ P. Van Dijk, “Nature and Function of Equity in International Economic Law” (1986) 7 *Grotiana* 3, at 6.

⁷¹⁶ Jennings, *supra* note 582, at 35.

⁷¹⁷ *Ibid.*

⁷¹⁸ Kolb, *supra* note 587, at 317.

⁷¹⁹ See, for example: *Case concerning the delimitation of maritime spaces between Canada and France (St. Pierre et Miquelon)*, para. 83, as cited by Kolb, *ibid.*, at 418-419.

Because of their usefulness for the analysis of allocation of fishing opportunities, two of them will be addressed in more detail: the socio-economic factors, and the conduct of parties, or historic rights.

a) The Socio-Economic Factors

It has been already explained that the ICJ makes a distinction between equitable delimitation of an area already, in principle, appertaining to the coastal State, and the apportionment of a “just and equitable share” of a previously undelimited area.⁷²⁰ The latter is considered an exercise of distributive justice. It has also been mentioned that the principle that there can be no question of distributive justice has resulted in a refusal to take social and economic factors into consideration in the settlement of maritime boundary delimitation disputes. This is the time to take a closer look at this issue.

As a general statement, it is often said that economic factors are not considered relevant circumstances by the ICJ and thus, that they have no influence in the maritime delimitation process. However, a more precise analysis of the jurisprudence warrants a distinction. This distinction is based on two different contents of the socio-economic considerations, which Tanaka calls socio-economic factors and economic factors in a strict sense. The socio-economic factors include economic dependency on natural resources, and national economic wealth. The economic factors in strict sense include the existence of natural resources (such as oil, gas, and fish) in the disputed area.

The analysis of the jurisprudence allows concluding that the ICJ has consistently rejected socio-economic factors as relevant circumstances in maritime delimitation disputes.⁷²¹ It has been ascertained that those factors are foreign to the legal basis of the

⁷²⁰ *North Sea Continental Shelf cases (Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands)*, *supra* note 600, para. 18 at 22.

⁷²¹ In the *Continental Shelf (Libyan Arab Jarnahiriya v. Malta)*, *supra* note 684, the ICJ decided: “The court does not however consider that a delimitation should be influenced by the relative economic position of the two States in question, in such a way that the area of continental shelf regarded as appertaining to the less rich of the two States would be somewhat increased in order to compensate for this inferiority in economic resources. Such considerations are totally unrelated to the underling intention of the applicable rules of international law. It is clear that neither the rules determining the validity of legal entitlement to the continental shelf, nor those concerning delimitation between neighbouring countries, leave room for any considerations of economic development of the States in question.” See also: Weil, *supra* note 605, at 262.

title,⁷²² and that political and economic considerations are not proper for a judicial organ.⁷²³ It has also been justified in that social and economic factors are variable and even unpredictable.⁷²⁴

In contrast, economic factors in a strict sense have had a role, albeit very limited, in maritime delimitations. In the *North Sea Continental Shelf cases*, the ICJ accepted that, as far as known or readily ascertainable, the existence of natural resources constitutes a factor to be taken into account in a negotiation.⁷²⁵ That opinion was repeated in subsequent judgments.⁷²⁶ However, albeit recognizing economic factors in a strict sense as relevant circumstances, they actually have not been applied for delimitation.⁷²⁷ Three exceptions can be cited in this respect: the *Gulf of Maine case*, the *St. Pierre and Miquelon case*, and the *Greenland/Jan Mayen case*.

In the *Gulf of Maine case*, the Chamber did not consider socio-economic factors in the operational stage of the delimitation, but did consider them during the verification stage when testing the equitableness of the boundary established. The Chamber verified if the result was “radically inequitable, that is to say, as likely to entail catastrophic repercussions for the livelihood and economic well-being of the populations of the countries concerned.”⁷²⁸ The ICJ was convinced that the boundary drawn by geographical

⁷²² Weil, *ibid*, at 258. In this respect, he states: “In short, resources are where they are, and the boundary is where it is” (Weil, *ibid*, at 259).

⁷²³ *Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada v. United States of America)* *supra* note 694.

⁷²⁴ In the *Continental Shelf (Tunisia v. Libyan Arab Jamahiriya)* case, the Court held that “these economic considerations cannot be taken into account for the delimitation of the continental shelf areas appertaining to each Party. They are virtually extraneous factors since they are variables which unpredictable national fortune or calamity, as the case may be, might at any time cause to tilt the scale one way or the other. A country might be poor today and become rich tomorrow as a result of an event such as the discovery of a valuable economic resource.” (*Continental Shelf (Tunisia v. Libyan Arab Jamahiriya)*, *supra* note 602, para. 107 at 77).

⁷²⁵ *North Sea Continental Shelf cases (Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands)*, *supra* note 600, para. 101, subparagraph D(2), at 54.

⁷²⁶ In the *Continental Shelf (Tunisia v. Libyan Arab Jamahiriya)* case, albeit rejecting “economic considerations” as a relevant factor, the ICJ noted that “as to the presence of oil-wells in an area to be delimited, it may, depending on the facts, be an element to be taken into account in the process of weighing all relevant factors to achieve an equitable result.” (*Continental Shelf (Tunisia v. Libyan Arab Jamahiriya)*, *supra* note 602, para. 107 at 77-78).

⁷²⁷ Weil asserts that: “from 1969 to 1985, the rule remained immutable: economic factors are not circumstances which the courts can take into account in assessing the equitableness of an initial line of equidistance” (Weil, *supra* note 605). He notes that this principle not only arises from the ICJ judgments, but also from general State practice (*ibid*, at 259).

⁷²⁸ *Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada v. United States of America)*, *supra* note 694, para. 237 at 342.

criteria alone did not produce those results. However, through this *a posteriori* test, it introduced social and economic factors in the maritime delimitation process, albeit in a rather limited way. Equity, in this approach of the ICJ, requires a “negative minimum”: avoidance of catastrophic repercussions. In this limited way, “the old restrictive attitude to socio-economic factors, feared to open an excessively wide path towards the redistribution of wealth, was translated into the strictly negative configuration of this new *ex post facto* test.”⁷²⁹

This “negative minimum” was to be applied, once again, in the *St. Pierre et Miquelon (Canada v. France) case*.⁷³⁰

A different approach was taken in the *Greenland/Jan Mayen case*. In this case, the ICJ actively adjusted the boundary so as to ensure equitable access to the important capelin (fish) resources. Although justified in certain particular circumstances of this case,⁷³¹ the decision has been harshly criticized as intruding in the realm of distributive justice.⁷³²

In summary, with respect to the role of economic and social factors in the process of judicial maritime delimitation, a distinction has been made between socio-economic factors, and economic factors in strict sense (which relate to the presence of natural resources in the disputed area). The position of the ICJ has been to deny a role to socio-economic factors as maritime delimitation excludes questions on distributive justice. Economic factors in a strict sense have been, theoretically, considered relevant circumstances. It has been recognized that in practice, the sharing of resources “cannot be ignored since it is in reality the heart of the matter [of maritime delimitation].”⁷³³ However, the ICJ has, in most cases, afforded these factors a very modest role in the adjudicatory process.

⁷²⁹ Kolb, *supra* note 587, at 271.

⁷³⁰ See: *Case concerning the delimitation of maritime spaces between Canada and France (St. Pierre et Miquelon)*, para. 83 and 84, as cited by Kolb, *ibid*, at 418.

⁷³¹ It has been pointed out that the Court was not requested to draw a single maritime boundary but to create one boundary for the continental shelf and one for the fishing zones, which would coincide (Yoshifumi Tanaka, *Predictability and Flexibility in the Law of Maritime Delimitation* (Oxford; Portland, Or.: Hart, 2006) at 272). It has been also noted that scientific knowledge allowed determining the seasonal migration patterns of capelin (Tanaka, *ibid*). Furthermore, it has been noted that the case was a conciliation process not intended to produce a legal solution (Weil, *supra* note 605, at 264).

⁷³² See: Tanaka, *ibid*, at 272. Another criticism is that the judgment does not define what equitable access is (*ibid*).

⁷³³ Weil, *supra* note 605, at 264. See also: Tanaka, *ibid*, at 287-288.

b) Historical Rights and Prior Uses

In many conflicts on maritime delimitation, States have justified their claims on the basis of historical rights or conduct of the parties. In several cases, those rights and conduct were based on the development of fishing activities. That was the case, for example, in the *Continental Shelf (Tunisia v. Libyan Arab Jamahiriya)* case, the *Gulf of Maine case (Canada v. U.S.A)*. The argument of the parties in those cases was to assert their presence in a disputed area, with the consent or at least tolerance of the other party to the dispute.

In the *Continental Shelf (Tunisia v. Libyan Arab Jamahiriya)* case, the ICJ recognized the importance of the conduct of the parties as a legal circumstance. The ICJ noted that “historic rights must enjoy respect and be preserved as they have always been by long usage”. The judgment applies the “well established principle of the law of nations that the state of things that actually exists and has existed for a long time should be changed as little as possible,” already asserted in the *Grisbådarna case*.⁷³⁴ The Court considered it unnecessary, however, to make a reference to these historical rights in the operational part of the judgment.⁷³⁵

In further cases, the ICJ has either disregarded historical presence in the disputed areas, or considered that the maritime boundary delimitation was independent, or not conditioned, by the findings of historical or traditional fishing regimes.⁷³⁶

Weil argues that “not only did the Chamber in Gulf of Maine reject the arguments of the parties based on their previous conduct, but it was careful to make it clear that equity

⁷³⁴ Arbitral Award rendered on October 23, 1909, in the matter of the delimitation of a certain part of the maritime boundary between Norway and Sweden (*Grisbådarna case (Norway v. Sweden)*), unofficial English translation, at 6, online: Permanent Court of Arbitration <<http://www.pca-cpa.org>>. The Arbitral Award actually adds: “this principle is especially applicable in the case of private interests which, once disregarded, cannot be effectively preserved by any manner of sacrifice on the part of the Government of which the interested parties are subjects” (*Grisbådarna case (Norway v. Sweden)*, *ibid*).

⁷³⁵ Tanaka, *supra* note 731, at 306. Weil, commenting on the same judgment, notes that ICJ considered that a *de facto* line was established between the two parties through their conduct, and respected this *de facto* line in its delimitation (Weil, *supra* note 605, at 257-258).

⁷³⁶ Weil, *ibid*, at 302-305. They were not given any effect in the *Continental Shelf (Tunisia v. Libyan Arab Jamahiriya)* case, *supra* note 602. In the Gulf of Maine case, the ICJ ruled that that “it could not ascribe any decisive weight, for the purposes of the delimitation it is charged to carry out, to the antiquity or continuity of fishing activities carried on in the past within that part of the delimitation area which lies outside the closing line of the Gulf.” The argument for the Court was, however, not on the basis of the lack of merit of historical presence, but related to the change of legal regime that affected the area, formerly high seas and currently EEZ. (See: *Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada v. United States of America)*, *supra* note 694, para. 235 at 341-342).

did not require that present exploitation practices be maintained in the future.”⁷³⁷ In his view, accepting the conduct of the parties would result in including efficiency as one criterion for maritime boundary delimitation, in circumstances that occupation does not constitute a legal title.⁷³⁸ Therefore, he concludes that this “questionable relevant circumstance is likely, from now on, to come into play only very exceptionally.”⁷³⁹

In the same line, Tanaka acknowledges a theoretical incompatibility between the consideration of historic rights and the *ipso facto* and *ab initio* nature of the continental shelf rights.⁷⁴⁰ However, his view is that the limited jurisprudence and the lack of general views of the Court in relation to the relevance of historic rights in maritime delimitation, joined by an unclear State practice, do leave the issue unsettled.⁷⁴¹

Section 5. The Principle of Equitable Utilization in the Law of Non-Navigational Uses of International Watercourses

Equitable utilization (also referred to as “equitable use” or “equitable and reasonable utilization”⁷⁴²) is a legal standard (“principle”) for allocation of resources and benefits. It has been characterized as “a maxim which implies that the use of a common resource by each country, while aiming in principle at optimum exploitation, must be compatible with the safeguard of the interests of other countries concerned, on the basis of the conjunction of a series of criteria which vary according to the particular situation”.⁷⁴³

Equitable utilization is widely included in international law as the guiding principle for the use of, access to and sharing of shared resources. It has been included in

⁷³⁷ Weil, *ibid.*, at 257-258. Kolb, in the same sense, states that the ICJ explicitly rejected the idea of guaranteeing the *status quo*, which would have meant “according the fisheries the status of prescriptive rights” (Kolb, *supra* note 587, at 271).

⁷³⁸ Weil, *ibid.*, at 92. He cites the ICJ as stating: “the right over the continental shelf does not depend on its being exercised”.

⁷³⁹ *Ibid.*, at 258.

⁷⁴⁰ Tanaka, *supra* note 731, at 306.

⁷⁴¹ *Ibid.*

⁷⁴² Equitable and reasonable use is used here as a name for one legal standard, equivalent to equitable utilization. It will be explained further below that most authors considered equitable use and reasonable use are two different, albeit related, standards.

⁷⁴³ Günther Handl, “The Principle of ‘Equitable Use’ as applied to internationally shared natural resources: its role in resolving potential international disputes over transfrontier pollution” (1978-79) 14 *Revue belge de droit international* 40, at 47.

the UNEP Environmental Guidelines and Principles on Shared Natural Resources.⁷⁴⁴ It is also considered as a guiding principle for the allocation of radio-frequency spectrum and any associated orbits, including the geostationary-satellite orbit.⁷⁴⁵ But it is in the area of the law of non-navigational uses of international watercourses where the concept has been considered to have originated.⁷⁴⁶ The legal principles of law applicable in this field are considered as the “archetypical” for the international law of shared natural resources.⁷⁴⁷ In addition, its importance in this field has been underlined by extended State practice, several binding⁷⁴⁸ and non-binding⁷⁴⁹ international instruments, inter-State and international jurisprudence, the work and commentaries of the International Law Commission⁷⁵⁰ and the International Law Association,⁷⁵¹ and considerable scholarly work.

⁷⁴⁴ Principle 1 of the 1978 Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Shared Resources, adopted by the United Nations Environmental Program (UNEP) Government Council, 17 ILM 1094 (1978).

⁷⁴⁵ Articles 12 and 44 of the *Convention of the International Communication Union*, 22 December 1992, ATS (1994) 28; BTS 24 (1996) (entered into force 1 July 1994). See: separate opinion of Judge Weeramantry in the *Case Concerning Maritime Delimitation in the Area between Greenland and Jan Mayen (Denmark v. Norway)*, *supra* note 576, at 247.

⁷⁴⁶ French, *supra* note 586, at 6.

⁷⁴⁷ Juha Rainne, “The Work of the International Law Commission on Shared Natural Resources: The Pursuit of Competence and Relevance” (2006) 75 *Nordic Journal of International Law* 321, at 324.

⁷⁴⁸ *Convention on the Law of the Non-Navigational Uses of International Watercourses*, 21 May 1997, 36 ILM 700 (1997); UN Doc A/RES/51/229 (1997) [hereafter 1997 Watercourse Convention], article 5; 1992 Helsinki Water Convention, *supra* note 468, article 2.2(c). The principle is also included in the Draft articles of the International Law Commission on transboundary aquifers (article 4 of the Draft articles on the Law of Transboundary Aquifers, Text adopted by the International Law Commission at its sixtieth session, in 2008, and submitted to the General Assembly as a part of the Commission’s report covering the work of that session. The report, which also contains commentaries on the draft articles, appears in *Official Records of the General Assembly, Sixty-third Session, Supplement No.10 (A/63/10)*).

⁷⁴⁹ ILA, *Helsinki Rules on the Uses of the Waters of International Rivers*, adopted by the International Law Association at the fifty-second Conference, held at Helsinki in August 1966 [hereafter 1966 Helsinki Rules], article 4; ILA, *Berlin Rules on Water Resources*, International Law Association, Report of the 71st Conference 3 (2004); 71 ILA 337, 385 (2004) [hereafter 2004 Berlin Rules], article 12.

⁷⁵⁰ The International Law Commission (ILC) was established by Resolution 174(III) of 21 November 1947, to promote the progressive development of international law and its codification (UN General Assembly, *Resolution 174(III) on Establishment of a Law Commission*, adopted at the 123^d Plenary Meeting on 21 November 1947, online: ILC <<http://www.un.org/law/ilc>>).

⁷⁵¹ The International Law Association (ILA) is a scholarly non-governmental organization founded in Brussels in 1873, which objective is the “study, clarification and development of international law, both public and private, and the furtherance of international understanding and respect for international law” (online: ILA <<http://www.ila-hq.org>>).

Equitable Utilization: Theoretical Foundation

The principle of equitable and reasonable utilization finds its legal and theoretical basis in the doctrine of limited territorial sovereignty, widely accepted by States as the basis upon which the substantive rules of international watercourse have evolved.⁷⁵² The doctrine of limited territorial sovereignty means that: a) watercourse States enjoy equal rights to the utilization of an international watercourse; and b) each watercourse State must respect the correlative rights of other watercourse States.⁷⁵³ The doctrine relies, thus, on the notion of equality of rights. As stated in the *Gabcikovo-Nagymaros case*, each riparian State has a right to the use of the international watercourse that is perfectly equal to the right of any other riparian State, which excludes any preferential privilege of any one in relation to the others.⁷⁵⁴ As a consequence, no State has an inherently superior claim to the use of the watercourse.⁷⁵⁵ It has been stressed, however, that equality of right does not mean equal apportionment of water.⁷⁵⁶

This equality not only provides an equal right to use the waters, but also imposes the obligation to recognize the equal sovereignties of other States. Thus, riparians have reciprocal rights and duties in the use of waters of international watercourses.⁷⁵⁷

A consequence of the legal acceptance of the theory of limited territorial sovereignty is the recognition of two guiding principles for decisions on non-navigational uses of international watercourses, and the apportionment of water resources among States: the principle of equitable utilization, and the principle of no harm.

⁷⁵² Rieu-Clarke, *supra* note 632, at 101-102; Jerome Lipper, "Equitable Utilization", in A.H. Garretson, R.D. Hayton and C.J. Olmstead (eds.), *The Law of International Drainage Basins* (New York: New York University School of Law, 1967) 15, at 62-63; Stephen C. McCaffrey, *The Law of International Watercourses*, 2d ed. (Oxford; New York: Oxford University Press, 2007) at 384-385. The doctrine of limited territorial sovereignty is a compromise solution between the extreme doctrines of absolute territorial sovereignty and absolute territorial integrity, also advocated in the past as the justification of States' entitlement to the use of the international watercourse. The doctrine of absolute territorial sovereignty, or Harmon doctrine, postulates that the riparian State enjoys unlimited use of the international watercourse "regardless of the needs and concerns of other watercourse States" (Rieu-Clarke, *ibid*). The doctrine of absolute territorial integrity "prohibits an upstream State from interfering with the natural flow and conditions of an international watercourse" (Rieu-Clarke, *ibid*).

⁷⁵³ Rieu-Clarke, *ibid*, at 101.

⁷⁵⁴ See: McCaffrey, *supra* note 752, at 389-390, and particularly the *Gabcikovo-Nagymaros Project (Hungary v. Slovakia)*, *supra* note 632, para.85 at 56.

⁷⁵⁵ McCaffrey, *ibid*, at 391.

⁷⁵⁶ *Ibid*, at 391.

⁷⁵⁷ Ibrahim Kaya, *Equitable Utilization: The Law of the Non-Navigational Uses of International Watercourses* (Aldershot, England; Burlington, VT: Ashgate, 2003), at 73.

Both are considered part of customary international law of non-navigational uses of international watercourses.⁷⁵⁸ As such, they were included in the “earliest complete formulation of this body of law”⁷⁵⁹: the Helsinki Rules on the Uses of International Rivers, adopted by the International Law Association in 1966 (1966 Helsinki rules).⁷⁶⁰ They were also included in the 1997 United Nations Convention on the Law of the Non-navigational Uses of International Watercourses (1997 Watercourse Convention),⁷⁶¹ text prepared by the International Law Commission over a period of almost three decades. They were, as well, included in the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes.⁷⁶²

In 2004, ILA reformulated the Helsinki rules, consolidating it with the various supplementary rules approved by the Association since 1966, and including in their formulation some developments in the field of international environmental law and international human rights law that were absent in the earlier formulation. In addition, it expanded the scope of the rules to address the obligations of customary international law that govern the management of waters within the State as well as transboundary waters (and including groundwater).⁷⁶³ The work was approved by the Association as the 2004 Berlin Rules on Water Resources (2004 Berlin rules).⁷⁶⁴ Again, the text recognizes equitable utilization and the principle of no harm as substantive norms governing the relationships between States in the law of non-navigational uses of international watercourses.⁷⁶⁵

⁷⁵⁸ Rieu-Clarke, *supra* note 632, at 102.

⁷⁵⁹ Joseph Dellapenna, “The Berlin Rules on Water Resources: The New Paradigm for International Water Law” (Paper presented to the 2006 Proceedings of the World Environmental and Water Resources Congress, May 21-25, 2006)[unpublished].

⁷⁶⁰ 1966 Helsinki Rules, *supra* note 749.

⁷⁶¹ 1997 Watercourse Convention, *supra* note 748.

⁷⁶² 1992 Helsinki Water Convention, *supra* note 468.

⁷⁶³ See: 2004 Berlin Rules, *supra* note 749, at article 1 and commentary. See also: Dellapenna, *supra* note 759.

⁷⁶⁴ Berlin Rules, *ibid*. It should be noted that, in addition to these global instruments, several regional agreements have been signed in the field. Particular mention deserves the 1992 Helsinki Water Convention, *supra* note 468.

⁷⁶⁵ There is a still unsolved controversy on the relationship between the principle of equitable and reasonable utilization and the principle of no significant harm. This controversy, it has been argued, is the responsible of the lack of ratifications of the 1997 Watercourse Convention. Since this debate only indirectly affects the analysis attempted in this chapter, it won’t be addressed.

Equitable Utilization in International Law of Watercourses

The principle entails recognition of the real and substantial interests of all States involved, and of the need to “reconcile those interests as best they may”.⁷⁶⁶ It requires, thus, an “exercise of an informed judgment on a consideration of many factors.”⁷⁶⁷ As summarized by the United States Supreme Court, it is “a flexible doctrine which calls for the ‘exercise of an informed judgment on a consideration of many factors’ to secure ‘a just and equitable’ allocation.”⁷⁶⁸

A first thing that should be noted is that the standard in all these documents is the “equitable and reasonable use”. For example, article 5 of the 1997 Watercourse Convention reads:

Equitable and reasonable utilization and participation

1. Watercourse States shall in their respective territories utilize an international watercourse in an equitable and reasonable manner. In particular, an international watercourse shall be used and developed by watercourse States with a view to attaining optimal and sustainable utilization thereof and benefits therefrom, taking into account the interests of the watercourse States concerned, consistent with adequate protection of the watercourse.

2. Watercourse States shall participate in the use, development and protection of an international watercourse in an equitable and reasonable manner. Such participation includes both the right to utilize the watercourse and the duty to cooperate in the protection and development thereof, as provided in the present Convention.⁷⁶⁹

The terms equitable and reasonable can be considered synonyms, since one of the meanings of equity is “fairness, reasonableness.”⁷⁷⁰ However, most authors considered that the term involves two different standards: the use of international watercourses must

⁷⁶⁶ *New Jersey v. New York*, 283 U.S. 336 (1931), as cited by McCaffrey, *supra* note 752, at 386.

⁷⁶⁷ *Nebraska v. Wyoming*, 325 U.S. 589 (1945), modified, 345 U.S. 981 (1953), as cited by McCaffrey, *ibid*, at 386.

⁷⁶⁸ *Colorado v. New Mexico*, 459 U.S. 176, 183 (1982), as cited by McCaffrey, *ibid*, at 387.

⁷⁶⁹ The 1966 Helsinki Rules, *supra* note 749, article IV, established: “Each basin State is entitled, within its territory, to a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin.” More pointed, the 2004 Berlin Rules, *supra* note 749, read in article 12 on equitable utilization: “1. Basin States shall in their respective territories manage the waters of an international drainage basin in an equitable and reasonable manner having due regard for the obligation not to cause significant harm to other basin States.” The 1992 Helsinki Water Convention states that parties should take measures to “ensure that transboundary waters are used in a reasonable and equitable way, taking into particular account their transboundary character, in the case of activities which cause or are likely to cause transboundary impact” (1992 Helsinki Water Convention, *supra* note 468, article 2(2) subparagraph c).

⁷⁷⁰ See: Schachter, *supra* note 19, at 55. Rieu-Clarke also notes that the “notions of ‘equity’ and ‘reasonableness’ are not clearly distinguished in international agreements and discourse” (Rieu-Clarke, *supra* note 632, at 105).

be both equitable *and* reasonable. While the equitable use standard looks at the quantity of water *vis-à-vis* the requirements of other States, reasonable use looks at what the State in question does with the water.⁷⁷¹ Some authors consider that a use, in order to be equitable, needs to be reasonable.

A second aspect that is important to remark is that the standard of “equitable and reasonable use” is applicable only in cases of conflict of interests among riparian States, i.e., when one or more of the riparian States is not able to satisfy its needs as a result of another State’s use of the international watercourse. In the absence of such a conflict, each State, in the exercise of its sovereignty, is entitled to use the watercourse to satisfy its needs without substantive restrictions.

In this regard, it is also important to note that typically, those conflicts of interests will not arise simultaneously. The “questions involving the uses of the waters of a river will not arise among all the coriparian states at a particular point of time. On the contrary, a river will be developed gradually by the coriparian states, each moving forward at varying rates.”⁷⁷²

The Content of Equitable Utilization

It has been noted that equitable utilization requires an act of balancing the rights, interests and other relevant factors in the decisions on the non-navigational uses of international watercourses. International law provides some guidance on what the relevant actual circumstances may be. The 1997 Watercourse Convention includes a non-exhaustive list of factors that shall be taken into account while determining equitable and reasonable use in accordance with article 5. The factors in article 6 are the following:

- (a) Geographic, hydrographic, hydrological, climatic, ecological and other factors of a natural character;
- (b) The social and economic needs of the watercourse States concerned;
- (c) The population dependent on the watercourse in each watercourse State;
- (d) The effects of the use or uses of the watercourses in one watercourse State on other watercourse States;
- (e) Existing and potential uses of the watercourse;

⁷⁷¹ McCaffrey, *supra* note 752, at 389.

⁷⁷² Lipper, *supra* note 752, at 42.

- (f) Conservation, protection, development and economy of use of the water resources of the watercourse and the costs of measures taken to that effect;
- (g) The availability of alternatives, of comparable value, to a particular planned or existing use.

The 1966 Helsinki rules and 2004 Berlin rules also include similar factors.⁷⁷³ Neither the Convention nor any other document addresses the weight that each factor should have. On the contrary, the 1997 Watercourse Convention, following the Helsinki rules, states that

[t]he weight to be given to each factor is to be determined by its importance in comparison with that of other relevant factors. In determining what is a reasonable and equitable use, all relevant factors are to be considered together and a conclusion reached on the basis of the whole.⁷⁷⁴

This necessity of flexibility in the implementation of equitable utilization to particular situations is noted by all scholars. “It seems clear that the problems of each river are normally unique and general rules are valid only insofar as they are feasible in the particular situation.”⁷⁷⁵ McCaffrey even suggests that the indicative lists of factors in the Helsinki Rules and the 1997 Watercourse Convention are “neither exhaustive nor even necessarily fully relevant. Everything depends upon the unique characteristics of the case at hand.”⁷⁷⁶ This approach to equitable utilization resembles the theory of the

⁷⁷³ A noticeable difference between the factors included in the 1997 Convention and the 2004 Berlin Rules relate to the emphasis on environmental protection, which in turn is also reflected in a new relationship between the principle of equitable utilization and the obligation not to harm another basin State. Thus, the Berlin rules consider that, in determining equitable utilization, States must have due regard for the obligation not to cause significant harm to other basin States. In addition, it includes the following factors: the sustainability of proposed or existing uses; and the minimization of environmental harm (2004 Berlin Rules, *supra* note 749, article 13(2) subparagraphs h and i).

⁷⁷⁴ 1997 Watercourse Convention, *supra* note 748, article 6(3). See also: 1966 Helsinki Rules, *supra* note 749, article V(III), and 2004 Berlin Rules, *ibid*, article 13(3). The Convention adds that in the absence of agreement or custom to the contrary, no use of an international watercourse enjoys inherent priority over other uses (1997 Watercourse Convention, *ibid*, article 10.1). It prescribes, however, a special consideration, albeit not preference, to the requirements for water derived from vital human needs (article 10.2). The 2004 Berlin rules go further establishing a preference in this respect: States shall first allocate waters to satisfy vital human needs (2004 Berlin Rules, *ibid*, article 14.1). No other use or category of uses has a preference over any others (*ibid*, article 14.2). According to article 3.20 of the 2004 Berlin Rules, “Vital human needs” means waters used for immediate human survival, including drinking, cooking, and sanitary needs, as well as water needed for the immediate sustenance of a household. Commercial and recreational uses are thus not included in this concept (See: 2004 Berlin Rules, *ibid*, article 3, commentaries).

⁷⁷⁵ Lipper, *supra* note 752, at 42.

⁷⁷⁶ McCaffrey, *supra* note 752, at 401.

unicum that, according to Kolb, prevailed in the maritime delimitation case law during a time of the evolution of the legal standard.⁷⁷⁷

Not surprisingly, this lack of guiding rules for the balance of different relevant factors has been criticized. Bourne states that

[t]he substantive law on the utilization of the waters of international drainage basins is defined in the vague language of the doctrine of ‘equitable utilization’ and offers little guidance to states on how they may proceed lawfully with the utilization of these waters in their territories.

In the same line of thought, Hey, commenting on the 1997 Watercourse Convention, concludes that it “leaves watercourse states with the situation in which they are to balance the various interests in good faith, without any significant guidance, by way of substantive obligations, on how such balancing is to take place.”⁷⁷⁸

Fuentes, in turn, acknowledges the importance of the circumstances of the particular situation in the weighting and balancing of interests. However, she also postulates that some general guidelines can be drawn on the role that the prospective relevant factors may play in the process of determining an equitable utilization of an international watercourse. Those guidelines, it is asserted, should be followed by States and international tribunals when applying the rule of equitable utilization.⁷⁷⁹

The Relevant Circumstances

Fuentes identifies, in the 1997 Watercourse Convention, five different categories of relevant factors that are likely to be in issue in disputes concerning the utilization of international rivers. Those are:

- (a) the economic and social needs of the States;
- (b) existing uses;
- (c) local customs;
- (d) the efficiency of the different uses; and
- (e) the geography and hydrology of the river.

⁷⁷⁷ See: previous section.

⁷⁷⁸ Ellen Hey, “The Watercourses Convention: To What Extent Does it Provide a Basis for Regulating Uses of International Watercourses?” (1998) 7 RECIEL 291, at 294. In this regard, she adds that “without the prioritization of certain interests, such as vital human needs and the protection of the environment, the result is a situation in which no substantive guidance beyond that provided by customary international law is available to watercourse states” (*ibid*).

⁷⁷⁹ Fuentes, *supra* note 602, in particular at 340; McCaffrey states that “achieving equity is not an exercise in unguided discretion” (McCaffrey, *supra* note 752, at 405); Rieu-Clarke, *supra* note 632, at 110.

Because of their relevance to fisheries disputes, this thesis will analyze in this section the circumstances listed in paragraphs (a), (b), and (e), in a different order.

a) Geography and Hydrology of the River

Article 6 of the 1997 Watercourse Convention identifies, as one of the relevant factors or circumstances for the determination of an equitable utilization: a) the geography of the basin, including in particular the extent of the drainage area in the territory of each basin State; b) the hydrology of the basin, including in particular the contribution of water by each basin State; and c) the climate affecting the basin.⁷⁸⁰ Similar factors were included in the Helsinki and Berlin rules, although the Berlin rules included other environmental factors as a consequence in the emphasis on environmental protection, as well as concepts particular to groundwater.

The ILC considers that

‘Geographic’ factors include the extent of the international watercourse of each watercourse State; ‘hydrographic’ factors relate generally to the measurement, description and mapping of the waters of the watercourses; and ‘hydrological’ factors relate, *inter alia*, to the properties of the water, including water flow, and to its distribution, including the contribution of water to the watercourse by each watercourse state.⁷⁸¹

With respect to the weight of geographic, hydrographic and hydrological factors, Fuentes identifies two extreme positions that have been advocated by scholars. On one extreme, some scholars consider that geography and hydrology have no role to play in the determination of equitable utilization, need being the only factor relevant for allocation of water.⁷⁸² On the other extreme, some scholars consider that geographical and hydrological elements of an international watercourse are the most important criteria in the process of allocation as they are factors creating legal rights.⁷⁸³

The two positions relate to the unresolved issues underlying the legal status of shared natural resources.

Many States and scholars view transboundary resources as being within the sovereignty of each State, to the extent that the resource is located therein. There

⁷⁸⁰ 1997 Watercourse Convention, *supra* note 748, article 6(1) paragraphs a) to c).

⁷⁸¹ ILC Report 1994, as cited by Fuentes, *supra* note 602, at 394.

⁷⁸² Lipper, cited by Fuentes, *ibid*, at 395.

⁷⁸³ Chauhan, cited by Fuentes, *ibid*, at 395.

have been challenges to this notion for more than two centuries, however, by those who have claimed that no part of a shared resource can belong exclusively to the individual State if the entire resource extends over the territory of several States; instead, the resource must be considered the common property of all.⁷⁸⁴

While the first doctrine would naturally conclude that geography and hydrology are the main criteria for determining equitable use, the latter would deny them such a role.

The legal consequences of qualifying an international watercourse a shared resource, and particularly the legal consequences over territorial sovereignty, provoked considerable discussion in the ILC.⁷⁸⁵ A reference to shared resource included in earlier drafts was omitted from the final text. This circumstance, joined by State practice, allows Fuentes' conclusion that geography and hydrology have a role in the determination of equitable utilization.⁷⁸⁶ However, she denies it being a prominent role based on the fundamental principle of equality of rights.⁷⁸⁷ Her opinion, supported by federal jurisprudence, is that the appropriate role of the above mentioned criteria should be low in the hierarchy of relevant factors, and limited to adjusting provisional allocation figures established by other criteria. Furthermore, in her opinion, that adjustment should only operates in situations where the water is not enough to satisfy the requirements of all the parties.⁷⁸⁸

b) Prior and Existing Uses

The 1997 Watercourse Convention includes “existent and potential uses of the watercourse” as one of the factors and circumstances that needs to be taken into account while determining the equitable utilization of an international watercourse. An equivalent factor is included in the Berlin rules. This constitutes a partial innovation to the criterion included in the Helsinki rules, which emphasized past and current uses rather than ‘potential’ ones.⁷⁸⁹

⁷⁸⁴ Dinah Shelton, “International Cooperation on Shared Natural Resources” in Sharelle Hart (ed.), *Shared Resources: Issues of Governance* (Gland: IUCN, 2004) 1, at 13.

⁷⁸⁵ Fuentes, *supra* note 602, at 397.

⁷⁸⁶ *Ibid.*, at 397.

⁷⁸⁷ *Ibid.*, at 408.

⁷⁸⁸ *Ibid.*, at 408.

⁷⁸⁹ The 1966 Helsinki Rules consider as a factor the “past utilization of the waters of the basin, including in particular existing utilization” (1966 Helsinki Rules, *supra* note 749, article V(II), subparagraph 4). In the

Once again, different scholarly opinions exist on the weight that prior and existing uses deserve in the balancing act of determining an equitable utilization of watercourses. Some authors consider that past uses (historical entitlement) are the most important factor to be considered in the allocation of water resources.⁷⁹⁰ Most authors, however, conclude that affording a special protection to past uses is actually a contradiction to the principle of equitable utilization.⁷⁹¹ McCaffrey adds that it is unsound as a matter of both policy and law, since it would encourage a “race to the river” and reward the “winner” with absolute protection.⁷⁹²

Fuentes analyzes these arguments in the light of the jurisprudence in maritime boundary delimitation. She observes that

[w]hat these decisions make clear is that in a dispute over access and apportionment of natural resources, the historic argument based on utilization of the resource by the parties ought to be accompanied by and evaluated on the basis of other criteria, such as economic dependence and the vital needs of the population.⁷⁹³

On this basis, she concludes that existing uses as a relevant factor should not operate independently of the considerations of the social and economic needs of the parties.⁷⁹⁴ Nevertheless, she recognizes that existing uses generally create such dependency.⁷⁹⁵

commentaries to the 2004 Berlin Rules, the ILA noted that the future uses were not “explicitly” included in the Helsinki Rules.

⁷⁹⁰ Jimenez de Aréchaga, as cited by Fuentes, *supra* note 602, at 357. According to Fuentes, there are three main arguments in support of this opinion: the jurisprudence of the federal courts of the USA, the practice of States, and most importantly, the harmonization of the equitable use with the obligation not to cause significant harm to the other watercourse States. She counterarguments each of them, though, to conclude that prior uses, historical entitlement, has no special weight in the determination of equitable use (Fuentes, *ibid*, at 356-373).

⁷⁹¹ See: Fuentes, *ibid*, at 356. McCaffrey excludes both absolute and no protection to existing uses based on the rejection of the absolute territorial sovereignty and absolute territorial integrity, which as explained above, have been abandoned precisely in favor of the doctrine of equitable utilization (McCaffrey, *supra* note 752, at 397).

⁷⁹² McCaffrey, *ibid*, at 397.

⁷⁹³ Fuentes, *supra* note 602, at 372.

⁷⁹⁴ *Ibid*, at 373.

⁷⁹⁵ *Ibid*, at 373.

c) Economic and Social Needs of the States

The social and economic needs of the watercourse States concerned, including the population dependent on the watercourse in each of the watercourse States and the availability of alternatives, are recognized explicitly as relevant factors in the determination of the equitable utilization of the international watercourse.⁷⁹⁶

It has already been noted that the inclusion of socio-economic aspects does not transform the decision from a legal to a political one.⁷⁹⁷ In this respect, Fuentes makes a distinction between relevant and non-relevant social and economic factors.⁷⁹⁸ The concept of non-pertinent socio-economic criteria refers to the comparison between levels of economic development of the States concerned.⁷⁹⁹ As non-pertinent factors, she denies them a role in the legal principle of equitable utilization. The pertinent socio-economic factors, in turn, relate to social and economic needs of the parties in so far as the satisfaction of these needs depends on the use of the disputed waters.⁸⁰⁰

The distinction drawn by Fuentes coincides, in general terms, with the distinction between socio-economic factors and economic factors in strict sense identified by Tanaka in the field of maritime boundary delimitation. And as in the case of maritime delimitation, social-economic factors in a broad sense are denied a role and considered a matter of world politics. Economic factors in strict sense not only are recognized as having a role in determining equitable utilization, but indeed are considered the most relevant factors to be considered in disputes concerning water use.⁸⁰¹ In this respect, their relevance is more significant than the role played in maritime boundary delimitation.

In this regard, it is worth mentioning a study undertaken by Aaron Wolf in which he described the practice of international water allocations as exemplified in 49 treaties

⁷⁹⁶ See: 1997 Watercourse Convention, *supra* note 748, Article 6(b), (c) and (g); and Fuentes, *ibid*, at 340.

⁷⁹⁷ See: section 4 above.

⁷⁹⁸ Fuentes, *supra* note 602, at 342.

⁷⁹⁹ *Ibid*, at 343.

⁸⁰⁰ *Ibid*, at 344. Drawing from jurisprudence and the international instruments, she identifies six sub-factors that should be taken into account: the determination of the territorial extent of the needs; the population dependent on the waters of the river; the extent of irrigated and irrigable land; the extent of the economy of the States that is dependent on the river; and the existence of alternative resources; and the existence of alternative means to satisfy the needs of the States, other than alternative sources of water supplies (*ibid*, at 345-351).

⁸⁰¹ *Ibid*, at 411.

that address the question of allocation of water resources.⁸⁰² As a general trend observed during this analysis, he notes that: “[a] tendency for a shift in positions to occur during negotiations, from ‘rights-based’ criteria, whether hydrography or chronology, towards ‘needs-based’ values, based on e.g., irrigable land or population.”⁸⁰³ Since this shift is perceived in the negotiation process, it can be justified in negotiation strategy or practical advantages.⁸⁰⁴ However, if the observed trend is accurate, it reflects the relative importance of social and economic needs in the allocation of international watercourses.

Concluding Remarks

Equitable and reasonable utilization is widely considered a legal standard for the determination of the use of an international watercourse. However, its precise content is open. It requires the consideration of all the relevant factors, but identification of the relevant factors, and how much weight they should be afforded, depend on the specific situation. The concept of equitable utilization thus resembles the autonomous equity mentioned in previous sections.

Nevertheless, the principle relies upon some principles or doctrines of international law: the limited territorial sovereignty doctrine, and their corollaries of equality of rights of all riparian States, and correlative duties to acknowledge and respect the sovereign rights of other States.

These theoretical foundations, combined with a particular analysis of the criteria included in the international instruments, allow at least some trends on the consideration of the factors. In particular, the factors that are of interest for the purpose of this thesis are as follows:

- a) geographical and hydrological factors may have a limited role considering the equality of right;
- b) prior utilization requires protection by the principle of equitable utilization, but not absolute protection;

⁸⁰² Aaron T. Wolf, “Criteria for equitable allocations: the heart of international water conflict” (1999) 23 *Natural Resources Forum* 3.

⁸⁰³ *Ibid.*, at 15.

⁸⁰⁴ *Ibid.*

- c) socio-economic factors in strict sense, i.e. social and economic needs of the parties in so far as the satisfaction of these needs depends on the use of the shared waters, have an important, even predominant, role in the determination of equitable utilization; and
- d) general socio-economic factors, i.e. comparison between levels of economic development of the States concerned, has no role in the legal concept of equitable utilization.

Section 6. Intra-generational Equity and the Principle of Common but Differentiated Responsibility

The previous sections have analyzed the application of equitable principles in cases of delimitation or distribution of resources – equitable delimitation and equitable utilization. In recent years, another principle rooted in the concept of equity has risen in international environmental law: the principle of common but differentiated responsibility (CBDR).

The principle of CBDR has two elements: a) common responsibility, which derives from the increasing interdependence and globalization of environmental problems and the subsequent realization that the solution to them cannot be found domestically;⁸⁰⁵ and b) differentiated responsibility.

The concept of differentiated responsibility has traditionally rested on two justifications.⁸⁰⁶ The first is the different capacity and ability of developed States to address the environmental problems,⁸⁰⁷ and the fact that the most devastating effects of environmental degradation are going to be felt by developing States that have the least capacity to prepare and adapt to them.⁸⁰⁸

⁸⁰⁵ Philippe Cullet, “Differential Treatment in International Law: Towards a New Paradigm of Inter-state Relations” (1999) 10 EJIL 549, at 550.

⁸⁰⁶ French refers to five justifications for differentiated responsibility. Beside the two traditional mentioned in the main text, he cites: the preferential treatment for developing States (independent of contribution to environmental problem or capacity); the global partnership; and the goal of achieving a broader participation in environmental agreements (Duncan French, “Developing States and International Environmental law: The Importance of Differentiated Responsibilities” (2000) 49 I.C.L.Q. 35, at 46-59).

⁸⁰⁷ French, *ibid*, at 50-51; Birnie, Boyle and Redgwell, *supra* note 442, at 132; Cullet, *supra* note 805, at 562.

⁸⁰⁸ French, *ibid*, at 51.

The second justification is the bigger impact that developed countries have had on the environment, i.e., their contribution to the environmental problem.⁸⁰⁹ For some, this justification includes not only the negative impacts that developed States have inflicted on the environment, but also the benefits that the developed countries have received thereof.⁸¹⁰

Both of these arguments are reflected in principle 7 of the Rio Declaration, which includes CBDR as an independent, and fundamental, principle of sustainable development.⁸¹¹ Principle 7 reads:

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities.

The developed countries acknowledge the responsibility that they bear in the international pursuit to sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

CBDR “is based on the perception that global environmental risks have mainly been caused by, and should therefore be tackled primarily by, developed states”.⁸¹² This perception legitimizes a differential treatment for developing States, differential treatment that is a deviation from the principle of sovereign (formal) equality among States but is then justified by the existence of substantive inequalities among them.⁸¹³ As pointed out, this is an application of the old principle that like cases be treated alike and that dissimilarly situated people should be treated dissimilarly.⁸¹⁴ As such, it can be seen as “defining an equitable balance between developed and developing States.”⁸¹⁵

It has been pointed out, however, that the justification of CBDR, as reflected in the first paragraph of principle 7 of Rio Declaration, rests on contribution to environmental degradation and not on the socio-economic development of the State in question. Currently, it is widely considered that the States that have contributed to global

⁸⁰⁹ *Ibid*, at 47; Birnie, Boyle and Redgwell, *supra* note 442, at 133; Cullet, *supra* note 805, at 561.

⁸¹⁰ French, *ibid*, at 48-49.

⁸¹¹ See: Principle 7 in the Rio Declaration, *supra* note 455.

⁸¹² Birnie, Boyle and Redgwell, *supra* note 442, at 136.

⁸¹³ Lavanja Rajamani, “The Principle of Common but Differentiated Responsibility and the Balance of Commitments under the Climate Regime” (2000) 9 RECIEL 120, at 123.

⁸¹⁴ Cullet, *supra* note 805, at 554.

⁸¹⁵ Birnie, Boyle and Redgwell, *supra* note 442, at 133.

environmental degradation are developed States (i.e. the North). In other words, CBDR reflects today a relationship between developed and developing States. But conceptually, it can be the case that in the future, developing States have the bigger share of that contribution and thus a bigger share of the responsibility.⁸¹⁶

The practical implementation of the principle of CBDR can result in various forms of differential treatment. These different forms have also enjoyed different levels of acceptance in international environmental agreements. A first form relates to differential environmental standards, either in the form of exceptions for developing States or less stringent measures for developing States. This differential treatment can be drafted explicitly, but it can also result from the text allowing the consideration of other factors in the implementation of an otherwise generally applicable standard. That is the case of texts introducing expressions such as “reasonable”, “as far as possible”, or “as appropriate.”⁸¹⁷

A second form is the concession of “grace periods” for the implementation of environmental standards. Another expression of practical application of the CBDR is the requirement for provision of technical and financial assistance to developing States. A fourth form suggested as a variant of the former is to condition the implementation of environmental commitments by developing States to the provision of such technical and financial assistance.⁸¹⁸

The principle of CBDR has had recognition both in binding and non-binding instruments. It is explicitly recognized in the Rio Declaration⁸¹⁹ and the Johannesburg

⁸¹⁶ French, *supra* note 806, at 49-50.

⁸¹⁷ *Ibid*, at 39, citing Magraw. Magraw terms this two forms of establishing a differential treatment the “differential norm” and the “contextual norm”, respectively (French, *ibid*).

⁸¹⁸ See: Edith Weiss Brown, “Common but Differentiated Responsibilities in Perspective” (2002) 96 American Society of International Law Proc. 366; Birnie, Boyle and Redgwell, *supra* note 442, at 134-135. An example is provided by the CBD, *supra* note 462, which in article 20(4) states: “The extent to which developing country Parties will effectively implement their commitments under this Convention will depend on the effective implementation by developed country Parties of their commitments under this Convention related to financial resources and transfer of technology and will take fully into account the fact that economic and social development and eradication of poverty are the first and overriding priorities of the developing country Parties.”

⁸¹⁹ Rio Declaration, *supra* note 455, article 6: “The special situation and needs of developing countries, particularly the least developed and the most environmentally vulnerable, shall be given special priority. International actions in the field of environment and development should also address the interests and needs of all countries.” See also principle 7, reproduced in the text.

Plan of Implementation.⁸²⁰ Furthermore, it is identified as one of the principles of sustainable development.⁸²¹ It has also been referred to in international dispute resolutions.⁸²²

The principle of CBDR has also been implicitly applied in several recent environmental agreements that establish exceptions for developing States,⁸²³ extended timeframes for implementation of environmental standards by developing States,⁸²⁴ or less restrictive conservation measures for developing States. Its relevance in binding instruments has been highlighted in the climate change regime, since it has been explicitly included in the United Nations Framework Convention on Climate Change⁸²⁵ and the Kyoto Protocol.⁸²⁶ Nevertheless, it should be noted that the principle is not uncontroversial in international law. There are debates about its precise meaning, its legal status either as soft law or legal principle of international environmental law, the areas of international law in which it is recognized, and its benefits.⁸²⁷

⁸²⁰ Johannesburg Plan of Implementation, *supra* note 266, para. 81: “The implementation of Agenda 21 and the achievement of the internationally agreed development goals, including those contained in the Millennium Declaration as well as in the present plan of action, require a substantially increased effort, both by countries themselves and by the rest of the international community, based on the recognition that each country has primary responsibility for its own development and that the role of national policies and development strategies cannot be overemphasized, taking full into account the Rio principles, including in particular, the principle of common but differentiated responsibilities.”

⁸²¹ ILA New Delhi Declaration, *supra* note 21, principle 3; Sands, *supra* note 475, at 338, classifies CBDR under a second category of principles intended to proceed assistance in achieving sustainable development; Schrijver, *supra* note 453, at 178.

⁸²² *United States Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 by Malaysia* (2001), WTO Doc. WT/DS58/RW (Panel Report), online: WTO <http://www.wto.org/english/tratop_e/dispu_e/dispu_e.htm>. The Report of the Panel noted in para. 7.2: “The Panel urges Malaysia and the United States to cooperate fully in order to conclude as soon as possible an agreement which will permit the protection and conservation of sea turtles to the satisfaction of all interests involved and taking into account the principle that States have common but differentiated responsibilities to conserve and protect the environment.”

⁸²³ The most notorious example is the *United Nations Framework Convention on Climate Change*, *supra* note 466; and the *Kyoto Protocol*, which except non-Annex 1 of the Protocol from abatement commitments. See: *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, 10 December 1997, 37 ILM 22 (1998) (entered into force on February 16, 2005) [hereafter *Kyoto Protocol*].

⁸²⁴ See, for example: article 5 of the *Montreal Protocol on Substances That Deplete the Ozone Layer*, 16 September 1987, 26 ILM 1550 (1987) (entered into force January 1, 1989).

⁸²⁵ *United Nations Framework Convention on Climate Change*, *supra* note 466, preamble, paragraph 6, and article 3(1).

⁸²⁶ *Kyoto Protocol*, *supra* note 823, article 10.

⁸²⁷ See, for example: “Common but Differentiated Responsibility”, (2002) 96 *American Society of International Law Proc.* 358.

CBDR in High Seas Fisheries

The purpose of this section is to analyze if the principle of CBDR can have a role in the search of equitable solutions for allocation of fishing opportunities. At first sight, the principle seems to operate at a different level. The focus of the principle of common but differentiated responsibility is on the burdens, costs, and restrictions imposed by environmental protection. It calls those who have the bigger share of responsibility for environmental deterioration, and the technological and financial capacity to do so, to “take the lead”⁸²⁸ in the resolution of the environmental problem (and thus bear the bigger burden of that solution). In contrast, the allocation of fishing opportunities is a case of distribution of resources, or more precisely, of the possibility of engaging in an economic activity and its extent.

However, allocation of fishing opportunities can also be viewed from the perspective of the restriction to fishing activities that are necessary for the conservation of stocks and the protection of living marine resources and their ecosystem, in general.⁸²⁹ Indeed, a quota imposes a restriction on national fishing activities that otherwise would not have a quantifiable limit according to international law. Therefore, the question can be framed as: who should ‘take the lead’ in assuming the costs of the necessary restrictions in fishing activities? This perspective can be perceived more easily in cases where the TAC has already been established and allocated but the quota needs to be reduced for conservation purposes.

A first aspect to be analyzed is whether the principle of common but differentiated responsibility is included in the global or regional agreements on high seas fisheries management. A crucial aspect for this thesis is whether the principle of common but differentiated responsibility can be recognized as a principle guiding allocation decisions. Both aspects will be analyzed in turn.

A review of the texts allows a conclusion that, although it is not explicitly mentioned as such, at least some of its elements are recognized in the legal framework for international fisheries. According to LOSC and UNFSA, all States have the obligation to conserve the fishing stocks and living resources from the high seas and to cooperate with

⁸²⁸ *United Nations Framework Convention on Climate Change*, *supra* note 466, article 3.1.

⁸²⁹ Indeed, this is considered to be the legal nature of the allocation of quotas in RFMOs. This will be analyzed further in chapter 7.

other States to that end.⁸³⁰ Article 17 of UNFSA reinforces that common responsibility by establishing that States non-members to RFMOs and which do not otherwise agree to apply the conservation and management measures established by such organization, are not discharged from the obligation to cooperate in the conservation and management of the relevant straddling and highly migratory fish stocks. This cooperation includes, according to article 17(2), the obligation to restrain from fishing for the relevant stocks. According to these provisions, the conservation of straddling and highly migratory stocks is a common responsibility. Furthermore, it can be considered a universal responsibility, although the application of this provision to non-parties and non-signatories to UNFSA may be disputed.

Both LOSC and UNFSA also request that, in implementing the obligation of cooperation for the conservation of fisheries resources, consideration should be given to the special requirements of developing States.⁸³¹ In the LOSC, that special consideration is provided:

- a) In the design of conservation and management measures for the conservation of fisheries resources in the EEZ and the high seas, including but not limited to TAC,⁸³²
- b) In the determination of access to the surplus of TAC in the EEZ of a coastal State,⁸³³
- c) Technical and financial assistance and capacity building,⁸³⁴

UNFSA, in turn, considers the special requirements of developing States in different provisions, and devotes a special part, Part VII, to the requirements of developing States. The special requirements of developing States shall be considered,

⁸³⁰ LOSC, articles 63, 64, 117 and 118; and UNFSA, articles 5, 8(3), and 17.

⁸³¹ LOSC, in the preamble, states: “*Bearing in mind* that the achievement of these goals will contribute to the realization of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole and, in particular, the special interests and needs of developing countries, whether coastal or land-locked.” It should be noted that the LOSC contains several provisions regarding the special requirements and needs of developing states in the regulation of the seabed area. However, since this thesis is focused on fisheries management, only relevant provisions for that purpose will be analyzed. Article 119; and UNFSA, *ibid*, article 11(f) and articles 24 and 25

⁸³² LOSC, articles 61 and 119.

⁸³³ LOSC, article 62(2) and (3) and (4) subparagraph a), and 69(3) and 70(4).

⁸³⁴ LOSC, articles 202 and 203, in relation to the protection and preservation of the marine environment. See also: articles 244 on marine research, and part XIV on development and transfer of marine technology, particularly articles 268, 269, 271, 272, 273, 274, 275, 276.

according to UNFSA, at three different stages. The first stage is in the adoption of conservation and management measures. According to article 5(b) of UNFSA

In order to conserve and manage straddling fish stocks and highly migratory fish stocks, coastal States and States fishing on the high seas shall, in giving effect to their duty to cooperate in accordance with the Convention:

(b) ensure that such measures are based on the best scientific evidence available and are designed to maintain or restore stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global;

Article 24(2) adds

In giving effect to the duty to cooperate in the establishment of conservation and management measures for straddling fish stocks and highly migratory fish stocks, States shall take into account the special requirements of developing States, in particular:

(a) the vulnerability of developing States which are dependent on the exploitation of living marine resources, including for meeting the nutritional requirements of their populations or parts thereof;

(b) the need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and women fishworkers, as well as indigenous people in developing States, particularly small island developing States; and

(c) the need to ensure that such measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States.

A second stage is the implementation, *mutatis mutandis*, of the principles of UNFSA in the conservation and management of straddling stocks and highly migratory stocks within the EEZs of the coastal States. Article 3(3) reads

States shall give due consideration to the respective capacities of developing States to apply articles 5, 6 and 7 within areas under national jurisdiction and their need for assistance as provided for in this Agreement. To this end, Part VII applies *mutatis mutandis* in respect of areas under national jurisdiction.

A third stage is through the enhancement of the developing States abilities to develop their own fisheries, and to participate in the high seas fisheries. In the latter case,

however, this participation is subject to articles 5 and articles 11 on fishing opportunities for new entrants. Article 25(1) paragraphs a) and b) read:

1. States shall cooperate, either directly or through subregional, regional or global organizations:

(a) to enhance the ability of developing States, in particular the least-developed among them and small island developing States, to conserve and manage straddling fish stocks and highly migratory fish stocks and to develop their own fisheries for such stocks;

(b) to assist developing States, in particular the least-developed among them and small island developing States, to enable them to participate in high seas fisheries for such stocks, including facilitating access to such fisheries subject to articles 5 and 11.⁸³⁵

A fourth level for the consideration of special requirements of developing States is in the participation, establishment and strengthening of RFMOs,⁸³⁶ and the implementation of the Agreement, including assisting developing States to meet the costs involved in any proceedings for the settlement of disputes to which they may be parties.⁸³⁷

Regional agreements follow different trends in the way they address the special requirements of developing States. Most pre-UNFSA agreements do not have references to developing States.⁸³⁸ Some modern agreements, in turn, follow closely the provisions of UNFSA.⁸³⁹ The Antigua Convention establishes only a general provision on assistance to developing States.⁸⁴⁰ The IOTC Convention is the only text that explicitly addresses the special requirements of developing States in connection to the equitable benefit from fishing activities.⁸⁴¹

⁸³⁵ The preamble of UNFSA also states: “Recognizing the need for specific assistance, including financial, scientific and technological assistance, in order that developing States can participate effectively in the conservation, management and sustainable use of straddling fish stocks and highly migratory fish stocks.” UNFSA, article 25(3), specifies as objectives of the assistance the collection, reporting, verification, exchange and analysis of fisheries data and related information, stock assessment and scientific research, and MCS and enforcement.

⁸³⁶ UNFSA, article 25(1) subparagraph (c), and article 26(2).

⁸³⁷ UNFSA, article 26(1).

⁸³⁸ That is the case of NAFO, NEAFC, ICCAT, and CCAMLR Conventions.

⁸³⁹ That is the case of WCPFC Convention (with special reference to small island developing States, and, as appropriate, territories and possessions in the region); SPRFMO Convention (with special reference to least developed States and the small island developing States, and, as appropriate, territories and possessions in the region); and SEAFO Convention.

⁸⁴⁰ Antigua Convention, *supra* note 86, article XXIII.

⁸⁴¹ IOTC Convention, *supra* note 88, preamble states: “Desiring to contribute to the realization of a just and equitable international economic order, with due regard to the special interests and needs of developing

It has already been pointed out that there are different interpretations on whether these provisions provide for a preferential allocation of fishing opportunities in the high seas.⁸⁴² Some authors, based on article 25(2), conclude that the only obligation with respect to developing States is in the provision of financial and technical assistance and transfer of technology. Article 25(2) reads

Cooperation with developing States for the purposes set out in this article shall include the provision of financial assistance, assistance relating to human resources development, technical assistance, transfer of technology, including through joint venture arrangements, and advisory and consultative services.

That interpretation appears to be too narrow in light of the text of both LOSC and UNFSA. Firstly, article 25(2) does not limit the recognition of developing States to technical and financial assistance, but only States that this *shall include* such assistance. Secondly, and most importantly, that interpretation does not take into account article 119 of the LOSC and 5(b) of UNFSA, which explicitly state that, in the design of conservation and management measures, States shall take into account the special requirements of developing States. Those conservation and management measures include the TAC, and, at least in some interpretations, its allocation in national quotas.

Furthermore, article 24(2) reiterates that obligation and specifies what the special requirements of developing States are. In particular, it includes the “need to ensure that such measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States.”⁸⁴³

What this provision recognizes is that required conservation and management measures could, in some cases, imply different actual burdens for the participants. It also requires that a disproportionate burden shall be avoided. These provisions allow

countries”; and “Recognizing, in particular, the special interests of developing countries in the Indian Ocean Region to benefit equitably from the fishery resources”. In addition, article 5 establishes, as functions of the commission, to: “(b) encourage, recommend, and coordinate research and development activities in respect of the stocks and fisheries covered by this Agreement, and such other activities as the Commission may decide appropriate, including activities connected with transfer of technology, training and enhancement, having due regard to the need to ensure the equitable participation of Members of the Commission in the fisheries and the special interests and needs of Members in the region that are developing countries; and to (d) to keep under review the economic and social aspects of the fisheries based on the stocks covered by this Agreement bearing in mind, in particular, the interests of developing coastal states.”

⁸⁴² See: chapter 3.

⁸⁴³ UNFSA, *ibid*, article 24(2)(c).

concluding that if a required conservation measure imposes a disproportionate burden upon developing States, a differential treatment may be necessary.

The question that follows is: disproportionate in respect to what? In the theoretical foundation of the principle of common but differentiated responsibility, the sources of that differentiation can be either the difference in capacity, or the difference in historical responsibility, i.e., the contribution to the environmental problem. It seems that the lack of capacity is considered as a source of differentiation in UNFSA. This is implicit in the requirement of article 25 to provide developing States with financial and technological assistance, transfer of technology, as well as assistance to enhance their human resources. But lack of capacity can also be interpreted in a wider sense. On the basis of article 24, it can be interpreted that a lack of capacity exists in cases of vulnerability of developing States and their population. Thus, a burden can be disproportionate either because it imposes costly arrangements that developing States are not in a position to afford, or because the social, economic, or cultural impact of the conservation measure demands a much higher sacrifice than the measure demands of developed States.

With respect to the second source of differentiated responsibility—the historical responsibility—the situation is different. There is no reference in UNFSA, in the regional agreements, or in the allocation criteria, that imply historical responsibility of traditional fishing States in the over-exploitation of a stock, much less in connection to allocation of fishing opportunities.⁸⁴⁴ Thus, the fact that past fishing patterns were unsustainable appears not to have any impact on the distribution of benefits and burdens of high seas fisheries management.⁸⁴⁵

⁸⁴⁴ The argument, however, has not been absolutely absent of the allocation debates. During the 2002 Meeting of Panel 4 of ICCAT, and after Japan suggested that an allocation proposal for North Atlantic swordfish was rewarding the sacrifices made by the four main fishing nations in past years for the conservation of the stock, the delegate of Venezuela “expressed his surprise at the notion of sacrifice concerning this stock as indicated by the four Contracting Parties with the largest catches in the North Atlantic swordfish fishery (Canada, EC, Japan and United States). In effect, the historical fishers are responsible for the over-exploitation. This signifies that it is perfectly normal for these countries to have made sacrifices to rebuild this stock for the benefit of humanity.” ICCAT, *Report for biennial period, 2002-2003, Part I (2002)*, *supra* note 303, para 6.1.20 at p. 317.

⁸⁴⁵ The situation is different with respect to fishing activities undertaken in violation of established conservation and management measures. Compliance with conservation and management measures is generally a criterion considered for allocation. It should also be noted that in some cases, the main fishing States undertake comparatively greater fishing reductions. This differential treatment can be justified in the capacity of those States to uphold those reductions, rather than in their contribution to overexploitation.

The interpretation that the principle of CBDR should be applied in the allocation decisions, based on the vulnerability of some States, seems to be sustained in the specific allocation criteria considered by some RFMOs. The SPRFMO and WCFPC Conventions include, among their allocation criteria, references to the needs and aspirations of developing States in the region, in particular small island developing States and territories and possessions; and the particular interests of developing coastal States. ICCAT guidelines also make explicit reference to “the interests of artisanal, subsistence and small-scale coastal fishers” and “the socio-economic contribution of the fisheries for stocks regulated by ICCAT to the developing States, especially small island developing States and developing territories from, the region.”⁸⁴⁶

CBDR in Practice

An analysis of current practices in RFMOs supports a conclusion that the principle of common but differentiated responsibility has had practical applications in allocation exercises through various forms of differential treatment. In particular, RFMOs have often adopted the practice of establishing exceptions to conservation and management measures limiting fishing effort or catches, and differentiated levels of fishing restrictions.

A common practice, and usually the first step, towards allocation is to limit fishing mortality by limiting the fishing effort and/or catches of participating States to the level of a certain reference point. This ‘freezing’ of the fisheries activities is not an explicit allocation. It involves, however, an implicit allocation recognizing current catches as a baseline, and thus entitlement as primary principle for distribution.⁸⁴⁷

Often, measures limiting fishing effort or catches have exceptions or differential (less restrictive) rules for some category of States. These exceptions or differential rules

See, for example: ICCAT, Recommendation 2006-05 to establish a multi-annual recovery plan for bluefin tuna in the eastern Atlantic and Mediterranean, online ICCAT <<http://www.iccat.int>>.

⁸⁴⁶ ICCAT, Resolution 01-25, *supra* note 300, para. III(c) subparagraphs 7 and 9.

⁸⁴⁷ Agnew *et al.* call this practice a “de facto” allocation (Agnew *et al.*, *supra* note 10, at 45). Since the level to which catch or effort is frozen is usually the reference level for subsequent explicit allocations, it is a form of giving entitlement priority in the allocation process.

apply usually either to (fishing or coastal) States with low catches,⁸⁴⁸ to States whose catches have one particular use,⁸⁴⁹ or to coastal States.⁸⁵⁰ The differential treatment can consist of either an exception to the restrictions on fishing,⁸⁵¹ or a fishing restriction that nevertheless allows for some development of the fishery.⁸⁵²

The technique of differential treatment has also been used in cases where an allocation has been agreed to, but adjustments to the TACs require a revision of national allocations. According to the principle of formal equality, the reductions (or increases) should be equal for all participants. However, in many cases, the adjustments have a differential component to protect vulnerable fishing sectors (either developing States, or coastal communities particularly dependent upon fisheries).⁸⁵³ This differentiated

⁸⁴⁸ See, for example, WCPFC Conservation and Management Measure CMM 2008-01 for bigeye and yellowfin tuna in the Western and Central Pacific Ocean. Online: <<http://www.wcpfc.int/conservation-and-management-measures>>, para. 32: "Paragraph 31 does not apply to members and participating territories that caught less than 2,000 tonnes in 2004."

⁸⁴⁹ See, for example: WCPFC CMM 2008-01, *ibid*, para. 35: "Further to paragraph 34, the reductions specified in paragraph 33 for 2010 and 2011 shall not apply to fleets of members with a total longline bigeye tuna catch limit as stipulated in Attachment F of less than 5,000 tonnes and landing exclusively fresh fish"

⁸⁵⁰ An earlier example of differential treatment favoring coastal States can be found in the first allocation adopted by ICCAT for bluefin tuna in the Western Atlantic. The allocation agreed exempted two coastal States (Brazil and Cuba) from any fishing limitation. See ICCAT, Record of the Meeting on the Western Atlantic Bluefin Management Measures, 8–12 February 1982, Miami, Florida, online: ICCAT <<http://www.iccat.int>>. See also, ICCAT Recommendation 82-01 on New Regulations for the Atlantic Bluefin Tuna Catch (1983), para. 5, online: ICCAT <<http://www.iccat.int>>; WCPFC Conservation and Management Measure 2008-05 of swordfish, para. 6, online: WCPFC <<http://www.wcpfc.int>>. Similar exceptions were included, for example, in CMM 2006-03 (replaced by 2008-05); CMM 2005-01 on Bigeye and Yellowfin tuna (replaced by CMM 2008-01); CMM 2008-01, para. 34; and CMM 2006-04 on Striped Marlin.

⁸⁵¹ See, for example, ICCAT Recommendation 82-01, *ibid*.

⁸⁵² This can be expressed in terms of a certain amount that acts as an upper limit in the increases of catches for small fishing States (and thus as a minimum level for participating States). That is, for example, the case of CCM 2008-01, *supra* note 848, para. 32, which allows States with catches lower than 2,000 tonnes to maintain catches at that level for the following three years. It has also been expressed in terms of allowing a 'responsible development' of a fishery, where the 'responsible development' is presumably subject to scrutiny by the RFMO (usually operationalized by imposing the requirement of a development plan to the Commission of the RFMO).

⁸⁵³ A clear example thereof is the allocation of the quota adopted by the CCSBT at their annual meeting held in October 2009. The quota was reduced by 20 percent due to scientific concerns over the status of the stock. The reduction of catches in the CCSBT was absorbed by member States, and not by cooperating non-members. In addition, in consideration of the artisanal character of Indonesia's fisheries and other special circumstances, Indonesia reduced its catches only by about half of that required of other members (expressed in percentage of reduction). Information provided by the Secretary Executive of CCSBT, Mr. Robert Kennedy, on private e-mail communication.

treatment usually favors developing States; however, this is by no mean a constant rule.⁸⁵⁴

Section 7. Lessons for International Fisheries Law

The previous chapters have described how the international community is in search of a framework for allocation of high seas fishing opportunities that is equitable, transparent, and predictable. This chapter has analyzed the role that a legal concept of equity can fulfill in that search. From the analysis of the legal concept of equity, and the implementation and evolution of equitable principles (equitable delimitation – equitable utilization - CDDR) in other areas of international law, some observations can be made in relation to allocation of fishing opportunities. These observations are presented in three separate sections, following the different levels of normativity of the concept of equity. Thus, the first group of observations relates to the applicability of equity as a fundamental norm to guide allocation decisions. The second group of observations addresses the normative elements of the substantive concept of equity, or controlled equity, in high seas allocation frameworks. Finally, the third group of observations analyzes some of the normative elements of the concept of equity, and particularly equitable principles and relevant circumstances, as developed in other areas of international law, and their applicability to the distributional conflicts identified in chapter 3.

This third group of observations is necessarily a tentative exercise. It is tentative, firstly, because the areas of international law that have been examined are limited. Secondly, the conclusions that can be drawn from the implementation of equitable principles and the different categories of relevant factors are more aptly defined as trends in an evolutionary process. Thirdly, the analysis has to take into account the different features of the analyzed fields of international law.

In this respect, it is worth making the main differences explicit. A first difference relates to the nature of the exercise: establishing a geographical or spatial boundary is different from apportioning a common resource. The ICJ has already pointed out that

⁸⁵⁴ The rule of paragraph 35 of the WCPFC CMM 2008-01, *supra* note 848, for example, was established considering the interests of the USA. See T. Aqorau, “Current legal developments: Western and Central Pacific Fisheries Commission” (2009) 24 Int’l. J. Mar. & Coast. L. 737, at p. 745.

difference. This difference has consequences both in the role of geographical factors in the delimitation and allocation process, as well as in the stability of the solution. While delimitation is a permanent decision, the allocation of water or fish resources may, and indeed should be, revised periodically.

Another important difference relates to the number of participants. In the case of maritime boundary delimitation and water allocation conflicts, the number of participating States is limited and defined by geography. That is not the case in international fisheries, as a consequence of the principle of freedom to fish in the high seas. The number of participants in the allocation of fishing opportunities is undefined and, if not unlimited, at least clearly inconsistent with the renovation capacity of any fish stock.

The Applicability of Equity in International Fisheries

It has been noted in this chapter that States have a general reluctance to make references to equity in the context of the high seas fisheries regime. The main Conventions and non-binding instruments adopted by the international community do not make explicit references to equity in the context of high seas fisheries. Furthermore, in several cases explicit references to equity were deleted from earlier drafts.

Two related reasons can explain this reluctance. The first reason is that traditional high seas fishing States want to maintain the “first-come first-served” principle regulating access to high seas fisheries. It has been noted, indeed, that many authors consider the absolute protection of prior uses as incompatible with equity. The second reason may lie in the different meanings of equity in international law. States avoid making references to equity in documents that, due to their scope and forum, may be interpreted as calling for a re-distribution of the resources of the ocean.

Nevertheless, this does not preclude the application of equity understood in its classical meaning, i.e., as the act of balancing the interests and rights of States and other relevant circumstances of the particular case. Several legal arguments, some State practice, and scholarly opinions support this interpretation.

Equity in international fisheries law has the character of autonomous equity. Indeed, it has been pointed out in chapter 3 that neither the LOSC nor UNFSA contain

any rule of law or fundamental norm governing the allocation of fishing opportunities. Thus, equity would act as such a fundamental norm, and not as an equitable correction of a rule of law.

Autonomous equity, however, has been criticized as a discretionary concept with no normative content. It does not, so it is argued, restrict the discretionary powers to decide on what is equitable, and therefore opens a door for unpredictability and inconsistency. Therefore, the application of a legal concept of equity requires providing the concept with some normative content.

Constructing a Normative Content of Equity

Maritime boundary delimitation law provides valuable lessons for the construction of an equitable standard with normative (i.e. legal) content. A normative concept of equity consists of equitable principles, relevant circumstances, and equitable methods. These elements constrain the discretion of the decision-maker and allow greater transparency, objectivity, and predictability in the process of achieving an equitable result.

It is useful to compare the developments of the standard of equitable delimitation and utilization against the limited developments in international fisheries, to assist the construction of a normative framework for allocation of fishing opportunities. The global fisheries instruments, and for a large part also the regional regimes, provide for just one of the elements identified in maritime law as pertaining to a normative concept of equitable utilization: relevant circumstances. “Relevant circumstances” in international fisheries are called “allocation criteria”. By focusing exclusively on identifying these criteria, the international community and the regional regimes have neglected the development of equitable principles and equitable methods, which provide the special circumstances and the process as a whole with purpose and direction to achieve an equitable distribution. In other words, it has failed to provide those with decision-making powers with any substantial guidance on how to balance those special circumstances.

In relation to maritime delimitation, Weil makes the following remarks regarding the relationship between relevant circumstances and equitable principles:

It follows from this that relevant circumstances must always be taken into consideration. But it also follows that (...) they (...) do not constitute a self-sufficient factor in delimitation.

It is important to note that the facts do not dictate the solution (...) Facts are silent. What is equitable? What is not? By themselves, the facts have no answer to these questions. Only human judgment can fulfill this task. The consideration and balancing-up of relevant circumstances are deliberate legal acts. They presuppose what might be called a philosophy of equity. (...) This philosophy is expressed by equitable principles.

The concept of equitable principles implies a judgment on these elements of facts and a particular view of the purpose of the delimitation. Relevant circumstances are nature's gift. Equitable principles exist on the level of value judgments. They are man-made.

(...) relevant circumstances and equitable principles go hand in hand (...). In short, equitable principles acquire substance only by reference to the relevant circumstances in the case, and the relevant circumstances in the case operate only with the help and in the context of equitable principles.⁸⁵⁵

Although RFMOs, for the great extent, have not explicitly identified equitable principles that can act as direction-finders of equitable solutions, it should be noted that two organizations have taken some steps in that direction. ICCAT is the organization that has taken the most steps towards identifying "considerations" that can act as direction-finders, in a way similar to the way in which equitable principles act as direction-finders in maritime boundary delimitation law. According to ICCAT's Resolution 2001-25, the allocation criteria should be applied by the relevant Panels on a stock-by-stock basis; they should be applied in a fair and equitable manner with the goal of ensuring opportunities for all qualifying participants; they should be applied to all stocks in a gradual manner (...) in order to address the economic needs of all parties concerned, including the need to minimize economic dislocation; they should be applied so as not to legitimize illegal, unregulated and unreported catches; they should be applied in a manner that encourages cooperating non-contracting parties, entities and fishing entities to become contracting parties, where they are eligible to do so; and they should be applied to encourage cooperation between the developing States of the region and other fishing States for the sustainable use of the stocks.

⁸⁵⁵ Weil, *supra* note 605, at 211-212.

Another, rather different, example is offered by the WCPFC. In 2008, the organization adopted a non-binding Resolution on the Aspirations of Small Islands Developing States (SIDS) and Territories.⁸⁵⁶ According to this resolution, contracting parties and cooperating non-contracting parties “commit to achieve the goal of ensuring that by 2018, the domestic fishing and related industries of developing States, in particular, the least developed SIDS and Territories, accounts for a greater share of the benefit than what is currently realized of the total catch and value of highly migratory fish stocks harvested in the Convention Area.”⁸⁵⁷ This measure appears closer to a policy objective for distributional justice, rather than an equitable principle emerging from the legal framework. However, it reflects what the parties consider equitable considering the specific situation of the WCPFC. And as a policy objective, it provides at least some guidance on how to allocate fishing resources in the future.

The Allocation Conflicts in the Light of the Experience of Other Fields of International Law

This last group of observations attempt to analyze some of the elements of a normative concept of equity, as developed in other fields of international law, to shed some new light on the conflicts of allocation of fishing opportunities described in chapter 3. In particular, the potential role of some equitable principles identified in maritime delimitation law and the law of international watercourses, and the role and relevance of different categories of relevant factors, is taken into account. The purpose is not to “solve” the distributional conflicts, but to identify aspects and trends to be taken into account in the construction of a normative framework of equity.

⁸⁵⁶ WCPFC, Resolution 2008-01 on Aspirations of Small Island Developing States and Territories, adopted at the fifth general session of the Commission of the WCPFC held in Busan, Korea, 8-12 December 2008, online: WCPFC <www.wcpfc.int>.

⁸⁵⁷ WCPFC, *ibid*, at para. 4. It is interesting to note that the proposal originally presented to the consideration of the Commission included a more precise quantitative target: by 2018, Small Islands Developing States could account for 70 per cent of all highly migratory fish caught in the Convention Area. The proposal was not accepted (WCPFC, *Fifth Regular Session of the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean*, *supra* note 314, para. 214 at 32).

a) The EEZ/High Seas Distributional Conflict in the Light of Other Experiences

The EEZ/high seas distributional conflict can be analyzed in light of the experiences of maritime boundary delimitation and international law of watercourses. Of particular interest is the consideration of the relevant circumstances related to features of nature rather than man-made: geography, hydrography, hydrology, and distribution of the stocks.

In the case of maritime boundary delimitation, geography is a predominant relevant circumstance. The focus on geography is a logical consequence of the nature of the process. Firstly, the objective of maritime boundaries is precisely to define areas of jurisdiction over the oceans. Secondly, the legal source of the powers that the State can exercise in the marine areas is the land.⁸⁵⁸ Therefore, “geographic considerations inspire, if they do not dictate, most delimitations.”⁸⁵⁹

The case of international watercourses presents, in this respect, more similarities with international fisheries for straddling and highly migratory stocks. In both cases, the boundaries of areas under different jurisdiction are identified; but the object of distribution moves across boundaries. It has already been pointed out that, in the case of the law of international watercourses, there are different interpretations with respect to the role of geographical, hydrographical and hydrological factors. While some consider that it is the most important factor, since it derives from the legal title of sovereignty, others consider that it does not enjoy such preference because the waters of the international watercourse are a common resource for all States on the basis of State equality.

This particular distributional conflict can be revisited in the light of equitable principles identified in previous sections. Particularly relevant are the principle of sovereignty, proportionality, the principle that equity does not seek to make equal what nature has made unequal, and the principle of equality. They are addressed in turn.

Respect for national sovereignty is one of the pillars of international law. As such, it has influenced the legal framework of international watercourses. Indeed, the legal

⁸⁵⁸ Proper Weil, “Geographic Considerations in Maritime Delimitation” in Jonathan I. Charney and Lewis M. Alexander, *International Maritime Boundaries*, vol.1 (Dordrecht; Boston: Martinus Nijhoff Publishers, 1993)115, at 115.

⁸⁵⁹ *Ibid*, at 119.

framework is constructed on the basis of the theory of (limited) sovereignty of the States. The theory of a ‘community of interests’, also proposed as a theoretical foundation, has not been followed by States.⁸⁶⁰ That is demonstrated also by the ILC lengthy debated on the use of the term ‘shared resources’ in law of international watercourses, and its potential implications for national sovereignty. It was based on the respect to national sovereignty that the term was dropped from the final document.

The importance of sovereignty is also latent in the evolution of the law of the sea, in general. Its importance is evident in the extension of maritime jurisdictions. And it is also present in the establishment of TACs and allocations. As it may be remembered from chapter 2, in the origin of TACs and allocations, this measure had as one of its justifications the respect and protection for the sovereign rights of States. They were implemented so as to allow States to pursue their own economic and social objectives, without being affected by the behavior of the other States over a common resource.

Thus, an international regime should respect the sovereign rights of States. The question is: how should that respect be reflected in the allocation of fishing opportunities? There are two arguments supporting that the respect should be based mainly on the application of the criterion of zonal attachment for distribution of resources between EEZ and HS.

A first argument is the principle of proportionality used in maritime boundary delimitation. The principle of proportionality reflects the need that the maritime space adjudicated to each State is proportional to the coast length, being the coast length what provides the basis of the title for that maritime space. Applying the same legal reasoning, the proportionality in allocation of straddling and highly migratory stocks would require that the distribution of TAC between EEZ and high seas would be proportional to the presence of the relevant stock in each area, since it is the area (EEZ) and not the stock that provides the basis of the legal title.

The second argument lies on the principle that equitable use does not seek to make equal what nature has made unequal. Thus, an equitable allocation of fishing opportunities shall not compensate for a presence, or absence, of distribution of the relevant stock in a particular side of the man-made boundary.

⁸⁶⁰ McCaffrey, *supra* note 752, at 147-167.

It has been noted that Fuentes considers that the geographic and hydrologic criterion in the application of equitable utilization of international watercourses, albeit having a role, should not be a predominant factor. This opinion is based on the perfect equality of rights among participating States, perfect equality that in turn derives from the national sovereignty. Whether one shares this argument for the law of international watercourses or not, it should be noted that the perfect equality of States in the distribution of high seas fishing opportunities between EEZ and high seas can be questioned. Albeit all States have a right to fish, the title for that right is not equal. The coastal State has a right to fish that derives from a sovereign right, while the right to fish of DWFNs derives from a freedom to fish in areas where no spatial and exclusive jurisdiction is exercised. This difference in the legal title, it can be argued, allows also making a distinction in the allocation process.

The particular relevance of zonal attachment as a criterion for the distribution of fishing opportunities between EEZ and high seas appears to be confirmed by State practice. In the case of straddling stocks, zonal attachment has been always a determinant factor in the allocation of fishing opportunities. It appears, as well, that its importance is increasing. Evidence thereof is, for example, the sharing agreement for cod, haddock and yellowtail flounder on Georges Bank, proposed by the Gulf of Maine Transboundary Management Guidance Committee and accepted by the fisheries administrations of USA and Canada in 2001.⁸⁶¹ The sharing agreement considered a gradual shift (over a period of 8 years) from an allocation key based 60% on the distribution of the stock, and 40% on historical catches, to an allocation key that considered each criterion on a 90% and 10% basis, respectively.

⁸⁶¹ See: Gulf of Maine Transboundary Management Guidance Committee, "Development of a Sharing Allocation Proposal for Transboundary Resources of Cod, Haddock and Yellowtail Flounder on Georges Bank", Fisheries Management Regional Report 2002/01, January 2002, Attachment 9, online: Maritimes Region of the Department of Fisheries & Oceans Canada, <<http://www.mar.dfo-mpo.gc.ca>>.

Table 10. Weighting of resource distribution v. historical landings (express in percentage) in the sharing agreement adopted by the Gulf of Maine Transboundary Management Guidance Committee on December 2001

Year	2003	2004	2005	2006	2007	2008	2009	2010
Distribution v. Historical landings (%)	60/40	60/40	65/35	70/30	75/25	80/20	85/15	90/10

This agreement governs the allocation of transboundary resources within the EEZs of two coastal States. However, it reflects a preference for a neutral and objective criterion that can be also applicable in the distribution of stocks between the areas of EEZ and the high seas.

In the case of highly migratory stocks, and as has been pointed out already in chapter 2, the zonal attachment was initially not considered a relevant criterion and today its applicability is, in practice, limited. However, it should be noted that its initial exclusion in tuna RFMOs was influenced by one particular historical factor that no longer holds relevant.⁸⁶² Currently, the trend in tuna RFMOs is also to give broader recognition to the distribution of the stocks in the allocation of fishing opportunities. A clear example thereof is the ICCAT Criteria for the Application of Fishing Possibilities, which explicitly includes the following criterion: “the occurrence of the stock(s) in areas under national jurisdiction and on the high seas.”⁸⁶³ Even more remarkable were the opinions of many States after the adoption of the non-binding criteria. The inclusion of this criterion was widely considered as recognition of the legal rights of the coastal States, and it even removed the practical and legal impediments of some coastal States to become parties to ICCAT. Thus, the interpretation and expectation of States is that the distribution of the stock shall be a significant factor in the distribution of fishing opportunities.

The preference for zonal attachment criteria can be found not only in the fact that it respects sovereign rights of coastal States, but also in that it is a neutral and objective criterion. This neutrality has also been one consideration for the preference for physical geography in maritime boundary delimitation. It has been argued, however, that the value of the criterion is diminished because the migration patterns are unknown, uncertain, or

⁸⁶² See: *supra* note 252.

⁸⁶³ ICCAT, Resolution 01-25, *supra* note 300, paragraph C).

variable. This is held particularly in respect to highly migratory stocks. This uncertainty and variability may arise because of the characteristics of the migration patterns, or because of insufficient scientific knowledge. Despite the reasonableness of this argument, both circumstances can be taken into account explicitly and objectively in the determination of the role of the criterion in the allocation process. The more uncertain or variable the migration or distribution patterns, the less weight that should be given to this criterion. As a consequence, it would need to be supplemented by other criteria. This can be either on a permanent or temporary basis, until scientific knowledge is acquired and adjustments can be made.

A particular aspect that should be analyzed, in the applicability of the criterion, are the situations where the stock is fully exploited, but the coastal State has not developed the fishing capacity to catch its proportion of the quota.⁸⁶⁴ In these cases, the fishing activities of the coastal State do not represent its theoretical share of the stock according to the distribution of the stock; but any adjustment to its national quota will imply a sacrifice by DWFNs. This situation, in turn, may arise for two reasons: because the coastal State attempts, not to fish its quota, but to give access to the TAC surplus in its EEZ; or because the coastal State aspires to fully develop its fishing capacity.

There are three theoretical responses to these questions: a) it can be decided that the coastal State shall be allocated its share in any case, leaving to the coastal State the possibility to afford access to its EEZ and quota to DWFNs; b) it could be decided to allocate a share according to distribution of the stock only when the coastal State is developing its own fishing capacity (and as a consequence, the share of DWFNs shall be reduced); or c) it could be decided that the national quota of the coastal State cannot be accommodated if it implies a reduction of the share of DWFN.

The latter response should in principle be rejected as contrary to the equitable principles identified above. A further analysis that could be introduced, to answer this question, is the assessment of the new activities by a coastal State according to standards of reasonableness. This aspect will be addressed further below.

⁸⁶⁴ In the cases the stock has not been fully exploited, it should be noted that allocation is necessary only in case of user conflict. If there is room for a potential growth of the coastal State fishing capacity, there is no distributional conflict.

b) Historical Catches, Intergenerational Equity and New Participants

Historical catches play a considerable role in the allocation of fishing opportunities in the high seas. It has been the predominant allocation criterion since its inception, and it is the main criterion used today.⁸⁶⁵ The “first-come first-served” or “first in time, first in right” philosophy seems to have been, and in many respects still is, the predominant philosophy for high seas fisheries.

According to international law, historical rights or prior uses deserve legal protection. As noted above, the Permanent Court of Arbitration considered a “well established principle of the law of nations that the state of things that actually exists and has existed for a long time should be changed as little as possible.”⁸⁶⁶ The ICJ has reaffirmed this principle by stating that “historic rights must enjoy respect and be preserved as they have always been by long usage.”⁸⁶⁷

The historical rights or prior uses that are offered legal protection are, however, uses that exist now and have existed for a long time. Without doubt, the requirement of long usage is warranted in the cases of maritime delimitation because their effect is to establish the legal basis for a claim to sovereignty or sovereign rights. Nevertheless, the requirement that prior uses have existed for long time is also warranted by the justification of this protection: to protect the stability of situations.

Furthermore, as Fuentes notices in relation to non-navigational uses of international watercourses, the prior use is a demonstration of socio-economic dependency. As a consequence, she asserts that legal protection is afforded to prior uses inasmuch as they are reflections of such dependency. This interpretation seems to have support in the jurisprudence of the ICJ in the *Fisheries Jurisdiction Case*.⁸⁶⁸ The case involved the unilateral extension of exclusive fisheries jurisdiction by Iceland in an area where, according to the judgment, international law recognized only a preferential right of the coastal States. In the Fisheries case, the court acknowledged the need to balance the preferential rights of coastal States with the concurrent rights of other States,

⁸⁶⁵ See, as a clear example thereof, *supra* note 408.

⁸⁶⁶ *Grisbådarna case (Norway v. Sweden)*, *supra* note 734, at 6.

⁸⁶⁷ *Continental Shelf (Tunisia v. Libyan Arab Jamahiriya)*, *supra* note 602, para. 100 at 73.

⁸⁶⁸ *Fisheries Jurisdiction (United Kingdom v. Iceland) and Fisheries Jurisdiction (Germany v. Iceland)*, *supra* note 672.

and particularly of a State which, like the Applicant, has for many years been engaged in fishing in the waters in question, such fishing activity being important to the economy of the country concerned. The coastal State has to take into account and pay regard to the position of such other States, particularly when they have established an economic dependence on the same fishing grounds.⁸⁶⁹

Furthermore, in the following paragraph the ICJ considered not only the long time that the applicant, United Kingdom, had been fishing in the area, but also the fact that its catches were remarkably steady, and that it constituted its main distant water fishing grounds for demersal species. All these elements denoted, in the opinion of the ICJ, not only the dependency on the fish grounds, but also an interest in their conservation.⁸⁷⁰

This paragraph of the ICJ decision supports, therefore, the principle that prior uses deserving legal protection, or at least particular legal protection, are the uses that have continued for a considerable time and that have, therefore, created both a dependency and an expectation for the respective State.

The analysis of the practices of RFMOs in allocation of fishing opportunities described in chapters 2 and 3, and in particular the use of the criterion of past performance or historical catches, demonstrates a rather different trend. The allocation of fishing opportunities tends to favour a “short-term history”. This is done in some cases directly and explicitly. That has been the case with the allocation key discussed by NAFO in 1969, or in the allocation keys recently discussed for the shrimp fishery.⁸⁷¹ It is also done indirectly, by establishing recent reference periods for the limitation of fishing effort or fishing mortality, as discussed in earlier chapters.

The consideration of a short-term fishing history creates wrong incentives for fisheries conservation, as has been analyzed in chapter 4. Indeed, in the expectation of receiving a bigger share, States have incentives to increase the fishing activities in the period prior to the establishment of a management regime that includes TAC and allocations. This increased short-term fishing activity is then “protected” through its recognition and relevance in allocation decisions, even though it may have been deliberately inconsistent with conservation objectives.

⁸⁶⁹ *Fisheries Jurisdiction (United Kingdom v. Iceland)*, *ibid*, para. 62 at 27-28; similarly, *Fisheries Jurisdiction (Germany v. Iceland)*, *ibid*, para. 54 at 196.

⁸⁷⁰ *Fisheries Jurisdiction (United Kingdom v. Iceland)*, *ibid*, para. 63 at 28, and para. 66 at 29; similarly, *Fisheries Jurisdiction (Germany v. Iceland)*, *ibid*, para. 55 at 197 and para. 58 at 197-198.

⁸⁷¹ See: chapter 3, *supra* note 408.

But in addition, the consideration of a short-term history creates wrong signals for equity. Indeed, the recognition of “last minute history” implies that recent activities would deserve the same protection than activities that have been developed for decades or centuries. This conclusion does not follow and even contradicts the legal reasoning for the protection of prior uses, as understood in international law.

A task that needs to be addressed in the construction of a normative framework for allocation of fishing opportunities is to determine, therefore, the requirements that historical catches have to fulfill to receive legal protection in the allocation process.

Provided that prior uses comply with the requirements to deserve legal protection, the further question that needs to be asked is if this protection is absolute. The experience in other areas of international law demonstrates that historical titles or prior uses do not receive absolute protection. Indeed, absolute protection is, in the opinion of most scholars, incompatible with the principle of equitable utilization.

The recent experiences in RFMOs allow the conclusion that allocation of fishing opportunities does not provide absolute protection to prior uses either. Indeed, RFMOs’ recent work on allocation criteria is an attempt to move away from historical catches as a sole or predominant criterion of distribution. However, it should be noted that this attempt has mostly been related to a new approach to address the distributional conflict between EEZ and the high seas. With respect to high seas fishing opportunities, it has only been timidly raised.

In this latter respect (i.e. the distribution of fishing opportunities for the high seas component of the stock), a crucial difference between the international fisheries management regime and other areas of international law analyzed in this chapter should be noted. That crucial difference is the number of potential participants in the regime. While in maritime delimitation and international watercourse the number of participants is limited and defined by natural factors, the potential number of participants exercising the “freedom of the high seas” is, if not unlimited, at least incompatible with a sustainable and economically viable activity.

In addressing this particular reality, UNFSA does not recognize the right of participation in the RFMO to all States, but only to States with a real interest. Unfortunately, it fell short in defining the concept of real interests and debate exist on its

meaning. An alternative way to address this particular problem would be to address the problem from the perspective of legal protection of prior or historical uses. The task, then, would not be to positively answer what the content and conditions of “real interest” is, but rather to answer the reverse: to which interests, and in which circumstances, does the legal protection to prior uses retreat.

A few answers on this latter question can be attempted. On the basis of the arguments of the previous section, it can be concluded that the prior or historical do not prevail against the exercise of sovereign rights by the coastal States. It can also be concluded that prior uses do not receive absolute protection in cases of economic and social dependency from States fishing for the resources, and in particular from developing States in the region, as will be explained in the next section. In respect to other new entrants, the protection of prior uses should indeed be higher, albeit not necessarily absolute. A few guidelines can also be proposed in balancing the protection to prior uses and the aspirations of new entrants:

- a) New entrants shall have the capacity to perform responsible fisheries.
- b) New entrants shall qualify as such, to avoid providing quota to actors that recur to flags of convenience to increase their fishing opportunities in the RFMO.
- c) Limitations to new entrants shall only be applicable in case of scarcity, i.e., in case of conflict between new entrants aspirations and the status of the stock.
- d) States with historical entitlement shall ensure optimum and reasonable exploitation of the stocks. Underexploited quotas shall be re-allocated. Unjustified wasteful fishing activities should not be protected.

c) The Developing States/Developed States Conflict: Socio-Economic Factors

The consideration of socio-economic factors is undoubtedly the most difficult aspect of the normative concept of equity. Socio-economic considerations lean the concept towards distributive justice in its broad sense, and therefore taint the decision with political rather than legal considerations.

The approach adopted by the ICJ distinguishes between relevant and non-relevant socio-economic factors. The social and economic development of the respective States is deemed irrelevant for delimitation or allocation purposes: they are a matter of distributive justice – of world politics – and not of legal principles. The existence of natural resources

in the disputed area, on the contrary, have been considered a relevant circumstance and given a role, albeit limited, in maritime delimitation. A similar approach has been suggested for the law of international watercourses. Socio-economic development of the State is deemed a political consideration irrelevant for the concept for equitable utilization. The social and economic dependency on the resources of the particular watercourse, on the contrary, are considered not only relevant but, in the opinion of some authors, the most important criterion to be considered in the determination of equitable utilization.

This approach can be compared to the provisions of the global and regional frameworks for allocation of fishing opportunities. As has been explained in chapter 3, the allocation criteria in UNFSA include explicitly socio-economic factors and the special requirements of developing States. In particular, they recognize:

- Dependence of coastal States, including:
 - needs of coastal fishing communities which are dependent mainly on fishing for the stocks
 - the coastal States whose economies are overwhelmingly dependent on the exploitation of living marine resources
 - the particular interests of developing coastal States
- Dependence of States fishing on the high seas on the stocks concerned
- Needs and dependence of developing States, including:
 - vulnerability of developing States which are dependent on the exploitation of living marine resources
 - vulnerability of developing States to meet the nutritional requirements of their populations or parts thereof;
 - the need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and women fishworkers;
 - the need to avoid adverse impacts on, and ensure access to fisheries by, indigenous people in developing States, particularly small island developing States;
 - the need to ensure that such measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States.

RFMOs Conventions and allocation guidelines, if available, also include socio-economic factors and special requirements of developing States as factors to be taken into account in the allocation of fishing opportunities.

A first aspect that needs to be addressed is the nature of the socio-economic factors considered in the global and regional frameworks. Indeed, LOSC, UNFSA and the regional frameworks explicitly call to take into account the special requirements of developing States. Is this an aspect of the allocation of fishing opportunities that cannot be included in a normative content of equity?

There are reasons to believe that that is not the case. The special requirements of developing States are not mentioned in isolation of any other circumstance. They are mentioned either in conjunction with their character of coastal State; with a particular dependency on the exploitation of living marine resources (including for meeting nutritional needs); and with exploitation patterns of subsistence, small-scale and artisanal fishers and indigenous populations. Thus, it is not the stage of development alone what deserves special consideration in international fisheries law, but the special vulnerability of the developing States, their population, or part thereof, based on their dependency on the resource managed by an RFMO. Considered from that perspective, allocation of fishing opportunities is again not an exercise of distributive justice but of equitable principles within the law.

The next aspect that needs to be addressed is the practical implementation of socio-economic factors in an equitable allocation. Few RFMOs have developed indicators to assess economic and social aspects of the fishing activities. The performance review panel of NEAFC, for example, expressed its frustration with the lack of focus and information available on economic and social benefits,⁸⁷² and recommended that the organization develops an annual fisheries status report which encompasses not just biological factors for the fish stocks concerned but also social, environmental and economic performance.⁸⁷³ Mooney-Seus and Rosenberg, in turn, note that few RFMOs have “well-articulated strategies for identifying and accounting for (...) socio-economic needs.”⁸⁷⁴ Allen, as well, notes that “[t]una RFMOs have given little attention to economic criteria in determining management standards”.⁸⁷⁵

⁸⁷² NEAFC, Performance Review Report, *supra* note 81, para. 4.2 at 56.

⁸⁷³ *Ibid.*, at viii.

⁸⁷⁴ Mooney-Seus and Rosenberg, *supra* note 3, at xii and 145. The RFMOs reviewed in this study that have defined some socio-economic indicators (NASCO and GFCM) are not reviewed in this thesis.

⁸⁷⁵ Allen, *supra* note 2, at 5.

This “veil of States” on social and economic factors probably has as one of its causes the fact that allocation was designed precisely to allow each State to decide and pursue their own social and economic objectives with independence from the international management regime. As a consequence of this, socio-economic data is usually not collected. But the issue is not only a problem of data collection but an issue that has much deeper implications. Indeed, allocating fishing resources on the basis of socio-economic criteria would entail a comparison and even prioritization of socio-economic objectives that, in isolation, may differ considerably,⁸⁷⁶ but that are also rooted in broader social and economic contexts. Judge Gros refers to this difficulty by stating that

[t]o hold the balance between the economic survival of a people and the interests of the fishing industry of other States raises a problem of the balanced economic development of all, according to economic criteria, in which fishing is only one of the elements taken into account, and of which the bases are international interdependence and solidarity. (...) it is clear that differences of views on these questions do not give rise to justiciable disputes, since these are problems of economic interests which are not the concern of the Court. But the Court cannot make them disappear by refusing to see anything but a conservation problem; the balance of facts and interests is broken.⁸⁷⁷

Two alternatives to deal with this difficulty can be proposed. The first is to abandon the State approach to define fisheries socio and economic objectives for high seas fisheries, and commend that task to RFMOs. The other is to give effect to the socio-economic considerations through a more systematic use of the principle of CBDR and the technique of differentiation, establishing standards that reflect and take into account the different social and economic dependency, and in particular the special needs of developing States. RFMOs already have used this approach, albeit in an unsystematic way. Some examples have already been mentioned: exceptions to fishing effort or catches limitations considered in WCPFC and ICCAT conservation and management measures; and the differentiated “sacrifice rate” required by CCSBT to one developing contracting member.

Thus, differentiated treatment can be a practical tool to give effect to socio and economic factors (dependency, need) in allocation of fishing opportunities. The criteria

⁸⁷⁶ *Ibid.*

⁸⁷⁷ Dissenting opinion of Judge Gros in *Fisheries Jurisdiction (United Kingdom v. Iceland)*, *supra* note 672, para. 31 at 147.

would not be used as a positive factor in the allocation process (which would require a comparison of very different social and economic objectives) but as a negative factor (in order to avoid disproportionate negative impacts on one State). As such, the consideration of socio-economic factors resembles not only the CBDR but also the test of negative minimum used by the ICJ in some of the few cases where socio-economic considerations were included in the process of maritime boundary delimitation.

A few observations need to be made in relation to this suggestion and its implications for international fisheries. Firstly, it is worth mentioning that there is a difference between utilizing differential treatment as a means to take into account socio-economic considerations, and as a means of taking into account the special requirements of developing States. It has already been pointed out that the principle of CBDR addresses, at least in its current formulation, the relationship between developed and developing countries. However, it can be also used to address cases of strong dependency on the relevant fish stock, regardless of the development stage of the State in question.

Secondly, it should be noted that the differential treatment is an exercise of corrective justice.⁸⁷⁸ It implies, therefore, that there is one or more factors that serve as primary allocation criteria, which application is then tempered through a differentiated restriction requirement for States with high dependency on the resource. This can be resisted by some countries, and particularly developing countries, which may consider their particular social and economic dependency— their need - as an entitlement factor rather than a correction factor.

d) Other Fundamental Norms in International Fisheries Allocation

Another aspect that is worth analyzing is the convenience of supplementing the fundamental norm for allocation, equity, with other norms or objectives that can facilitate the resolution of conflicts over scarce resources. In particular, a reference to reasonable use is warranted.

It has been noted that the principle for decisions on use of an international watercourse is the principle of equitable and reasonable utilization. While some scholars see these two standards as synonymous, most consider that they act at different levels.

⁸⁷⁸ Sheldon, *supra* note 20, at 67.

While the equitable use standard looks at the quantity of water *vis-à-vis* the requirements of other States, reasonable use looks at what the State in question does with the water. In this sense, it is argued that an unreasonable use of the resource is, in itself, inequitable.

A standard of reasonableness, as has been mentioned above, can be considered a relevant supplementary standard to assess conflicts between existing users and new entrants, or between coastal States and DWNFs. The protection of existing uses, or of potential uses, can be provided only if that existing or future use is reasonable, considering the circumstances of the particular case.

A standard of reasonableness would require the identification of unreasonable, wasteful uses. But most importantly, it requires information on the fisheries activities developed by participating States. And as has been pointed out, States are reluctant to provide that information. This has its basis in the original justification for quota allocation: allowing States to use the surplus in the form they consider appropriate. However, in cases of increased scarcity and conflict, it can be questioned if this is an aspect of the fisheries regime that need, or can, be maintained. Considering that high seas fisheries have an international component, and that sacrifices are being made by all participating States, the international community and the RFMO should be entitled to verify that the use of the resources by the participating States is reasonable (although not necessarily the most efficient or cost-effective), considering the particular circumstances of the fishery and its participants.

e) Equity as an Open Concept

This third section has attempted to highlight some of the key aspects that need to be addressed in the construction of a normative concept of equity, and to shed some light in relation to developments in other fields of international law. It must be acknowledged, however, that even a concept of equity with high degree of normativity does not exclude a realm of discretion. Excluding it would imply establishing a rule of law, instead of an equitable standard that, by definition, has the flexibility to adapt to the particular circumstances of each case.

Chapter 6. Institutional and Procedural Implications

The previous chapter analyzed the allocation of fishing opportunities from the perspective of equity as a legal standard for allocation of scarce resources. It was concluded that, following the jurisprudence of the ICJ in maritime delimitation, a normative concept of equity requires the development of equitable principles, relevant circumstances, and equitable methods. This chapter addresses some of the institutional and procedural implications that arise from this concept. In so doing, this chapter will critically assess the wide consensus highlighted in chapter 2, namely, that RFMOs are the fora called to develop transparent allocation criteria in accordance with international law.

For this purpose, the chapter addresses first the adequacy and need of a normative concept of equity in negotiated allocation processes. Secondly, it assesses the different institutions that, at least theoretically, could participate in the development of a normative concept of equity for high seas allocations. This assessment allows determining to what extent RFMOs are the only organizations capable of addressing equitable allocation frameworks. Finally, the chapter assesses the contribution of a normative concept of equity to transparency in the allocation process. This latter aspect also allows some general comments on legitimacy and good governance in RFMOs.

Section 1. Role of Equitable Principles in Negotiated Allocations

The normative content of equitable delimitation has been developed by and for judicial decisions. Decisions on allocation of high seas fishing opportunities, however, rest in a political forum: the regional fisheries management commissions or meetings of the parties. Allocations are discussed and negotiated by States through the decision making process of RFMOs. The first question that arises, therefore, is if a normative content of equity is applicable in this different setting.

In the field of maritime delimitation, the ICJ has asserted that States are under the requirement, not only to negotiate in order to arrive at an equitable delimitation, but also to take equitable principles into account in that negotiation. The ICJ stated that

[t]he normative character of equitable principles applied as a part of general international law is important because these principles govern not only delimitation by adjudication or arbitration, but also, and indeed primarily, the duty

of Parties to seek first a delimitation by agreement, which is also to seek an equitable result.⁸⁷⁹

Nevertheless, scholars have objected the idea that States are under the obligation to apply, in negotiated delimitations, identical rules than the dispute settlement bodies. In this respect, Weil states:

States may enjoy complete contractual freedom. Courts and arbitrators, called on to decide on the basis of international law, do not. The judge or arbitrator, as we have seen, is required to find a solution which not only seems equitable to him but is also grounded on legal considerations. And, whereas the equity applicable to governments in a negotiation has a very broad, ill-defined meaning, the equity of the judge or arbitrator is narrowly confined *infra legem*.⁸⁸⁰

In the same line, Kolb noted that

[t]he parties can negotiate and compromise on their rights. Thus the equitable principles can be analyzed, from their perspective, as flexible obligations to be taken into account, indicating a general objective. Here the equitable principles are neither obligations of means nor, strictly speaking, obligations of result. This is so because the consent of the parties *eo ipse* brings about the result and is not subject to external criticism to want of equity.⁸⁸¹

According to these opinions, therefore, States are free to part from a substantive normative concept of equity to favor bargaining and negotiation. In other words, equity in the negotiated agreement does not necessarily imply a form of “controlled equity”, but equity as a form of discretion. Following this line of thought, member States of an RFMO would have discretion to adopt any allocation agreement they consider appropriate. This agreement would be reputed equitable by the sole fact that it has been agreed. In other words, an “equitable” agreement would be the result of bargaining, and bargaining alone.

The premise of this thesis has been, however, that a substantive and normative framework for allocation of fishing opportunities is useful and even necessary for allocation of high seas fishing opportunities. Indeed, previous chapters have described

⁸⁷⁹ *Continental Shelf (Libyan Arab Jarnahiriya v. Malta)*, *supra* note 684, para. 46 at 39. A few years earlier, in the *Gulf of Maine case*, the ICJ had also stated that “the fundamental norm of customary international law governing maritime delimitation (...) is ultimately that delimitation, whether effected by direct agreement or by the decision of a third party, must be based on the application of equitable criteria and the use of practical methods capable of ensuring an equitable result.” (*Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada v. United States of America)*, *supra* note 694, para. 113 at 300)

⁸⁸⁰ Weil, *supra* note 605, at 113.

⁸⁸¹ Kolb, *supra* note 587, at 335.

how the evolution of TAC and allocation demonstrate that there is an ongoing search for some substantive framework or standard that makes the decision-making process on allocations transparent, predictable, non-discriminatory, and fair. Some reasons can be proposed for this perceived need.

A first reason may be found in the multiplicity of actors engage in the bargaining process. In a two State negotiation, it is comparatively easier that an ad-hoc bargaining leads to satisfactory trade-offs for all parties involved. In a 30 State negotiation (which is often the case in RFMOs negotiations) such an ad-hoc bargaining may prove inadequate.

A second reason can be found in the iterative nature of the process. Allocation decisions cannot be permanent because of natural variability of the fish stocks, scientific uncertainty, and variability in the participants. The iterative negotiation process, if done in conditions of ad-hoc bargaining, imposes to the participants a degree of uncertainty that affects the cooperative behavior and the stability of the cooperative regime.

A third reason relates to the international character of high seas fisheries. The fish in the high seas are a global common, open for the exploitation of all States. It has been already highlighted that this freedom to fish in the high seas is qualified by the obligation to cooperate in the conservation of fish stocks. If the terms of that cooperation are, however, established by bargaining alone, again the cooperative behavior of non-participants may be eroded. Regional cooperation is improved in respect to non-participants if it is based on a transparent and substantive normative framework for distributing fishing opportunities, instead of the result of bargaining power.

Section 2. Constructing a Normative Concept of Equity: RFMOs' Role

If agreed that the development of a normative content of equity is useful and necessary for international fisheries law, the next issue that needs to be addressed is the appropriate forum to develop it. Traditionally, as has been noted, the international community has considered that this is best done at the regional level. Indeed, it is argued, an equitable allocation needs to consider the particularities of each region and fish stock.

This understanding of an equitable allocation resembles the theory of *unicum* briefly sustained, but later abandoned, in maritime boundary delimitation law. As it may be remembered, the theory of *unicum* emphasized the equitable result, which depended

entirely upon the facts of the particular case.⁸⁸² The approach of the ICJ changed, however, towards the application of an equitable framework with normative content, a framework that requires a combination of elements: a) equitable principles; b) relevant circumstances; and c) equitable methods; to achieve an d) equitable result.

This equity framework has different components with different levels of generality. Accordingly, each of them can be developed at different levels as well. While it has to be agreed that the fact-intensive task of identifying relevant circumstances and equitable methods are best suited for RFMOs (as will be addressed in further detail in the next section), there is no such requirement in the case of equitable principles. Equitable principles are, indeed,

means to an equitable result in a particular case, yet also having a more general validity and hence expressible in general terms; for as the Court has also said, “the legal concept of equity is a general principle directly applicable as law” (...).⁸⁸³

A consequence of this generality inherent in equitable principles is that their development is not necessarily restricted to RFMOs. This opens the door for different avenues that could participate in the development of equitable principles.

Before entering into an analysis of which those organizations may be, it should be noted that the role of RFMOs is, nevertheless, central to a normative concept of equity for, at least, two reasons. Firstly, equitable principles need to be endorsed by the RFMOs. Equitable principles do not arise “from any natural or logical necessity; it is the result of a legal choice.”⁸⁸⁴ Secondly, equitable principles have a limited role in the normative structure of equity. Indeed, equitable principles are an element, but only one element, of this normative structure. Equity requires, by its own essence, the blending of the generalities of the principles with the particularities of the facts. This has been clearly explained by Weil while noting that

(...) relevant circumstances and equitable principles go hand in hand (...). In short, equitable principles acquire substance only by reference to the relevant

⁸⁸² See: *supra* note 698 and accompanying text.

⁸⁸³ *Continental Shelf (Libyan Arab Jarnahiriya v. Malta)*, *supra* note 684, para.45 at 39.

⁸⁸⁴ Weil, *supra* note 605, at 212.

circumstances in the case, and the relevant circumstances in the case operate only with the help and in the context of equitable principles.⁸⁸⁵

As noted, the fact that a normative concept of equity has some elements that are of general character opens the door for the participation of other agents in its development. This conclusion supports some proposals of a more active role for the global fora in the search for a substantive framework for allocation.⁸⁸⁶ Theoretically perspective, these avenues could be global or regional; they could be public or private; and they could have a political or technical emphasis.

Global fora with a strong political component are represented by instances such as the UN General Assembly, the Informal Consultations of the State Parties to UNFSA, the Review Conference of UNFSA, or the Informal Consultative Process of the United Nations for the Ocean and the Law of the Sea (UNICPOLOS).⁸⁸⁷ FAO provides a global fora with a stronger technical component; while the joint tuna RFMO meetings offer an opportunity to analyze the particular issues of highly migratory stocks.⁸⁸⁸

Academia has a lot to offer in this exploration. It seems apparent that a better understanding of the concept and different expressions of equity for the allocation of scarce resources, in general, and for high seas fisheries, in particular, is required. Independent reports, also common in recent years,⁸⁸⁹ may also provide valuable insights to this process. A current avenue is represented by the International Law Association or the International Law Commission, both of which have been instrumental in the development and codification of the law of international watercourses and the law of the

⁸⁸⁵ *Ibid.*, at 211-212.

⁸⁸⁶ Lodge and Nandan, *supra* note 282, at 74, proposed the development of FAO guidelines on implementation of articles 10 and 11 of UNFSA. Lodge *et al.*, at 11, state: “Although any allocation of participatory rights by an RFMO will almost invariably represent a negotiated outcome between members, there is a potentially important role for external organizations, including independent experts and academics, in driving debate forward.”

⁸⁸⁷ By Resolution 54/33, the UN General Assembly decided to “establish an open-ended informal consultative process in order to facilitate the annual review by the General Assembly, in an effective and constructive manner, of developments in ocean affairs by considering the Secretary-General’s report on oceans and the law of the sea and by suggesting particular issues to be considered by it, with an emphasis on identifying areas where coordination and cooperation at the intergovernmental and inter-agency levels should be enhanced” (UNGA, Resolution on Results of the review by the Commission on Sustainable Development of the sectoral theme of “Oceans and seas”: international coordination and cooperation, A/RES/54/33, 18 January 2000, para. 2, online DOALOS <<http://www.un.org/Depts/los/index>>). There has been 11 UNICPOLOS meetings from 2000 to 2010, addressing a variety of themes on oceans and law of the sea.

⁸⁸⁸ See: <<http://www.tuna-org.org>>.

⁸⁸⁹ See, for example: Lodge *et al.*, *supra* note 11; OECD, *supra* note 15.

sea. The current work of ILA Committee on International Law on Sustainable Development may provide opportunities for the analysis of at least some of the difficulties of high seas fisheries allocation.⁸⁹⁰ They ILC, on the contrary, has manifested certain reticence to address global commons issues.⁸⁹¹

The participation of international dispute settlement bodies could also be considered, but the probability of allocation conflicts being resorted to third party settlement is likely low.⁸⁹² However, some mechanisms to facilitate negotiations have been included within the structure and processes of some RFMO. Indeed, newly-established RFMOs or revised constitutional texts have included negotiation facilitators — including conciliators and expert panels — in the decision-making process.⁸⁹³ Negotiation facilitators may be instrumental for the explicit definition of substantive and procedural standards that a particular RFMO needs to take into account when deciding on allocation of fishing opportunities.

Another avenue is the work of performance review panels. Review panels are usually given the task to assess the extent to which an RFMO is adopting compatible

⁸⁹⁰ The objective of the Committee is to study the legal status and legal implementation of sustainable development. For this purpose the Committee's mandate includes: (i) assessment of the legal status of principles and rules of international law in the field of sustainable development, with particular reference to the ILA New Delhi Principles (now also published as UN Doc. A/57/329), as well as assessment of the practice of States and international organizations in this field; (ii) the study of developing States in a changing global order, particularly the impact of globalization on the sustainable development opportunities of developing countries; (iii) in the light of the principle of integration and interrelationship, a re-examination of certain topics of the international law of development, including analysis of a. the position of the least developed countries in international law; b. the right to development, and; c. the obligation to co-operate on matters of social, economic and environmental concern" (ILA, *First Report of the International Committee on International Law on Sustainable Development*, Berlin Conference 2004, online: ILA <<http://www.ila-hq.org>>).

⁸⁹¹ The topic of shared resources was proposed for the long-term working program of the ILC in 2000. The proposal restricted the scope to resources shared within jurisdictions of 2 or more States, since "environment and global commons raise many of the same issues, but a host of others as well" (ILC, *Report on the work of its fifty-second session*, 1 May-9 June and 10 July-18 August 2000, Supplement No. 10 (A/55/10), Annex, Syllabuses on topics recommended for inclusion in the long-term programme of work of the commission, Annex 3 Shared natural resources of states (Robert Rosenstock), at 141, online: ILC <<http://www.un.org/law/ilc>>).

⁸⁹² For an analysis of the different interpretations on the application of compulsory settlement of disputes to conflicts over management of straddling and highly migratory, see: Oude Elferink, *supra* note 357, at 598–602.

⁸⁹³ The SEAFO Convention considers, at the request of any member State, the intervention of an ad-hoc expert panel in case of objections to any conservation and management measures. In this case, the ad-hoc expert panel can make recommendations on interim measures only. (SEAFO Convention, article 23.1 subparagraph g). The WCPFC Convention considers the possibility of appointing a conciliator for the purpose of reconciling the differences in order to achieve consensus (WCPFC Convention, article 20.4).

conservation measures, the extent to which the RFMO agrees on the allocation of allowable catch or levels of fishing effort, and the extent to which the RFMO provides fishing opportunities in accordance with article 11 of UNFSA.⁸⁹⁴ In performing their mandate, the expert and independent panelists may also provide a useful platform for the definition of some explicit guidelines.

Table 11. Institutions potentially involved in the development of equitable principles for allocation of high seas fishing opportunities

	International organizations and mechanisms	Private organizations
Global level	UNGA UNFSA Review Conference Informal Consultation of State Parties to UNFSA UNICPOLOS FAO	ILA ILC Academia NGOs
Regional level	Meeting of Tuna RFMOs Review panels Dispute resolution mechanisms (conciliators, experts)	

Each of these fora has something to offer to the process of giving equity a normative content to allocation of high seas fishing opportunities. International organizations at the global level have the advantage of creating a political momentum for development, as has been the case for several issues in high seas fisheries, not to mention other fields. Clear examples thereof are the UNGA Resolutions on large-scale pelagic drift-net fishing and its impact on the living marine resources of the world's oceans and seas,⁸⁹⁵ and the protection of deep sea vulnerable marine ecosystems in the high seas.⁸⁹⁶ Technical fora would have the advantage of their expertise and impartiality. Regional initiatives would have the advantage of addressing concrete situations in a more pragmatic way. If proved successful, the solutions may then be adopted by other

⁸⁹⁴ See: UN, *Report of the Sixth Round of the Informal Consultation of State Parties to UNFSA*, New York, 23-24 April 2007, ICSP6/UNFSA/REP/INF.1, 29 May 2007, Annex II Recommended Minimum criteria for Reviewing the Performance of Regional Fisheries Management Organizations (RFMOs), Draft, 13 April 2007, online: DOALOS <<http://www.un.org/Depts/los/index>>.

⁸⁹⁵ UNGA Resolutions 46/215, 47/442, 48/445, 49/436, 50/25, 51/36, 52/29, 53/33, and 55/8 adopted between 1991 and 2000, online: DOALOS <<http://www.un.org/Depts/los/index>>.

⁸⁹⁶ UNGA Resolutions 58/14, 59/25, and 60/31 and adopted between 2003 and 2005, online: DOALOS <<http://www.un.org/Depts/los/index>>.

organizations in a process of transferring best practices that is also a common among RFMOs.⁸⁹⁷

Although all these organizations and mechanisms could potentially participate in the definition of equitable principles, as one element of a normative concept of equity for high seas allocation, the real issue is which of these organizations or mechanisms is in a practical situation to do so. In this regard, it should be recalled that the processes for development of allocation criteria in NAFO and ICCAT revealed the interests of many States to maintain the *status quo*. This incentive has also been reflected in the complex relationship between allocation and conservation, as explained in chapter 4 on intergenerational equity. In that scenario, State-led global fora are probably not promissory avenues.

In other areas where change was also resisted by at least some States – and particularly the conservation agenda – the efforts of environmental non-governmental organizations (ENGOS) have been fundamental for progress in legal frameworks and regional practices.⁸⁹⁸ However, ENGOS have not intervened in the distributional problems of RFMOs, limiting themselves to point out the negative environmental consequences of current allocation practices that have been extensively described in chapter 4.

It is apparent that, for the reasons described above, the introduction of equitable principles and procedures to high seas fisheries allocation is not currently, and is not likely to be in the near future, on the agenda of most of these organizations. Therefore, from practical feasibility rather than legal imposition, each RFMO remains the most suitable avenue to develop an equitable allocation framework that is tailored to its particular needs. It is, nevertheless, possible that the equitable principles and methods developed would then be adopted by other RFMOs, if they prove successful in avoiding or minimizing conflict.

The process could, however, be assisted by scholarly work, whether general or directed to one RFMO or fish stock in particular. Indeed, and as has been illustrated in

⁸⁹⁷ An example of a practice originally adopted by one or few RFMOs that has become general practice is the adoption of “black lists” of IUU fishing vessels.

⁸⁹⁸ In relation to protection of high seas deep-sea vulnerable marine ecosystems, see: <<http://www.savethehighseas.org/index.cfm>>.

the previous chapter, the concept of equity is evolving in international law, in international environmental law, and in international law in the field of sustainable development. The analysis of these developments, both substantial and procedural, and their implications for high seas fisheries, may contribute in the ongoing search for equitable and transparent allocation frameworks.

Section 3. Transparency in Allocation: the Contribution of Equity

The potential avenues to develop and propose equitable principles for the allocation of high seas fishing opportunities do not preclude the central role of RFMOs, or more precisely, their member States. RFMOs not only can participate from the development of those equitable principles, but they have a crucial role in two respects: a) they have to accept and adopt those equitable principles if they are going to translate into effective practices; and b) they are the only organization that can construct a complete substantive framework for allocation of fishing opportunities. Indeed, RFMOs are responsible for the blend between normativity and flexibility⁸⁹⁹ that is the essence of the concept of equity. The process of particularizing general substantive norms so that they can guide action is the function of procedure.⁹⁰⁰

Current Allocation Procedures in RFMOs

The decision-making process in RFMOs has been extensively described elsewhere.⁹⁰¹ It suffices to say here that decisions in RFMOs require consensus or qualified majority of the participating member States.⁹⁰² In some of the RFMOs where

⁸⁹⁹ Kolb, *supra* note 587, at 318, states: “Without the normativity there is no ‘rule’ and everything is reduced to the act of decision-making; without the factual aspects, the ‘rule’ is only an abstraction, without any concrete life of its own.” Van Dijk refers to a process of objectification or crystallization of the equity standard through substantive and procedural criteria (van Dijk, *supra* note 715, at 6-7).

⁹⁰⁰ Lawrence B. Solum, “Procedural Justice” (2004-2005) 78 S. Cal. L. Rev. 181, at 186.

⁹⁰¹ See: McDorman, *supra* note 10.

⁹⁰² CCSBT requires unanimity for adopting decisions (CCSBT Convention, article 7). CCAMLR and SEAFO adopt decisions on substantive matters by consensus (CCAMLR Convention article XII.1; SEAFO Convention, article 17); ICCAT adopts decisions by majority (ICCAT Convention, article III.3). NEAFC and IOTC adopt their decisions on conservation and management measures by a two-thirds majority of the members present and voting (NEAFC Convention articles 3.9 and 5.1; IOTC Convention, article IX.2). SPRFMO adopt its decisions by consensus but, if consensus is not possible, decisions on substantive matters are adopted by a two-third majority (SPRFMO Convention, article 16.1 and 16.2). NAFO adopts its decisions by majority of members present and voting (NAFO Convention, article V.2). All organizations

decisions are generally made by qualified majority, the Convention text requires that allocation decisions be made by consensus.⁹⁰³ In addition, most RFMO Conventions consider an objection or “opt-out” procedure, by which individual member States can unilaterally decide not to be bound by an adopted conservation and management measure. These opt-out procedures may be simple or “ring-fenced”, i.e. subject to certain requirements and conditions.⁹⁰⁴ Only WCPFC does not consider an objection procedure,⁹⁰⁵ however, its decisions on allocation are made by consensus.⁹⁰⁶

With respect to the procedure for decision-making itself, UNFSA generally establishes that States “shall provide for transparency in the decision-making process and other activities of subregional and regional fisheries management organizations and arrangements.”⁹⁰⁷ A similar provision is established in the FAO Code of Conduct.⁹⁰⁸

but the WCPFC consider in their constitutional texts an objection procedure, which can be simple or “ring-fenced”. For decision-making procedures in WCPFC and IATTC, see *infra* note 903.

⁹⁰³ That is the case in WCPFC and IATTC. WCPFC adopts its decisions by consensus (WCPFC Convention, article 20.1). However, in the case that consensus cannot be reached, decisions on substance are adopted by a three-fourths majority of States present and voting provided that such majority includes a three-fourths majority of the members of the South Pacific Forum Fisheries Agency present and voting and a three-fourths majority of non-members of the South Pacific Forum Fisheries Agency present and voting and provided further that in no circumstances shall a proposal be defeated by two or fewer votes in either chamber (WCPFC Convention, article 20.2). *Decisions on allocation of fishing quotas or fishing effort, however, are adopted by consensus* (WCPFC Convention, article 10.4). IATTC, in turn, adopts its decisions by consensus, unless provided otherwise (IATTC Antigua Convention, article IX.1). The consensus of all the members of the Commission is required for decisions on criteria for, or decisions relating to, the allocation of total allowable catch, or total allowable fishing capacity, including carrying capacity, or the level of fishing effort IATTC Antigua Convention, article IX.3 and VIII.1 subparagraph l).

⁹⁰⁴ NEAFC, NAFO, ICCAT, IOTC, include a simple objection procedure. SEAFO includes a “ring-fenced” objection procedure that requires that the objecting State “shall at the same time provide a written explanation of its reasons for making the notification and, where appropriate, its proposals for alternative measures which the Contracting Party is going to implement. The explanation shall specify inter alia whether the basis for the notification is that: (i) the Contracting Party considers that the measure is inconsistent with the provisions of this Convention; (ii) the Contracting Party cannot practicably comply with the measure; (iii) the measure unjustifiably discriminates in form or in fact against the Contracting Party; or (iv) other special circumstances apply” (SEAFO Convention, article 23.1 subparagraph d). The SPRFMO Convention considers similar conditions: “A member of the Commission that presents an objection shall at the same time: (i) specify in detail the grounds for its objection; (ii) adopt alternative measures that are equivalent in effect to the decision to which it has objected and have the same date of application; and (iii) advise the Executive Secretary of the terms of such alternative measures. (c) The only admissible grounds for an objection are that the decision unjustifiably discriminates in form or in fact against the member of the Commission, or is inconsistent with the provisions of this Convention or other relevant international law as reflected in the 1982 Convention or the 1995 Agreement” (SPRFMO Convention, article 17.2 subparagraphs b and c).

⁹⁰⁵ The WCPFC Convention does not include an objection procedure but only a review process (WCPFC Convention, article 20.6).

⁹⁰⁶ WCPFC Convention, article 10.4; and *supra* note 903.

⁹⁰⁷ UNFSA, article 12.1.

Recent RFMO Conventions usually consider a similar provision on transparency requirements.⁹⁰⁹ These transparency requirements can generally be categorized as directed towards “external transparency”: they address mostly participation of non-governmental organizations and stakeholders, as well as appropriate dissemination of non-confidential information.⁹¹⁰ Transparency in the internal processes of decision-making is less addressed. It appears to be the opinion that the consensus-based decision-making process of most RFMOs is sufficient warrantee of participation of, and transparency among, contracting parties.⁹¹¹

However, this assumption is not necessarily warranted by practice, as can be concluded from the historical review of TAC and allocation negotiations, from the performance reviews, and from public opinion. The historical overview provided in chapter 2 has explained that, since its inception and to this day, decisions on allocation are often made in closed meetings, with the participation of head of delegations only.⁹¹² In some cases, negotiation take place among a limited number of participants.⁹¹³ In others, allocation negotiations have taken place outside the framework of the RFMO.⁹¹⁴ It

⁹⁰⁸ FAO, Code of Conduct, *supra* note 25, article 7.1.9: “States and subregional or regional fisheries management organizations and arrangements should ensure transparency in the mechanisms for fisheries management and in the related decision-making process.”

⁹⁰⁹ WCPFC Convention, article 21: “The Commission shall promote transparency in its decision-making processes and other activities. (...)”; IATTC Antigua Convention, article VI on Transparency: “1. The Commission shall promote transparency in the implementation of this Convention in its decision-making processes and other activities”; SEAFO Convention, article 8.9: “The Commission shall adopt rules (...) to provide for transparency in the activities of the Organisation”; SPRFMO Convention, article 18.1: “The Commission shall promote transparency in decision making processes and other activities carried out under this Convention”.

⁹¹⁰ See, for example: UNFSA, article 12.1; IATTC Antigua Convention, article 12.1; SEAFO rules of procedure, rules 33-38; SPRFMO Convention, article 18.2 to 18.4; ICCAT Rules of Procedure in ICCAT, Basic Texts, *supra* note 209, rule 5, and Recommendation 05-12 on Guidelines and Criteria for Granting Observer Status at ICCAT Meetings; IOTC Convention, article VII on Observers.

⁹¹¹ That seems to be implied in CCAMLR, Performance Review Report, *supra* note 81, para. 6 at 83, which states: “The consensus procedure followed by CCAMLR can be considered as transparent and consistent.”

⁹¹² For historical examples thereof, see: *supra* notes 179, 183, and 223.

⁹¹³ See: *supra* note 225 and 226, and accompanying text. For modern example, see: ICCAT, *Report for biennial period, 1998-99, Part I* (1998) (Madrid, Spain: ICCAT, 1999), Annex 10, Report of the Panels 1-4, in Report of Panel 3, para. 6.b.14 at 155, online: ICCAT <<http://www.iccat.int>>.

⁹¹⁴ This is the case in NEAFC with respect to fisheries that are under the primary responsibility of coastal States (see: NEAFC, Performance Review Report, *supra* note 81, at 17). It has also been the general practice in CCSBT for the negotiation of quotas to be allocated to new members (CCSBT, *Report of the Fifth Annual Meeting of the Commission*, Second Part, 10 - 13 May 1999, Tokyo, Japan, Agenda Item 6: Relationship with Non-members, online: CCSBT <<http://www.ccsbt.org>>: “Japan advised that bilateral discussions had been held recently with representatives from Korea and Taiwan on this matter. However, Japan noted that no firm commitments were received”; CCSBT, *Report of the Special Meeting of the Commission*, 16-18 November 2000, Canberra, Agenda Item 2: Status of non-members, para. 11 at 2,

also has highlighted that allocation negotiations, and particularly the data, criteria and relative weights used in the allocation decisions, are usually not reflected in the records of the meetings.⁹¹⁵ Decisions on allocations are made through “black-box processes” in which both the decision-maker and the decision-process are obscured.⁹¹⁶

It is of no surprise, then, that complaints of lack of transparency abound. Lack of transparency in allocation decisions has been noted and criticized during performance reviews. For example, the NEAFC Performance Review Panel recommended providing more transparency of the meetings of coastal States on allocation issues.⁹¹⁷ The ICCAT Performance Review Report explicitly noted issues on transparency. In particular some complained to the panel about an undue influence and even arbitrariness exercised by a limited number of important participants in the decisions on allocation.⁹¹⁸ It is no surprise either that the international community has made repeated calls for RFMOs to develop “transparent” allocation criteria.⁹¹⁹

Towards Transparency: Procedural Aspects of Equity

It seems evident that allocation decisions in RFMOs are in need of improved transparency. The adoption of a normative concept of equity, and one of its elements in particular, may provide a solid basis to achieve that objective.

According to scholars⁹²⁰ and, arguably, recent jurisprudence,⁹²¹ the normative concept of equity includes “equitable methods.” Equitable methods, in maritime

online: CCSBT <<http://www.ccsbt.org>>: “The Chair advised that a series of bilateral discussions had been held with nonmembers”.

⁹¹⁵ See: *supra* note 408 and accompanying text.

⁹¹⁶ Daniel Esty, “Good Governance at the Supranational Scale: Globalizing Administrative Law” (2005-2006) 115 Yale L.J. 1490, at 1528.

⁹¹⁷ NEAFC, Performance Review Report, *supra* note 81, at 48.

⁹¹⁸ “Transparency was raised in the context of the so-called ‘big four’ members (USA, Canada, European Community and Japan). Some other Parties were of the opinion that this group had undue influence on the decision-making processes in ICCAT including the selection of chairs and officials and the allocation of quota to new CPCs. An alternative view put by CPCs of the ‘big four’ is that they actively try to move the business of ICCAT forward at a pace that reflects the needs of ICCAT and the fisheries” (ICCAT, Performance Review Report, at 70). “In discussions with ICCAT CPCs some were concerned with the actual process used to make allocations. Criticisms were made of the so-called “big four” players (Japan, EC, US and Canada) arbitrarily making allocations to members that do not necessarily follow the criteria laid down in 01-25” (*ibid*, at 73).

⁹¹⁹ See: chapter 2; Lodge *et al.*, *supra* note 11, at 41-42.

⁹²⁰ See: Weil, *supra* note 605, at 183-185.

⁹²¹ See: Kolb, *ibid*, at xx.

delimitation law, is understood at the technical methodologies to draw the boundary line: equidistant or median line, line perpendicular to the general direction of the coast, prolongation of the land boundary, or thalweg system.⁹²² In a first approach, and considering the differences in the task, it seems that a technical “method” for allocation of fishing opportunities is indeed unnecessary. However, the issue can be viewed more broadly. Weil notes that:

It would be a mistake to think that the argument about the ‘legalization’ of methods boils down to the question of equidistance as the starting point for the delimitation operation. (...) There is no reason why there should not be rules for every stage of the operation.⁹²³

This broader view of “stages of operation” coincides with van Dijk’s reference to procedural criteria in the normative concept of equity.⁹²⁴ Thus, equity requires not only equitable principles, but also procedural criteria or rules that operationalize those equitable principles in the particular situation, considering the relevant circumstances of the case. Procedure acts as a bridge between the abstract and general equitable principles and the particular circumstances of the case, establishing a clear flow of the decision-making process to avoid “black-box” processes.⁹²⁵ In so doing, the transparency of the decision-making process is improved.

Procedure in RFMOs Allocation Frameworks: Some Examples

A normative concept of equity, thus, contains not only equitable principles, but also equitable methods, or procedural criteria, which allow operationalizing those

⁹²² See: Tanaka, *supra* note 731.

⁹²³ Weil, *supra* note 605, at 185. Those “stages of the process” were identified by Brownlie as the following steps: First: if necessary the area of overlapping claims is divided into separate regions; Secondly: the distance criterion is applied. In the case of opposite coasts this produces a provisional median line (but this is not an application of the equidistance method). In other cases, a line is drawn which reflects the general configuration of the coast of the parties; Thirdly: the application of relevant circumstances may produce a “correction” or “adjustment” of the provisional median line; Fourthly: the factor of proportionality may be applied *ex post facto* to test the overall equity of the delimitation; Fifthly: in disputes concerning access to fisheries, the Court may, if it considers it necessary, and as an *ex post facto* test, enquire whether the overall result “should unexpectedly be revealed as radically inequitable, that is to say, as likely to entail catastrophic repercussions for the livelihood and economic well-being of the population of the countries concerned (Ian Brownlie, *The Rule of Law in International Affairs: International Law at the Fiftieth Anniversary of the United Nations* (The Hague; Boston: Martinus Nijhoff Publishers, 1998) at 176).

⁹²⁴ See: *supra* note 715.

⁹²⁵ Esty, *supra* note 916.

equitable principles in the particular situation. The RFMOs allocation frameworks can be re-assessed through this perspective, then, to more accurately identify the source of their shortcomings. Two rather different examples of frameworks are used for this purpose: ICCAT allocation criteria, and the CCSBT Memorandum of Understanding. Both were analyzed with some detail in chapter 3.

ICCAT Resolution 01-25 on allocation criteria contains only three criteria that can be considered to have a procedural character. Those criteria are the following:

- a) These criteria should apply to all stocks when allocated by ICCAT.⁹²⁶
- b) The allocation criteria should be applied by the relevant Panels on a stock-by-stock basis.⁹²⁷
- c) The allocation criteria should be applied to all stocks in a gradual manner, over a period of time to be determined by the relevant Panels, in order to address the economic needs of all parties concerned, including the need to minimize economic dislocation.⁹²⁸

With no further guidance on how the equitable principles and the relevant circumstances (the “allocation criteria”) shall be operationalized to have concrete expression in particular cases, it shall amount to no surprise that they are reduced to little more than “a well constructed shopping list”⁹²⁹ from which each party chooses the most convenient to support its national interest. The allocation guidelines would benefit, therefore, not only by the explicit identification of further equitable principles that act as direction-finders of equitable results, but also with the definition of the procedure or method that gives those equitable principles a concrete and objective expression in the decisions.

A rather different example is given by the CCSBT allocation framework contained in the memorandum of understanding signed by the three original parties to the Convention.⁹³⁰ Although the memorandum of understanding has not been published and therefore their details have not been available for this research, it can be concluded that the memorandum has a focus on procedural aspects. It identifies landmarks to be achieved that trigger a certain pre-determined variation of allocations and allocation

⁹²⁶ ICCAT, Resolution 01-25, *supra* note 300, section II para. 3.

⁹²⁷ *Ibid.*, section IV para. 20.

⁹²⁸ *Ibid.*, section IV para. 21.

⁹²⁹ Butterworth and Penney, *supra* note 15, at 181.

⁹³⁰ See: *supra* note 396 and accompanying text.

keys.⁹³¹ This allocation framework is, therefore, predictable, objective and transparent to the parties.⁹³² The CCSBT memorandum of understanding, however, apparently failed in making explicit the equitable principles that parties considered in the design of the procedure. Therefore, it has not provided any guidance with respect to the allocation of fishing opportunities to the new actors that have entered the fishery. As such, the allocation framework of CCSBT has been incomplete, resulting in its adequacy to address the particular allocation challenges of this organization.⁹³³

These two examples show that, albeit not sufficient in themselves, the explicit description of procedural aspects in the allocation frameworks is desirable and even necessary to increase normativity, and thus predictability and transparency, of the allocation decisions. Those procedural aspects may vary from case to case, thus no one particular procedural framework can be proposed. However, it is possible to suggest some of the aspects that RFMOs may tackle in the development of procedural aspects of equitable allocation. These may include, *inter alia*:

- a) the precise scope of relevant circumstances
- b) the objective measurement of the relevant circumstances
- c) a time frame for submission of data and its analysis
- d) the sequential or simultaneous application of allocation criteria
- e) the organs or groups in charge of the different steps of the procedure: in this respect, it may be worth considering if the relevant data should be gathered, compiled and analyzed by a “fact-finding group” or even external consultant. It may also be considered, as suggested by Willock and Lack, to resort to arbitrated negotiation or an advisory panel of external experts “in order to facilitate a more transparent and focused discussion”.⁹³⁴
- f) the timeframe for revision of allocations⁹³⁵

⁹³¹ *Ibid.*

⁹³² The transparency of the Memorandum was not sufficient to ease the allocation problem, though. The parties had serious differences regarding the status of the stock and, thus, the allowable catch. These differences led to an arbitration process that was later dismissed because of lack of jurisdiction. See: Butterworth and Penney, *supra* note 15, at 176-181.

⁹³³ See: CCSBT, *Report of the Sixteenth Annual Meeting of the Commission*, *supra* note 312, Appendix 3, Report of the Extended Commission of the Sixteenth Annual Meeting of the Commission, 20 - 23 October 2009, Jeju Island, Republic of Korea, para. 57-59, at 7.

⁹³⁴ Willock and Lack, *supra* note 10, at 27.

⁹³⁵ Lodge *et al.* state: “The experience of RFMOs to date strongly suggests that at the time a decision is taken on allocation an explicit review process should also be agreed. (...) A periodic review would also assist in increasing the degree of transparency associated with allocations” (Lodge *et al.*, *supra* note 11, at 42).

- g) a time frame for the re- assessment of the allocation framework itself.

Some of the proposals for the allocation problem made by scholars and practitioners are also oriented to method or procedure and can be considered by RFMOs in this context. One of those suggestions is the use of the mechanism of attrition of national quotas for the allocation of fishing opportunities to new entrants.⁹³⁶ Similarly, a mechanism for re-allocation of unused quotas can be part of an allocation method or procedure. More broadly, Cox has suggested several options of flexible arrangements, including two-tiered system of allocation for permanent and flexible quotas;⁹³⁷ permanent and seasonal entitlements; senior and junior rights; high security and low security entitlements. These proposals do not provide substantive guidance on how to allocate fishing opportunities, but they provide mechanisms to gradually reallocate fishing opportunities according to previously identified equitable principles. As such, they can be valuable components of the procedure necessary to arrive to equitable, predictable and stable allocations.

Section 4. Concluding Remark: a Digression

This chapter has addressed some institutional and procedural implications of the normative concept of equity discussed in the previous chapter. The emphasis has been in three main considerations. The first consideration relates to the role of a normative content of equity in negotiated agreements. The second is the opportunity for different fora to participate in the construction of a normative structure of equity, albeit with important limitations. The third is the need to establish procedural criteria, or methods, acting as a bridge between the general equitable principles and the relevant circumstances of a particular case. This third component of equity further enhances the normative content of the concept.

⁹³⁶ Butterworth and Penney, *supra* note 15, at 181; Anthony Cox, *Quota Allocation in International Fisheries*, OECD Food, Agriculture and Fisheries Working Papers No. 22 (OECD, 2009), online: OECD <<http://www.oecd.org>>, at 38.

⁹³⁷ “[A]n example of such an approach might involve a certain proportion of the total quota rights being allocated as base quota to the founding members of an RFMO on a permanent basis. The remaining quota could be classified as flexible quota and could be distributed on an annual basis to either RFMO members or non-members through a mechanism such as an auction” (Cox, *ibid*, at 41).

This third element of equity deserves a digression to outline two aspects that are related to this requirement of the definition of equitable procedures or methods in the construction and transparent implementation of equity. The first of those aspects is the concept of good governance, which is a component of the concept of sustainable development⁹³⁸ and, indeed, a one of the principal themes of UNCED.⁹³⁹ Schrijver, citing the Cotonou Partnership Agreement, provides the following account of the term:

[G]ood governance is the transparent and accountable management of human, natural, economic and financial resources for the purposes of equitable and sustainable development. It entails clear decision-making procedures at the levels of public authorities, transparent and accountable institutions, the primacy of law in the management and distribution of resources and capacity building for elaboration and implementing measures aiming in particular at preventing and combating corruption.⁹⁴⁰

If good governance entails clear decision-making procedures, transparent institutions, and the primacy of law in the management and distribution of resources, then a normative concept of equity, and indeed its procedural aspects, are instrumental to achieve good governance in RFMOs.

A deeper look on this issue allows suggesting yet another aspect for consideration. Franck's theory of justice in international law and institutions suggests that fairness is "a composite of two independent variables: legitimacy and distributive justice."⁹⁴¹ Legitimacy, in his definition, is "the attribute of a rule which conduces to the belief that it is fair because it was made and is applied in accordance with 'right process.'"⁹⁴² He also identifies four indicators of legitimacy: determinacy, symbolic validation, coherence, and adherence. The ICJ's construction of a normative concept of equity seeks, indeed, to find some determinacy and coherence to an otherwise content-less concept of autonomous equity.⁹⁴³ Following Franck's analysis on legitimacy, then, the search for a framework of controlled equity increases the legitimacy of the allocation decisions adopted by RFMOs, and of the organizations themselves.

⁹³⁸ Schrijver, *supra* note 453, at 200-203.

⁹³⁹ Sand, *supra* note 475, at 355.

⁹⁴⁰ Schrijver, *supra* note 453, at 202.

⁹⁴¹ Franck, *supra* note 8, at 25.

⁹⁴² *Ibid.*, at 26.

⁹⁴³ See: *supra* notes 701, 702 and 703.

Both the principle of good governance and legitimacy of RFMOs and their allocation decisions support the need to make progress in a structured and substantive equity.

These two aspects provide a good framework to analyze one of the solutions for the problem of allocation of high seas fisheries that has been proposed in different fora and by academics and practitioners, in particular economists. That solution is to keep the scope of bargaining as broad as possible,⁹⁴⁴ and to use “side-payments” or “negotiation facilitators” in the negotiation process.⁹⁴⁵ The proposal emerges from economical analysis based on game-theory that concludes that any cooperative arrangement will only be stable if

(...) each and every participant in a cooperative arrangement must anticipate receiving long term benefits from the cooperative arrangement that are at least equal to the long term benefits, which it would receive, if it refused to cooperate.⁹⁴⁶

Since that is a difficult objective when the problem is the distribution of a limited resource among too many, and increasing number, of participants, the solution proposes to increase the bargaining scope with negotiation facilitators and side-payments. Munro considered that

[s]ide payments become truly significant when the management goals of the coastal states sharing the resource differ. (...) when there are differences in management goals, it is invariably the case that one player places a higher value on the fishery than does the other. (...) When side payments are possible, then the optimal policy is one in which the management preferences of that player placing the highest value on the resource should be given full reign.⁹⁴⁷

This proposal assumes an unstructured process for negotiation of national quotas, where States would have the freedom to incorporate in the negotiation not only any

⁹⁴⁴ Lodge *et al.*, *supra* note 11, at 14.

⁹⁴⁵ Lodge *et al.*, citing FAO, *Report of the Norway-FAO Expert Consultation on the Management of Shared Fish Stocks*, point out that “negotiations over allocations among cooperating states should not be confined to shares of total allowable catch (TAC) alone” (*ibid*, at 14). The FAO Report, in turn, acknowledged the possibility of those negotiation facilitators to be of non-fishing sectors (FAO, *Report of the Norway-FAO Expert Consultation on the Management of Shared Fish Stocks*, Bergen, Norway, 7–10 October 2002, FAO Fisheries Report No. 695 (Rome: FAO, 2002), at 2).

⁹⁴⁶ FAO, *ibid*, at 8. Munro, in the working paper presented at the Consultation, states this condition of stability of the regime – the individual rationality constraint - as: “a solution to the cooperative game will not be stable, unless the payoffs arising from the solution make each and every player at least as well off as it would be under conditions of non-cooperation” (Munro, *supra* note 119, at 10).

⁹⁴⁷ Munro, *ibid*, at 14.

allocation criteria but also any number of interests or “bargaining chips”. Although it may be a sound economic proposal, it may enter into conflict with other values, and in particular with good governance and legitimacy as expressed above. A compromise between those different values may be necessary.⁹⁴⁸

The aspects briefly introduced here fall outside the scope of this thesis and even outside the field of law and into political science. However, while there is no attempt to analyze those issues further, the linkages of good governance and legitimacy with the legal notion of equity, as constructed by the ICJ, should at least be mentioned.

⁹⁴⁸ Lodge *et al* do not refer explicitly to the need to balance these different values, but this need is implicit in the following statement: “[p]olitical sensitivities, side payments and trade-offs clearly have a central role to play in reaching an agreement on allocations (and, in some circumstances, reaching agreement is likely to benefit from closed discussions), but there is nevertheless a need for greater transparency in discussions about allocations” (Lodge *et al.*, *supra* note 11, at 41).

Chapter 7. Quota Trading: Efficient and Equitable?

The purpose of this thesis is to analyze whether, and under what conditions, a legal concept of equity can provide assistance to the allocation of high seas fishing opportunities. For this purpose, previous chapters have analyzed equity as a legal standard for allocation of scarce resources, its status in international law, its acceptance in international fisheries law, and its content. Also, some institutional and procedural implications of the normative concept of equity for high seas fisheries have been highlighted. To finalize this study, this chapter addresses one particular aspect of allocated TAC: the possibility of trading national quotas. The analysis of quota trading in the light of equity considerations is relevant for two reasons. The first reason is that it has been widely recommended by scholars and practitioners as a mechanism that would provide some solutions to current allocation problems. The second reason is that these recommendations do not fully address equity considerations.

The chapter starts by describing the potential benefits of quota trading in a high seas fisheries regime. To better understand the rationale of those benefits, a brief overview of right-based management in fisheries is included. This provides a good framework to analyze a concept of particular relevance: the legal nature of national quotas. The chapter further summarizes the discussions on quota trading that have been carried by some RFMOs, as well as current practices. Finally, the implications of quota trading for intergenerational and intra-generational equity are presented. The chapter ends with a summary of the main conclusions on this topic.

Before addressing these issues, a few words are necessary on three concepts that have some relationship. Indeed, in the case that a RFMO member is not able to catch its allocated quota, there are four options available to the organization. The first is the obvious option of doing nothing: the quota remains uncaught. Three other approaches are available to the organization and its members: the yearly adjustment of over and under-catches, vessel chartering or leasing agreements, and quota trading.

The adjustment of under and over-catches consists on a transfer of quota from one fishing year to the next, without changing the quota holder. Under-catches are added to the quota allocated to the member for the next year, and over-catches are discounted from

it. From a management and conservation perspective, an unrestricted transfer from one year to another is not desirable. Thus, in some cases restrictions to this transfer have been placed by RFMOs.⁹⁴⁹ These restrictions usually include penalizing over-catches with a certain percentage of the over-catch.

Another option is to charter or lease⁹⁵⁰ a vessel from another State to catch the quota. This possibility has been seen with certain caution by RFMO members, both because of their implications for allocation agreements and because of control, monitoring and enforcement challenges.⁹⁵¹ For these reasons, albeit generally allowed, it is usually subject to certain obligations and limitations.⁹⁵²

Lastly, quota trading involves the transfer of whole or part of the quota allocated to a State to another State, whether the recipient is or is not holder of quota in the same fishery. In theory, this transfer can be temporary or permanent. A temporary transfer would involve the transfer of the allocated quota for a particular year or number of years. This latter option is usually resorted to when there is a multi-year scheme in place, and there is certainty or at least reasonable certainty of the quota allocated and susceptible of trade. A permanent trade, on the other hand, would involve the transfer of the

⁹⁴⁹ See, for example: ICCAT, Recommendation 08-05 amending the Recommendation by ICCAT to establish a Multiannual Recovery Plan for Bluefin tuna in the Eastern Atlantic and Mediterranean, para. 14, online: ICCAT <<http://www.iccat.int>>;

⁹⁵⁰ Charterparty is a maritime contract with a shipowner for the use of the whole capacity of a ship by the charterer. There are three types of charterparty. Bare-boat charter, which is a lease of a vessels without regard to charterer purposes and thus, not a charterparty contract; voyage charter; and time charter (Edgar Gold, Aldo Chircop, Hugh Kindred, *Maritime Law* (Toronto, ON: Irwin Law, 2003) at 378-379).

⁹⁵¹ For example, during the discussions of chartering arrangements in the NAFO working group on allocation (which mandate included chartering arrangements) the representative of Japan stated that “if chartering operations are used mainly to fill a gap between the current fishing capacity and the allocation of quota to a Contracting Party, NAFO should not approve the charter.” (NAFO, Report of the Working Group on Allocation of Fishing Rights to Contracting Parties of NAFO and Chartering of Vessels Between Contracting Parties (GC Doc. 99/4), *supra* note 238, at 66). Likewise, the practice of “flag hopping” was condemned because it weakens the link between NAFO quota beneficiaries and harvesting vessels and therefore can potentially have negative effects on the quota system. Notably, the members of the working group framed the problem as NAFO becoming an organization of “quota sellers” (NAFO, Report of the Working Group on Allocation of Fishing Rights to Contracting Parties of NAFO (GC Doc. 00/2), *supra* note 677, at 87).

⁹⁵² WCPFC, Conservation and Management Measure 2009-08 on Charter Notification Scheme, online: WCPFC <www.wcpfc.int>; NAFO, Conservation and Management Measures 2010, *supra* note 236, article 19 on Chartering Arrangements. In some cases, the limitations are stock specific. See, for example: ICCAT, Recommendation 08-05, *supra* note 949, para. 17: “the percentage of a CPC's Bluefin tuna quota/catch limit that may be used for chartering shall not exceed 60%, 40% and 20% of the total quota in 2007, 2008, 2009, respectively. No chartering operation for the Bluefin tuna fishery is permitted in 2010.”

participatory rights of a State in a fishery, or parts thereof. This last figure – quota trading – is the subject of this chapter.

Section 1. Trading Quota: the Golden Solution

Trading national quotas was already proposed in the early discussions on TAC and national allocations in international fisheries. In the panel discussion that took place at the Law of the Sea Institute in 1968, participants identified the negotiability of the quotas as a central element of the system.⁹⁵³ The suggestion was not further considered at that time, but more recently different scholars and policy advisors, and particular economists, have supported trade of national quotas in international fisheries management. The Norway-FAO consultation on management of shared fish stocks,⁹⁵⁴ Lodge *et al.*,⁹⁵⁵ Grafton *et al.*,⁹⁵⁶ Cox,⁹⁵⁷ and Allen,⁹⁵⁸ among others, have praised the benefits of such a feature in the TAC and allocation system. OECD, more cautious, suggests it as a topic to be explored by governments.⁹⁵⁹

The benefits of a tradable system of national allocations rest mostly in economic efficiency. It is proposed that allowing States to trade their national quotas will allow fishing opportunities to be used by those fishers who produce the greatest economic benefits,⁹⁶⁰ i.e., the most efficient fishermen. This, in turn, would lead to elimination of overcapacity.⁹⁶¹

⁹⁵³ Crutchfield, commenting on the problem of new entrants, stated: “if, as seems essential, quotas are made transferrable [*sic*], the problem may be eased somewhat” (Crutchfield, *supra* note 154, at 272). Scott, in the Critique to that presentation, stated: “I would say that negotiability should not be an addendum; it should be central to the whole system thing, from the point of view of economists. Unless quota rights are negotiable there will be an international misallocation of labor” (Scott, “Critique”, in Alexander, *supra* note 154, at 282).

⁹⁵⁴ FAO, *Report of the Norway-FAO Expert Consultation on the Management of Shared Fish Stocks*, *supra* note 945, para. 54 at 10 and para. 63 at 13.

⁹⁵⁵ Lodge *et al.*, *supra* note 11.

⁹⁵⁶ Grafton *et al.*, *supra* note 12.

⁹⁵⁷ Cox, *supra* note 936.

⁹⁵⁸ Allen, *supra* note 2.

⁹⁵⁹ OECD, *supra* note 15, at 15: “There may also be scope for governments to “think outside the box” in exploring ways to further strengthen RFMOs. Governments could examine innovative policy directions, such as alternative rights structures and tradable quotas. Such analysis has the potential to enlarge the range of policy options and can help to find ways to better align incentive structures within the broader RFMO framework.”

⁹⁶⁰ Allen, *supra* note 2, at 38.

⁹⁶¹ *Ibid.*

It is also suggested that trade mechanisms would invest the quota regime with the required flexibility to cope with extraordinary circumstances. Examples of these extraordinary circumstances are the situation of fishing fleets taking by-catches of what are target stocks for others;⁹⁶² and the situation of resources that are highly mobile, particularly between areas under different jurisdiction.⁹⁶³

It is proposed further that such a system would improve prospects for cooperation⁹⁶⁴ and lead to more stable fisheries regimes.⁹⁶⁵ In particular, trade of national quotas are suggested as a way to respond to the apparently insurmountable problem represented by new entrants to the fisheries.⁹⁶⁶ Trade mechanisms, it is argued, would strike an appropriate balance between three interests: the interests of current participants in the fishery, the aspirations of new participants, and the conservation of the stock. With a trade mechanism, current participants would be rewarded for their past efforts; new participants would have the opportunity to participate in the fisheries based on a non-discriminatory basis; and the fishing activity over the stock would remain at sustainable levels.

Since the benefits assigned to quota trading are multiple, the system of quota trading can also be designed with an emphasis on one or more of them. In particular, the quota trading system can be designed so as to represent flexible management options, complementing but not substituting national quota allocations; or it act as a mechanism for access to quotas (and thus, to fishing in the high seas). This latter option is mostly presented as an alternative to allow new entrants to the fisheries.

Section 2. Towards Right-based Management in High Seas Fisheries?

To better understand the reasons to advocate for tradable quotas, it is useful to give an overview of rights-based fisheries management. It is widely believed that

⁹⁶² *Ibid.*

⁹⁶³ Lodge *et al.*, *supra* note 11, at 36-37.

⁹⁶⁴ Cox states: “the ability to trade rights in an agreement would likely improve the prospects for a stable cooperative agreement”; and adds that “tradability does improve the potential co-operative surplus, and hence would improve the incentives for cooperation” (Cox, *supra* note 936, at 39).

⁹⁶⁵ *Ibid.*

⁹⁶⁶ Lodge *et al.*, *supra* note 11, at 37. It is also an implicit objective in the section on tradability of rights, improved economic efficiency, and the prospects for cooperation in Cox, *ibid.*, at 39-40.

property rights are a necessary element of sustainable fisheries.⁹⁶⁷ An “open access” regime necessarily leads to a tragedy of the commons.⁹⁶⁸ Property rights, on the contrary, provide incentives for their holders to invest in long-term conservation of the stocks because “higher future returns from fishing will be incorporated into the value of their asset.”⁹⁶⁹ This higher future returns are represented by stable and higher quotas, or better price for their quotas if trade is allowed.

While property is often used to refer as a thing, legally property is a description of a legal relationship with a thing,⁹⁷⁰ or, in other terms, a “bundle of rights” over a thing.⁹⁷¹ The powers included in the bundle are identified as: the power to use a thing, the power to take its yield, and the power to dispose it.⁹⁷² From an economic perspective, Scott identifies four characteristics of property: exclusivity, duration, security, and transferability.⁹⁷³ The stronger these characteristics are, the stronger the power relationship with a thing or, in other words, the stronger the property. As stated by Gray, “[p]ropertiness is represented by a continuum along which varying kinds of property status may shade finely into each other.”⁹⁷⁴ In Gray’s analysis, the most important characteristic, and which determines “propertiness”, is excludability.⁹⁷⁵ “A resource is excludable only if it is feasible for a legal person to exercise regulatory control over the access of strangers to the various benefits inherent in the resource”.⁹⁷⁶ As a consequence, he asserts that property is not about enjoyment of access but on control over access.⁹⁷⁷

The history of fisheries regulation can be viewed as a history of measures that aim at establishing rights that attain, as far as possible, the characteristics of exclusivity,

⁹⁶⁷ Andrew Serdy, “Trading of Fishery Commission Quota under International Law” (2007) 21 *Ocean Yearbook* 265, at 265; Allen, *supra* note 2, at 38. See also: Barnes, *supra* note 110.

⁹⁶⁸ Garret Hardin, “The Tragedy of the Commons” (1968) 162 *Science* 1243.

⁹⁶⁹ Grafton *et al.*, *supra* note 956, at 7.

⁹⁷⁰ M. Tsamenyi and A. McIlgorm, “Enhancing Fisheries Rights through Legislation – Australia’s Experience”, in Ross Shotton (ed.), *Use of Property Rights in Fisheries Management*, FAO Fisheries Technical Paper No. 404/2 (Rome: FAO, 2000) 88, at 88.

⁹⁷¹ Kevin Gray, “Property in Thin Air” (1991) 50 *Cambridge Law Journal* 252, at 252.

⁹⁷² A. Scott, “Introducing Property in Fishery Management” in Ross Shotton (ed.), *Use of Property Rights in Fisheries Management*, FAO Fisheries Technical Paper No. 404/1 (Rome: FAO, 2000) 1, at 7. Tsamenyi and McIlgorm note, however, that property does not need to be susceptible of transfer (Tsamenyi and McIlgorm, *supra* note 970, at 8).

⁹⁷³ Scott, *ibid.*, at 5.

⁹⁷⁴ Gray, *supra* note 971, at 296.

⁹⁷⁵ *Ibid.*, at 268.

⁹⁷⁶ *Ibid.*

⁹⁷⁷ *Ibid.*, at 294.

duration, security and transferability. At a national level, those characteristics were included by introducing regulatory measures: limitation on access, quotas, individual quotas, and eventually individual transferable quotas.

At the international level, the same trend can be observed. The introduction of the EEZ was an important step to introduce (national) exclusivity to vast fisheries resources that were, by then, subject to an (international) open access regime. The obligation of cooperation to conserve high seas fisheries resources, and in particular the provision of UNFSA that bans fishing activities outside the regional management frameworks, can be considered a further step to increase exclusivity in high seas fisheries.⁹⁷⁸ Additional efforts to improve exclusivity are undertaken through the plethora of initiatives aimed at stopping illegal, unregulated, and unreported catches, which include IUU black lists, flag State measures, trade documentation schemes, market measures, and port State measures.⁹⁷⁹ The TAC and national allocations were also measures that attempted to increase the exclusive character of fishing in the high seas. As was mentioned in chapter 2, the goal of TAC and allocations can be viewed as an effort to establish “boxes of jurisdiction” in the high seas. These functional “boxes of jurisdiction” were supposed to allow States access to the fishery without interference by other States. Quota trading, therefore, can be regarded as yet another progressive step aimed at improving the property qualities of high seas fisheries regime. And, it is claimed, if the property qualities of high seas fisheries regimes are stronger, then the benefits described in the previous section could be achieved.

The property right system faces, however, a fundamental contradiction with the high seas legal regime. Property rights require exclusivity or excludability; the fundamental principles of international fisheries law are freedom of the high seas and sovereign State equality. It is true that UNFSA and recent developments have made important legal and practical progress in improving exclusivity, as was just pointed out.

⁹⁷⁸ UNFSA, articles 8(3), 8(4), 17(1) and 17(2).

⁹⁷⁹ Examples of those initiatives are: the FAO International Plan of Action IPOA IUU, *supra* note 72; the *Port State Agreement*, *supra* note 72; the FAO Expert Consultation on Flag State Performance, held in Rome between the 23 and 26 June 2009; High Seas Task Force, *Closing the Net: Stopping illegal fishing on the high seas*, Governments of Australia, Canada, Chile, Namibia, New Zealand, and the United Kingdom, WWF, IUCN and the Earth Institute at Columbia University (Bellegarde, France: Sadag SA, 2006); the project *Closing the Net: Stopping illegal fishing on the high seas*, online: [Closing the net <http://www.closingthenet.info>](http://www.closingthenet.info).

But it is also true that important legal and practical obstacles remain and make that exclusivity somewhat illusory. Among those obstacles, it is important to mention: the consensus-based decision making in RFMOs and the objection procedures; the inapplicability of UNFSA provisions to non-parties to the agreement; flags and ports of convenience; and compliance and enforcement challenges for both members and non-members.

Because of these circumstances, the exclusivity – the control of access – is limited in the high seas both from a legal and practical perspective. Thus, property in its full legal and economic sense cannot exist. This is the conclusion to which Serdy arrives while analyzing the question: “national allocations under open access – what are they?”⁹⁸⁰ He argues, therefore, that in agreeing to national allocations, States are not establishing a property right but departing *inter se* from the residual freedom of fishing on the high seas⁹⁸¹ by agreeing on a limit to their own catch in return from the acceptance of similar limits by other member States.⁹⁸² In this interpretation, the practice of quota trading is not legally a transfer of rights, but an amendment to the reciprocal limitation agreement that requires, therefore, the waiver of all participating States.⁹⁸³

In this regard, it is however worth remembering the relative nature of the concept of property, as explained by Gray. He asserted that “[p]roptiness is represented by a continuum along which varying kinds of property status may shade finely into each other.”⁹⁸⁴ Thus, depending on the practical barriers for exclusivity, the duration of quota allocations, and the conditions of quota trading, a national quota can in practice, if not legally, become close to property. If not a right, a *quasi* right.⁹⁸⁵

Section 3. Trading Quotas in RFMOs: Theory and Practice

Despite the multiple benefits advocated by scholars and policy advisors, trade mechanisms for national quotas have faced the reluctance of RFMOs member States. None of the Conventions make a reference to this possibility. At the framework level,

⁹⁸⁰ Serdy, *supra* note 967, at 266.

⁹⁸¹ *Ibid.*, at 270.

⁹⁸² *Ibid.*, at 271.

⁹⁸³ *Ibid.*, at 271-273.

⁹⁸⁴ Gray, *supra* note 971, at 296. See also: *supra* note 974.

only ICCAT has an explicit reference to trade of national quotas, prohibiting its practice.⁹⁸⁶ Quota trading practices are not common either. Serdy identifies three organizations where quota trading has been reported: ICCAT, NAFO, and NEAFC.⁹⁸⁷

What follows is a review of the way quota trading has been addressed by different RFMOs, both at the level of discussions and practical implementation.

Quota Trading in ICCAT

Quota trading was explicitly discussed in the ICCAT ad-hoc working group on allocation criteria. The approach to the subject can be categorized as dual. Selling and trading of quota had a widespread condemnation.⁹⁸⁸ Some delegations insisted that, if allocation was adjusted to the needs of each contracting party, no trade would be necessary.⁹⁸⁹ At the same time, the advantages of allowing temporary transfers were also acknowledged and indeed some transfers had already taken place in some fisheries.⁹⁹⁰ In the opinion of the members of the ad-hoc working group on allocation criteria, quota transfers were not an allocation but rather a management issue.⁹⁹¹

The topic could not be solved by the working group and was raised to the Commission for its resolution.⁹⁹² The draft criteria presented by the working group included a prohibition on selling and trading quota, but its chair explained to the Commission that there was a wide-spread acceptance of temporary transfers. As a

⁹⁸⁶ ICCAT Resolution 01-25, *supra* note 300, at para. 27: “No qualifying participant shall trade or sell its quota allocation or a part thereof.”

⁹⁸⁷ Serdy, *supra* note 967, at 266; and Andrew Serdy, “International Fisheries Law and the Transferability of Quota: Principles and Precedents”, paper presented at the Inter-American Tropical Tuna Commission (IATTC) Workshop on Rights-Based Management and Buybacks in International Tuna Fisheries, La Jolla, 5 – 9 May 2008, online: IATTC <<http://www.iattc.org>>) [“International Fisheries Law and the Transferability of Quota”]. Mention is made also to the now extinguished International Baltic Sea Fisheries Commission (IBSFC).

⁹⁸⁸ According to the ICCAT Report, the following countries condemned quota selling and trading: Canada, USA, Japan, South Africa, Morocco, Brazil, EC, Cote d’Ivoire, Uruguay, Chinese Taipei, and Mexico (ICCAT, Report of the 4th meeting of the ICCAT ad-hoc working group on allocation criteria, Murcia, Spain, 7-9 November 2001, included in Annex 7 of the Proceedings of the 17th Regular Meeting of the Commission, *supra* note 303, at 182.

⁹⁸⁹ ICCAT, Proceedings of the 17th Regular Meeting, *ibid*, para. 8.3 at 52.

⁹⁹⁰ ICCAT, Report of the 4th meeting of the ICCAT ad-hoc working group on allocation criteria, *supra* note 988, at 182.

⁹⁹¹ *Ibid*.

⁹⁹² ICCAT, Proceedings of the 17th Regular Meeting, *supra* note 303, para. 6.3 at 51.

consequence, the Commission kept the prohibition in the allocation guidelines,⁹⁹³ but adopted Recommendation 2001-12 regarding the temporary adjustments of quotas. This recommendation limited itself to state that “any temporary quota adjustment shall be done only under authorization by the Commission.”⁹⁹⁴

Thus, ICCAT has generally proceeded on a case by case basis allowing temporary transfer of quotas according to Recommendation 2001-12. The authorized transfers are usually reflected in the stock-specific conservation and management recommendations, identifying the parties involved in the quota trade and the amount traded.⁹⁹⁵ A novel approach, however, was introduced in the rebuilding program of Western Atlantic bluefin tuna. Recommendation 2006-06 introduced a blank authorization to transfer quota for contracting parties with quota allocation, subject to various restrictions. The system was maintained, with a slight modification, by Paragraph 10 of Recommendation 08-04. The current text reads:

Notwithstanding the *Recommendation by ICCAT Regarding the Temporary Adjustment of Quotas* [Rec. 01-12], in between meetings of the Commission, a CPC [Contracting Party] with a TAC allocation under paragraph 6 may make a one-time transfer within a fishing year of up to 15% of its TAC allocation to other CPCs with TAC allocations, consistent with domestic obligations and conservations considerations. The transfer shall be notified to the Secretariat. Any such transfer may not be used to cover overharvests. A CPC that receives a one-time quota transfer may not retransfer that quota. For parties with a quota allocation of 4 t, the transfer may be up to 100% of the allocation.⁹⁹⁶

OECD has noted that “[t]he use of quota exchanges has reportedly become increasingly common in ICCAT (...), although there is limited transparency on such

⁹⁹³ ICCAT, Resolution 2001-25, *supra* note 300, para. 27.

⁹⁹⁴ ICCAT, Proceedings of the 17th Regular Meeting, *supra* note 303, at 54, and Recommendation 12-01 on temporary adjustment of quotas, included as Annex 9-2 in ICCAT, *ibid*, at 216 (still in force).

⁹⁹⁵ For example, ICCAT Recommendation 08-04 on Western bluefin tuna, paragraph 6 subparagraphs d) and e), read: “d) Notwithstanding paragraph 8 below, in 2009, 73 t will be transferred to Canada from Mexico’s 2007 underage; e) Notwithstanding paragraph 8 below, in 2010, underharvests carried forward by Mexico from 2008 to 2010 will be subsequently transferred to Canada, such that Canada’s initial allocation (excluding the bycatch allowance listed in 6 a) for 2010 is 480 t. If such a transfer results in an initial Canadian allocation (excluding the by-catch allowance listed in 6 a) of less than 480 t, then a transfer of underharvest from the US will be used to bring Canada’s initial 2010 allocation (excluding the by-catch allowance listed in 6 a) to 480 t” (ICCAT, Supplemental Recommendation 08-04, *supra* note 356).

⁹⁹⁶ ICCAT, Recommendation 08-04, *ibid*, para. 10. The previous measure was included in ICCAT, Recommendation 06-06 on Supplemental Recommendation by ICCAT concerning the Western Atlantic Bluefin Tuna Rebuilding Program, para. 9, online: ICATT <<http://www.icatt.int>>. The earlier version did not include the last sentence, allowing for 100% of transfer for parties with a quota allocation of 4 tones.

transactions.”⁹⁹⁷ The ICCAT performance review panel, in turn, noted that the prohibition of quota trading contained in the ICCAT Resolution 01-25 is reasonable in this particular case, considering that ICCAT “catch reporting is unreliable for most species and the ability to trade quota would only further confuse the data reliability.”⁹⁹⁸ Considering these difficulties, but also the advantages of allowing quota trading both to new entrants and existing contracting parties, the panel recommends the Commission to analyze the implications of a quota trade market in ICCAT.⁹⁹⁹

Quota Trading in NAFO

Quota trading was not explicitly discussed in the NAFO working group on allocation of fishing opportunities to contracting parties. Only some tangential references were made while discussing possible margins for reallocation of fishing opportunities for stocks under TAC.¹⁰⁰⁰ As a consequence, the unadopted NAFO allocation guidelines are mute in this respect.¹⁰⁰¹

The quota trading practices in NAFO are limited. The Fisheries Commission adopted, at least with respect to squid *Illex* in subareas 3 and 4, a “blank” authorization allowing an increase in the national allocations resulting from a transfer from any coastal State.¹⁰⁰² Some trade has apparently occurred without prior explicit authorization.¹⁰⁰³ However, trades are not a common practice.¹⁰⁰⁴

⁹⁹⁷ OECD, *supra* note 15, at 55.

⁹⁹⁸ ICCAT Performance Review, *supra* note 81, at 74.

⁹⁹⁹ *Ibid.*, at 74 and para. 54 at 88.

¹⁰⁰⁰ It was suggested by one party that in an active fishery, the transfer procedure takes care of reallocation as appropriate. The chairman, in turn, noted that a “reasonable review process in conjunction with the use of transfers (in the short term) could be useful” in addressing reallocation of fishing opportunities (NAFO, Report of the Working Group on Allocation of Fishing Rights to Contracting Parties of NAFO (GC Doc. 00/2), *supra* note 677, at 87).

¹⁰⁰¹ NAFO Guidelines, *supra* note 390.

¹⁰⁰² NAFO, Quota table 2010, Squid Subareas 3+4, note 1: “Any quota listed for squid may be increased by a transfer from any “coastal state” as defined in Article 1, paragraph 3 of the NAFO Convention, provided that the TAC for squid is not exceeded. Transfers made to Contracting Parties conducting fisheries for squid in the Regulatory Area shall be reported to the Executive Secretary, and the report shall be made as promptly as possible.” (NAFO, Conservation and Enforcement Measures 2010, *supra* note 236, note 1). See also: Serdy, *supra* note 967, at 283.

¹⁰⁰³ Serdy, *ibid.*

¹⁰⁰⁴ Serdy notes that between 2001 and 2005, only two trades were notified to the Fisheries Commission (*ibid.*, at 284).

Quota Trading in NEAFC

As in the case of NAFO, trade of quotas has not been explicitly discussed in NEAFC. Nevertheless, the organization has allowed, or more precisely acknowledged, the practice of quota trading in one particular fishery. Recommendation I:2010 on conservation and management of blue whiting in the Convention Area establishes in para. 6 that

[q]uotas that are transferred to a Contracting Party to be fished within national waters of another Contracting Party may be fished in the areas defined in paragraph 3 a, subject to agreement between the Contracting Parties concerned.

No communication to the secretariat is explicitly required; however, control of quotas makes that communication necessary and therefore it is to be presumed that it occurs.¹⁰⁰⁵

It should be noted, however, that NEAFC management system for some species rely on coastal States agreements. Thus, bilateral agreements regarding quota trading and access to EEZ are not necessarily reflected in the NEAFC recommendations.

Quota Trading in WCPFC

The working paper on allocation prepared for the WCPFC Secretariat included quota trading as one of the aspects to be considered by the Commission in the design of appropriate allocation criteria. Although the authors of the paper apparently endorse quota trading for high seas fisheries management, they were cautious to recommend annual, or short-term, transfer at the beginning of the system.¹⁰⁰⁶

The discussion of allocation has been postponed in the WCPFC agenda, and to this day it has not been resumed.

Quota Trading in CCSBT

More interesting is the discussion process that took place in the CCSBT. In 2003, the issue was raised in the commission, which recommended further analysis including

¹⁰⁰⁵ Along with the Recommendation, the provisions of the 2010 Scheme of Control and Enforcement were analyzed. None include any reference to communications of quota transfers to the secretariat.

¹⁰⁰⁶ Agnew *et al.*, *supra* note 10, at 11: “[G]iven the complexity of a transfer system it would be sensible initially only to allow annual transfers, but longer term transfers might be possible later, perhaps along the 3-year moving average designed for the Vessel Day Scheme. Some limit on transfers may have to be imposed to avoid concentration of effort in particular areas or times.”

independent legal advice.¹⁰⁰⁷ This legal opinion concluded that trade of national quotas was feasible with the authorization of the Commission but not as a unilateral act of any member. Access to members EEZ, on the other hand, could be arranged on bilateral arrangements without the approval, but with advice to, the Commission.¹⁰⁰⁸

Despite the favourable opinion, most members remained reluctant to address the issue and declared that they were “not generally disposed towards quota trading in the current situation of the [Southern bluefin tuna] stock and where Members were considering a reduction in catches”.¹⁰⁰⁹ The different opinions expressed by the delegates, as summarized in the respective meeting report, were:

- That quota trading should be considered when the Management Procedure is implemented since at that stage, the TAC would be based on scientific information and a procedure should be in place for deciding national allocations of the TAC;
- While the stock was considered to be in a serious state, unused quota should not be re-allocated through quota trading which would increase catch; and
- That in principle quota trading was not desirable because a Member should not profit by trading its unused quota with another Member and because allocations are not conferred on a permanent basis.¹⁰¹⁰

Despite the insistence and support expressed by two members,¹⁰¹¹ the issue was not brought up again in the Commission since it was not considered a priority.

It should be noted that CCSBT has initiated a process to adopt a Strategic Plan for the Commission. A draft Strategic Plan was presented for consideration of the Commission at their 2009 meeting.¹⁰¹² The draft plan includes the implementation of flexible management arrangements, including quota trading; and considers, among the

¹⁰⁰⁷ The legal advice of William Edeson was required. The report produced, is not publicly available.

¹⁰⁰⁸ Edeson, as cited by Serdy, *supra* note 987, at 23.

¹⁰⁰⁹ CCSBT, *Report of the Twelfth Annual Meeting of the Commission*, 15 October 2005, Narita, Japan, Appendix 3, Report of the Extended Commission of the Twelfth Annual Meeting of the Commission 11-14 October 2005, Taipei, Taiwan, para. 107, online: CCSBT <<http://www.ccsbt.org>>.

¹⁰¹⁰ CCSBT, *Report of the Eleventh Annual Meeting of the Commission*, 19-22 October 2004, Busan, Republic of Korea, Appendix 3, Report of the Extended Commission of the Eleventh Annual Meeting of the Commission, 19-22 October 2004, Busan, Republic of Korea, para. 73 at 11, online: CCSBT <<http://www.ccsbt.org>>.

¹⁰¹¹ Korea and Philippines, which as recent members to the organizations considered quota trade as a solution to match their fishing aspirations (See: CCSBT, *Report of the Twelfth Annual Meeting of the Commission*, *supra* note 1009, Agenda item 14, Opening Statement by the Republic of Korea in Attachment 4-5, and Opening Statement by the Philippines in Attachment 5).

¹⁰¹² CCSBT, *Report of the Sixteenth Annual Meeting of the Commission*, *supra* note 312, Appendix 3, Report of the Extended Commission of the Sixteenth Annual Meeting of the Commission 20-23 October 2009, Jeju Island, Republic of Korea, Attachment 16, Draft Strategic Plan for CCSBT.

activities of the plan, developing a framework for quota trading between members and cooperating non-members.¹⁰¹³ This activity was assigned a low to medium priority.¹⁰¹⁴ The strategic plan will be further discussed during the 2010 meeting.¹⁰¹⁵

Quota Trading in CCAMLR

As has been mentioned above, CCAMLR management regime does not rely on national quotas, but on a TAC distributed to specific geographical areas. Thus, transfer of quotas has not arisen as an issue for discussion. However, it is worth mentioning that the performance review panel of CCAMLR encouraged the analysis of the implementation of a system of tradable quotas. This recommendation derives from the concern expressed by the panel on a potential blow-out of fishing capacity and effort in the CCAMLR, considering that the management regime does not provide disincentives for overcapacity. To address this issue, the Panel recommended the establishment of a small group of experts to explore and report on the advantages and disadvantages of approaches and actions to prevent or eliminate excess fishing capacity, to afterwards review and adopt appropriate approaches and actions as a matter of urgency.¹⁰¹⁶ The panel included, as one of the approaches which analysis it was recommended, “a system of annual tradable units of quota with a very clear understanding that they bestow no ongoing rights and will be reallocated for each successive fishing period.”¹⁰¹⁷ The Commission has not yet acted on this particular suggestion.

A Summary of RFMOs Practice

Quota trading faces a mixed reaction by RFMOs members. Quota trading as a general mechanism to enter the fishery has generally a negative response by State members. There is a preoccupation and reluctance to transform RFMOs in quota seller organizations, or for quota holders to have a financial benefit from selling its quota. Quota trading as a mechanism to allow some flexibility in quota management is, on the

¹⁰¹³ CCSBT, Draft Strategic Plan for the Commission, *ibid*.

¹⁰¹⁴ *Ibid*.

¹⁰¹⁵ CCSBT, Report of the Sixteenth Annual Meeting of the Commission, *supra* note 312, Appendix 3, para. 42 at 5.

¹⁰¹⁶ CCAMLR, Performance Review, *supra* note 81, section 3.6.2 at 61.

¹⁰¹⁷ *Ibid*, section 3.6.2 at 62.

other hand, more accepted. This dual approach is clearly reflected in the ICCAT framework and practices.

The practices of quota trading are limited, albeit reportedly growing in ICCAT. In all cases, trade occurs exclusively between traditional fishing States for the relevant stock, i.e., between members of the RFMO with a previously allocated quota in the same fishery. Thus, in practice, quota trading does not act as a mechanism to accommodate the fishing aspirations of new entrants or of existing members without a quota in the fishery. It should be noted, as well, that transfers from coastal States participating in the international management, in particular with respect to straddling stocks¹⁰¹⁸ but also in the case of highly migratory stocks,¹⁰¹⁹ appears to be more frequent and less of a concern for contracting parties.

The agreements to trade quota trading are made on a yearly or multi-year basis, but not indefinitely. In other words, what States transfer is not their participation in the fishery as recognized in the allocation agreements, but more limited, the annual allocation that the participation creates.¹⁰²⁰

From a procedural point of view, quota trade requires agreement of the respective Commission. This agreement can be given either on a case-by-case basis, or as a prior, but conditioned, authorization. These conditions usually refer to the number of transactions allowed any given year, limits on the quantities to be transferred, and limitations on re-transfers of quota. In the case of a quota trade pursuing a prior blank authorization, communication to the secretariat is required.

Section 4. Quota Trading in Light of Equity

The previous sections provided a brief background on the rationale for quota trading, and of actual trade practices in RFMOs. This chapter analyzes them critically

¹⁰¹⁸ In the case of NAFO and NEAFC, quota trade refers to coastal States transferring part of its quota (see *supra* note 1002 and NEAFC, Recommendation I:2010, online: NEAFC <<http://www.neafc.org>>).

¹⁰¹⁹ The external legal report of the CCSBT considers a general procedure for quota trade that requires authorization of the Commission, and a special procedure for quota trade by coastal States that requires communication only. See: *supra* note 1008.

¹⁰²⁰ Grafton *et al.* make a distinction between the country share, which is permanent, and the annual allocation which the permanent share would generate. The latter, in their opinion, can be subject to transfer (Grafton *et al.*, *supra* note 12, at 9).

from the perspective of equity. Before entering that analysis, however, a few remarks are warranted in regard to the main objective of quota trading: efficiency.

The objective of establishing TAC and national quotas, and of allowing quota trading, is to provide the high seas fisheries access with more characteristics of property. Property right based management is believed to increase the incentives for long-term conservation and to make the use of resources more efficient. Indeed, quota trading, so it is believed, would allow the resources to be allocated to the most efficient fisher. Efficiency, as may be remembered, was also the main reason to adopt TAC and national allocations in the first place. The rationale behind these measures was that, by eliminating competition with other States over a common resource, States would have incentives to improve the efficiency of the fishing activity and therefore improving net economic benefit. During those early analyses, however, it was recognized that there are other rational, non-economic, reasons driving fisheries management, and that those reasons may lead States not to adopt efficient management measures.¹⁰²¹ Among the non-economic objectives of fisheries management, particular mention was made to the maintenance or expansion of employment, and to the protection of vulnerable coastal fishing communities.¹⁰²²

This parallelism deserves three observations. The first observation is that the proponents of quota trading as a solution for the efficient allocation of resources may be overlooking, once again, the importance of non-economic objectives in national fisheries management. Indeed, and although TAC and quota provided with the incentives to improve economic efficiency, that is far from being the case in reality.¹⁰²³ Undoubtedly this is the consequence of several factors, including the already mentioned feeble nature of “property rights” of high seas fisheries resources. However, non-economic objectives for fisheries management may also be part of the explanation.

The second observation relates to the pertinence of one of the efficiency arguments presented for the advocates of quota trading to high seas fisheries. Quota trading, it is proposed, would reward quota holders in case they exit the fishery. It is

¹⁰²¹ Crutchfield, *supra* note 154, at 270. See also: Scott, “Critique”, in Alexander (ed.), *supra* note 154, at 282.

¹⁰²² Crutchfield, *ibid*, at 271.

¹⁰²³ Indeed, as already pointed out, the history of high seas fishing regimes shows that fishing remains highly inefficient. See: *supra* note 4 and accompanying text. See also: Barnes, *supra* note 110, at 135.

precisely because the quota share has a value for the retiring fishermen that it provides incentives for long-term conservation. This makes a strong case at the national level. But allocating quotas to fishing companies or fishworkers is different from allocating fishing opportunities to States. Before considering the option of trading quota, it is a more logical pattern of State behaviour to re-allocate available fishing opportunities among their own nationals.

This logic is even more appalling if one considers the past experience of allocation of fishing opportunities in the high seas. As has been extensively described in chapters 3 and 4, allocation agreements are usually possible only after States have engaged in a race to fish that increases their participation in the fishery to levels unsustainable for the fish stocks. As a consequence, fishing opportunities allocated are almost inevitably below the existing fishing capacity of States participating in the fishery. In a scenario where there has already been a sacrifice for each participating State and their fishing companies and communities, it is doubted that any “surplus” will be available for trade.

It has to be acknowledged, though, that this logic does not follow from situation where the coastal State has been allocated a share according to criteria different than past performance or historical catches, and particularly if the allocation has been made according to the criterion of geographical distribution of the stock (zonal attachment). That requires, though, that zonal attachment becomes the main criterion for allocation of fishing opportunities regardless of the fishing capacity of the coastal State. This is, as has been pointed out in chapter 5, an option available for RFMOs in the design of their allocation framework, and a practice that can be considered established for straddling stocks¹⁰²⁴ and increasing for highly migratory stocks.¹⁰²⁵

The most important observation, however, is this: once again, equity considerations have remained, for the most part, unaddressed. This section is an attempt to fill that gap but identifying some equity considerations that should be taken into

¹⁰²⁴ See: Hoel and Kvalvik, *supra* note 14.

¹⁰²⁵ See: *supra* note 863 and accompanying text. Indeed, the authors of the discussion paper on allocation issues for the WCPFC tuna resources Report on allocation requested by the WCPFC Secretariat refer to quota trading mostly on the basis that it would allow coastal States to participate in the wealth of the tuna fishery in the Western and Central Pacific Ocean even if they have not yet developed fishing capacity, and until they do so (See: Agnew *et al.*, *supra* note 10, at 50-51).

account in the design of a quota trade system. For this purpose, the following sections address the implications of quota trading in intergenerational and intra-generational equity, respectively.

Quota Trading and Intergenerational Equity

In chapter 4 it was asserted that, in a first approach, allocation should not have implications for the long-term conservation of the fish stocks. Indeed, allocation of national quotas requires that the TAC has already been set, and it is in the setting of the TAC that precautionary and ecosystem considerations have to be taken into account to ensure long-term conservation of the stock. But it was also analyzed how allocation does, nevertheless, create perverse incentives for long-term conservation.

What was said for allocation applies as well to quota trading. Trading of quota takes place only after the TAC is set (and therefore, in theory, long-term conservation of the stock has already been ensured); and even after national allocations are made. Nevertheless, quota trading produces and even exacerbates some undesirable incentives for short-term gains and against long-term conservation of fish stocks. First, if the regime considers the possibility of trading quota, there are more incentives for each State, individually, and for all States, collectively, to increase the initial TAC above scientifically recommended levels and even above their fishing capacity. By doing so, they can benefit from quota trading even though they may not have the capacity to actually engage in fishing activities. In other words, trading quota increases the incentives to have “paper fish”.

Cox acknowledges this perverse effect by stating that “[a]nother potential issue that arises in the use of tradable rights schemes is the potential for rights holders to resist any reductions in the TAC as this will reduce the value of their rights.”¹⁰²⁶ The consequence of this potential issue is, once again, that TAC and allocations would not act as a limit or restriction of fishing capacity, and that long-term conservation would probably be postponed in favour of short-term gains.

There is, in addition, a second perverse effect of quota trading: they allow quotas to be fully caught. This can be viewed, and is actually presented, as a beneficial effect of

¹⁰²⁶ Cox, *supra* note 936, at 40.

quota trade: it ensures the optimum utilization of the fish stock. Indeed, if one State is not efficient to catch its quota for any reason, the quota can be transferred to some other State that has that capacity. Although this is a reasonable objective, it assumes that the TAC is set strictly at scientific recommended levels. And it has already been noted in chapter 4 that there are many incentives for States not to adopt those sound TACs, including, as just described, quota transfers.

One example illustrates this risk. During the discussion on conservation and management measures for South Atlantic swordfish in ICCAT for the 2003-2006 period, a group of States tabled a proposal of a TAC of 15,631 tons for 2003, increasing up to 16,055 tons in 2006.¹⁰²⁷ Another group of States manifested their concern, considering that the scientific advice was that the TAC should not exceed 14,000 tons.¹⁰²⁸ The report of the meeting cites one delegate stating that

the real catches will, without a doubt, be less than 15,000 t since the developing countries were seeking fishing opportunities but the unused portion of TAC would be significant (although the total amount of the autonomous quota was more than 20,000 t) (...) He stressed that the proposal was well in accordance with the SCRS Recommendations.¹⁰²⁹

Other delegates also endorsed this position, reaffirming that “this TAC limit would not be reached, and therefore the (...) concerns were not justified.”¹⁰³⁰ Quota trading, however, may allow that the TAC be reached (unless the stock is already depleted and there is no fish available, a possibility that does not taint the theory with any brighter light).

States seem to be aware of those undesirable incentives. The limitations to quota trade in the Western Atlantic bluefin tuna fishery imposed in ICCAT Recommendation 08-02 probably respond to those concerns. Furthermore, as was described previously, the members of CCSBT stated them explicitly: quota trading should be considered when TAC is based on scientific information and according management procedures, and procedures for national allocations are in place; in over-exploited or seriously threatened

¹⁰²⁷ ICCAT, *Report for biennial period, 2002-03, Part I (2002)*, *supra* note 303, Report of the Meeting of Panel 4 at 314 and Recommendation 02-03 on South Atlantic Swordfish Catch Limits, at 159.

¹⁰²⁸ *Ibid*, para. 6.2.6 at 318.

¹⁰²⁹ *Ibid*, para. 6.2.14 at 319.

¹⁰³⁰ *Ibid*, para. 6.2.15 at 319.

fisheries, unused quotas should not be reallocated through quota trading which would increase catch.¹⁰³¹

Quota Trading and Intra-generational Equity

It has been noted in a previous section that a system of tradable quota can have one of two emphases: a mechanism of flexible management of quotas for extraordinary cases; and a system of access to the fishery. It is this latter aspect that has more acute implications for intra-generational equity, and the following sections are devoted to this mechanism.

A tradable quota system can theoretically be constructed on the basis of initial allocations made through auctions, and subsequent transfers through transactions among States. This system has been suggested by few scholars,¹⁰³² but no RFMO is really considering it. What has been more widely proposed, instead, is to resort to a system of quota trade as a mechanism for new entrants to access the fishery.

Considering that design for analysis, the first aspect that needs to be stressed is that quota trading does not substitute or eliminate the equity concerns that have occupied most of this thesis. Indeed, a system of quota trading does not eliminate, at the very least, the initial allocation. That has been recognized by all authors while analyzing the introduction or enhancement of quota trade schemes in RFMOs.¹⁰³³

On the contrary, it can be expected that conflict over that first allocation will be even more intense. First, the effects of the initial allocation would be permanent, since any modification to an agreed allocation would be based on quota trading rather than re-allocation by agreement. Secondly, and as has been explained in the previous section, the first allocation would have a value of its own (“paper fish”) independent from the fishing

¹⁰³¹ CCSBT, Report of the Eleventh Annual Meeting of the Commission, *supra* note 1010, Appendix 3, Report of the Extended Commission of the Eleventh Annual Meeting of the Commission, 19-22 October 2004, Busan, Republic of Korea, at 10-11.

¹⁰³² See, for example: Crothers and Nelson, as cited by Allen, *supra* note 2, at 5.

¹⁰³³ “[T]he key to the efficacy of trading quotas remains the matter of the initial allocation, upon which all subsequent trades would be based” (Lodge et al., *supra* note 11, at 37). “Tradability does not remove the initial allocation problem, especially if the rights were given away free of charge” (Cox, *supra* note 936, at 39). It is important to highlight, as Cox does, that the analysis may differ if the initial allocation is to be made by auction. However, that possibility has not even been presented to RFMOs. The tradability of quotas is always presented as possibility for quota holders according to the current scheme; and as a mechanism to solve the conflict posed by new entrants to the fishery, but not between charter members or contracting parties of an RFMO.

capacity of the State. In other words, the tradability of national quotas brings them closer to a property right, rather than a mutually agreed limitation on fishing activities. As a consequence, what is distributed in that first allocation would be, if not property right, a quasi-right.

Adopting quota trading as a mechanism to accommodate new entrants to fisheries poses, however, additional equity problems. Two of such problems are: discrimination, and the consequences for developing States.

An allocation regime based on quota trading as the mechanism allowing participation of new entrants to the fisheries would make a distinction between two groups of States: charter members, and new participants. While the first would be allocated the quota according to some criterion or combination of criteria, the second group would pay for access to the resource (whether that payment is money or other advantages given to the quota holder). In words of Lodge *et al.*, this system would involve “(non-coastal State) new members in effect buying their way into the RFMO”.¹⁰³⁴ Is this different treatment discrimination?

The question is legally relevant in light of article 119(3) of LOSC: “States concerned shall ensure that conservation measures and their implementation do not discriminate in form or in fact against the fishermen of any State.” Article 8(4) of UNFSA, in turn, states:

The terms of participation in such organization or arrangement shall not preclude such States from membership or participation; nor shall they be applied in a manner which discriminates against any State or group of States having a real interest in the fisheries concerned.

A first aspect that needs to be addressed is how a mechanism that requires new entrants to “buy their way into the RFMO” is different than a system that requires new entrants to comply with the measures adopted by an RFMO, including measures that eventually may lead to non-access to the fishery. Most authors conclude that there is no discrimination in this latter situation. Burke states that it is non-discriminatory simply to expect adherence to the same regulatory structure as applies to all participants.¹⁰³⁵ Thus,

¹⁰³⁴ Lodge *et al.*, *supra* note 11, at 17.

¹⁰³⁵ Burke, *supra* note 44, at 131. See also: Orrego Vicuña, *supra* note 126, at 70.

[i]f shares are determined on historical grounds, then the problem is averted. The new entrant gets the same share as all other non-participants, which is zero. On the other hand, if the regime is established on the basis of an auction or other means of allowing the purchase of a share, then the new participants may compete for a share in the same basis as any other participant.¹⁰³⁶

The same conclusion is exposed by Orrego Vicuña:

[t]o the extent that the non-discrimination clause is observed, the new entrant will be bound to comply with the obligation so established and could not claim a right to fish separate from the arrangements lawfully made under the Convention.

The two situations, however, are considerably different. While in one case the same rule applies to both groups of States (albeit the result of that regulation may imply that the extent of the rights of each State is different), in the second case it is the access regime itself which is different. Thus, the assumptions of Burke and Orrego Vicuña, namely that new entrants “may compete for a share in the same basis as any other participant” is precisely what is missing. The basis of access is not the same. Does that distinction amount to discrimination according to international fisheries law?

The non-discrimination provision of article 8(4) prohibits discrimination against any State or group of States having a real interest in the fishery. It may be argued, on the basis of article 8(4) of UNFSA, that a lawful distinction can be made between States with real interest in the fishery, and other States. However, caution should be exercised with this interpretation since it presents three problems. The first problem is the non-universal ratification of UNFSA.¹⁰³⁷ The second problem has already been explained in some detail in chapter 3: UNFSA does not define “real interest”, introducing an element of ambiguity to the provision that would make the practical implementation of such a distinction extremely difficult. A third difficulty is that the non-discrimination provision is narrower than the non-discrimination clause of the LOSC, which states that high seas conservation measure and their implementation cannot “discriminate in form or in fact against the fishermen *of any State*”¹⁰³⁸ (and not just States with a real interest). It is hard to find an

¹⁰³⁶ Burke, *ibid.*

¹⁰³⁷ It should be noted, however, that some authors have advanced the interpretation of the provisions of UNFSA having reached the status of customary international law, or as defining an objective regime. See: Rayfuse, as cited by Barnes, *supra* note 110, at 127-135.

¹⁰³⁸ LOSC, article 119(3) [emphaiss added].

interpretation that harmonizes these two provisions, but harmonization is required by article 4 of UNFSA.

The concern on an eventual breach to the obligation of non-discrimination arises with more strength considering the interpretation of discrimination given in a complaint against the Icelandic transferable quota regime that, like in the case in analysis, made a distinction between original quota holders and successive buyers or renters. The complaint was presented in 2007 to the United Nations Human Rights Committee to the International Covenant on Civil and Political Rights,¹⁰³⁹ in application of its Optional Protocol,¹⁰⁴⁰ by two Icelandic fishermen.¹⁰⁴¹

In this situation, the Human Rights Committee considered that the distinction amounted to discrimination.¹⁰⁴² The Committee reasoned that the Icelandic quota-based fisheries regime made a distinction between groups of fishers: the first group receives a quota share for free; the second group has to buy or rent a quota share for the simple

¹⁰³⁹ International Covenant on Civil and Political Rights, 19 December 1966, 999 UNTS 171; 6 ILM 368 (1967) (entered into force 23 March 1976).

¹⁰⁴⁰ Optional Protocol to the International Covenant on Civil and Political Rights, 19 December 1966, UN Doc. A/6316 (1966), 999 UNTS 302 (entered into force 23 March 1976).

¹⁰⁴¹ In 1982, Iceland introduced an individual vessel quota system for several species (demersal fish, shrimp, lobster, shellfish, herring and capelin). The individual quotas were allocated (free of charge) on the basis of the vessels' catch performance in the period encompassing 1 November 1980- 31 October 1983. The regime was originally enacted for one year, but in 1990 it was established on a permanent basis. Under the permanent regime, the quota share of a vessel was transferable wholly or in part. In addition, some restrictions on the size of the quota share that individual and legal persons may own were imposed. The complainants owned a fishing vessel that was issued general fishing permit. However, they were not allocated quota due to lack of operation in the reference period. Nor were they able to purchase or lease a quota, because of their high cost. Their complaint was based on two provisions: a) section 1 of the Icelandic Fisheries Act, which provides that the fishing banks around Iceland are a common property of the Icelandic nation and that allocation of catch entitlement does not endow individual parties with a right of ownership of such entitlements; and b) article 26 of the International Covenant on Civil and Political Rights, which states: "All persons are equal before the law and are entitled without any discrimination to the equal protection of the law. In this respect, the law shall prohibit any discrimination and guarantee to all persons equal and effective protection against discrimination on any ground such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status." The authors claimed that, notwithstanding section 1 of the Icelandic Act, fishing quotas are treated as a personal property of those to whom they were distributed free of charge during the reference period. This implied, they argued, a donation to a privileged group, since the money paid for quotas does not revert to the Icelandic nation but to private parties personally. Other fishermen, on the contrary, must purchase or lease a right to fish from the beneficiaries of the arrangement, which constitutes discrimination.

¹⁰⁴² *Views of the Human Rights Committee under article 5, paragraph 4, of the Optional Protocol to the International Covenant on Civil and Political rights concerning Communication No. 1306/2004*, Ninety-first session, 24 October 2007, CCPR/C/91/D/1306/2004 (Haraldsson and Sveinsson v. Iceland), UN, International Covenant on Civil and Political Rights, *Selected Decisions of the Human Rights Committee under the Optional Protocol*, Vol. 9, Eighty-fifth to ninety-first sessions (October 2005 – October 2007) (New York; Geneva: UN, 2008) 192, online: Office of the United Nations High Commissioner for Human Rights <<http://www2.ohchr.org/english/bodies/hrc/index>>.

reason that they were not owning and operating fishing vessels during the reference period. It concluded that this distinction was based on grounds “equivalent to those of property”. Next, it analyzed if this distinction was legitimate, i.e., if it was based on reasonable and objective criteria. In this regard, it concluded that “the State party has not shown that this particular design and modalities of implementation of the quota system meets the requirement of reasonableness.” They based this conclusion on two pillars: a) the fact that according to section 1 of the Icelandic Act, fishing banks around Iceland are common property of the Icelandic nation; and b) the fact that the distinction, when established as a permanent measure, transformed original rights to use and exploit a public property into individual property.¹⁰⁴³

Although applicable to a national fisheries regime, the interpretation of discrimination may be useful for the analysis of quota trading as access mechanism for new entrants in the high seas. The first of the arguments on which the Committee based its view was the fact that section 1 of the Icelandic Act explicitly states that fishing banks around Iceland are common property of the Icelandic nation. There is no equivalent provision in high seas fisheries; however, it can be concluded that the freedom to fish in the high seas establishes that common property.

The second element of the view of the Committee is that the tradable quota system established on a permanent basis transformed the right of the holder from a right to use a common property to an individual property. Indeed, the benefits of conservation efforts accrue to the quota holder and not the Icelandic society, and are reflected in the price of the quota share. The same would apply in a high seas regime with improved exclusivity where new entrants had quota trading as their only option to access the fishery. Following the views of the Human Right Committee, thus, this distinction in the access mechanism for high seas fishing would entail unlawful discrimination.

¹⁰⁴³ The view of the Committee was not shared by some of its members. Dissenting opinions were filed by Committee members Ms. Elisabeth Palm, Mr. Ivan Shearer, Ms. Iulia Antoanella Motoc, Sir Nigel Rodley, Mr. Yuji Iwasawa, and Ms. Ruth Wedgwood. The dissenting opinions were based in particular on the following grounds: the fisheries regime has proven to improve economic efficiency and sustainability, leading to a gainful utilization of the fish stocks for the benefit of the national economy; there is a need to have a stable and robust system, which would be risked by a change of the fisheries management system; the required deference to the State party’s economic policies drafted carefully through democratic processes; the fact that the quota holders pay a special catch fee for their right to access to fishing areas; the fact that the distinction was not based on ‘property’ but on the economic activity of a person undertaken during a period of time.

There is, however, one argument that may provide some legitimate basis for a distinction. Members of RFMOs make costly investments in form of financial contributions, scientific research, data gathering, and control and motoring efforts. These elements are indispensable for the sound management of the stock, and thus the value of the national quotas. A new entrant, on the contrary, could benefit from those investments without incurring in equivalent costs. It could be argued, then, that the need to buy quota is justified in the financial and non-financial contribution to sound management that the quota holder has made. The different access regime demands from both quota holder and new entrants a financial contribution, albeit that financial contribution is provided in different forms.

Beside the potential of discrimination in quota trading as a mechanism to allow access to fishing by new entrants, there is still another aspect of intra-generational equity that needs to be highlighted. That aspect is the special requirements of developing States. The system assumes that quota trading provides all States with equal opportunities to participate in high seas fishing. It has long being acknowledged, however, that this formal equality does not translate into substantial equality. It is to be presumed that only States with more means, either in terms of financial resources or of other tradable interests, will be able to access high seas fishing. This, as stated by Cox, will only exacerbate the conflicts between developing and developed States.¹⁰⁴⁴

Section 6. Some Concluding Remarks

Quota trading has been presented as a necessary, albeit not sufficient, solution to high seas problems. It is argued that tradability increases the characteristics of property rights in the high seas, which in turn increases the incentives for long-term conservation. It is also proposed as a solution for the problem of new entrant. In addition, it is argued, it provides flexibility to address by-catch and seasonal population variations. With these varied benefits in sight, it can be concluded that a system of quota trading can be designed either as providing flexibility in quota management; or as providing access to high seas fisheries for new entrants.

¹⁰⁴⁴ Cox, *supra* note 936, at 39.

However, several aspects need to be taken into account in the design of a quota trading system. This chapter has highlighted some of them.

The applicability of a right-based management regime to the high seas faces legal and practical challenges that need to be taken into account. Without improving exclusivity in the high seas, quota trading is less attractive or bluntly impracticable. Secondly, the efficiency arguments that support quota trading may face challenges in high seas fisheries, both because of the quota holder (State instead of companies) and because it assumes that efficiency is the only fisheries objective of the participating States. As has been shown in the past, this is far from being a reality.

More importantly for the purposes of this thesis, the emphasis on efficiency arguments has mostly relegated one again the consideration of equity implications of such a measure. This is particularly troublesome considering that quota trading has negative incentives for both conservation (and thus intergenerational equity), and intra-generational equity.

Quota trading creates incentives to maintain a high value to that asset, which is associated with the TAC. Thus, although design to create incentives for long-term conservation, it also creates at least short-term incentives for unsustainable management.

Quota trading as a mechanism to allow accommodation of the interests of new entrants faces particular intra-generational equity problems. Firstly, its compatibility with international law is less than clear. Indeed, there are several arguments that allow concluding that it entails discrimination against States, discrimination that is prohibited in the international law of the sea. In addition, quota trading would leave developing States in a disadvantaged position to participate in high seas fisheries. It is to be expected, therefore, that conflicts between developed and developing States would intensify, rather than ameliorate, with such a system.

It is not surprising, therefore, that RFMOs have been cautious in the implementation of quota trade mechanisms. Progress has been made towards providing flexible mechanisms to quota management that allow making an efficient use of resources in extraordinary circumstances. In some cases, quota trade appears to be used to facilitate negotiation on national allocations. However, quota trading as an access

mechanism for the high seas seems farther away in the horizon of high seas fisheries management.

Chapter 8. Conclusions

TAC and allocations have been widely recognized as best practices with respect to conservation and management measures of high seas fisheries. UNFSA and regional agreements include them as the responsibility or function of the RFMOs. However, while UNFSA and the regional agreements consider substantive guidance on how to adopt a TAC (mainly by application of precautionary and ecosystem approaches), the legal frameworks do not provide equivalent guidance with respect to the allocation of national quotas or effort. This lack of guidance has become one of the main conflicts for high seas fisheries management. The inability to resolve allocation issues in a timely and satisfactory manner has become a threat to the sustainability of fisheries.

This thesis had the purpose of exploring if, under what conditions, and with which shortcomings, a legal concept of equity can provide assistance in the allocation of high seas fishing opportunities. To this end, it has reviewed the historical origins of allocation of quotas, and it has summarized the current global and regional legal frameworks for allocation, as well as the common features of allocation practices. It has reviewed whether intergenerational and intra-generational equity is considered in the international legal framework for high seas fisheries. It has also analyzed what the legal and practical implications of their inclusion in high seas fisheries regime are.

The purpose of this final chapter is not to review each of the key concepts and findings identified throughout the thesis. Rather, it will attempt to provide an answer to the initial question: does the legal concept of equity provide any useful guidance for the allocation of high seas fishing opportunities? For this purpose, the following sections address several related issues drawing upon different sections of this thesis.

Balancing Efficiency and Equity: Losing the Battle?

The first adoption of TAC and allocation of national quotas in the high seas fisheries in the early 1970s, and its rapid acceptance as best management practice, have been guided by economic objectives. Chapter 2 dwelled extensively on the theoretical background and rationale that were key in the promotion of allocation as a conservation and management measure. That background was economy; the rationale to increase the

net economic benefits of the fishing activity by eliminating international competition for a common resource and, consequently, creating the appropriate incentives for States to increase efficiency. Despite the obvious distributional consequences of the measure, equity considerations were raised but not addressed. “[W]ho is to define equity?”¹⁰⁴⁵ was a question left unanswered. The evolution of the allocation framework and the allocation practices of RFMOs demonstrate the struggles to fill that gap.

Almost forty years later, the main approach to address the “common pool” resource problem is, once again, economic efficiency. Chapter 7 looked at one widely accepted suggestion that, so it is claimed, would contribute to alleviate the allocation problem: a system of tradable quotas. According to its proponents, tradable quotas would allow fishing opportunities to be used by those fishers who produce the greatest economic benefit, i.e., the most efficient fishing States.¹⁰⁴⁶ The same rationale underlies another proposal that has been presented in chapter 6: the suggestion for RFMOs to widen the scope of bargaining through side payments or negotiation facilitators. As stated by Munro,

[s]ide payments become truly significant when the management goals of the coastal states sharing the resource differ. (...) when there are differences in management goals, it is invariably the case that one player places a higher value on the fishery than does the other. (...) When side payments are possible, then the optimal policy is one in which the management preferences of that player placing the highest value on the resource should be given full reign.¹⁰⁴⁷

Thus, by allowing side payments, all participants are better off than without side payments and the global return from the fishery, as well as the wealth of each participant, is thereby maximized.¹⁰⁴⁸

These modern proposals have the same vacuum that the original proposal for TAC and allocation had in the 1960s and 1970s: they rely on economics, failing to incorporate equity considerations into the analysis. Therefore, as in the case of allocation of national quotas, they may prove to be incomplete and finally unsatisfactory solutions to address the complicated problem of “who gets what”.

¹⁰⁴⁵ See: *supra* note 319 and accompanying text.

¹⁰⁴⁶ See: *supra* note 960 and accompanying text.

¹⁰⁴⁷ Munro, *supra* note 119, at 14.

¹⁰⁴⁸ *Ibid*, at 12-14.

The experience of high seas fisheries is not unique. The same can be ascertained more broadly with respect to fisheries management. Cochrane has noted that the balance between sustainability, economic efficiency and equity “is yet to be pursued seriously.”¹⁰⁴⁹ With respect to water allocation, it has been ascertained that

(...) the conceptual framework for resolving water disputes on which much of contemporary academic and political analysis has settled is a focus on increased efficiency.¹⁰⁵⁰

This emphasis on economics and efficiency contrasts with the increasing concerns for equity in international environmental law, generated by the scale of the environmental challenges and the necessary interdependence in their solution. Brown Weiss noted that equity has become a central concern.¹⁰⁵¹ This concern can be evidenced in the proliferation of equity principles in main concepts shaping international law and international environmental law: sustainable development, ecosystem approach, precautionary approach, common but differentiated responsibility. It has permeated maritime delimitation, water law, biodiversity conservation, and climate change. Equity in international relations is here to stay.

It is evident that more and better efforts have to be made to introduce equitable considerations into the design and implementation of international regimes, and of high seas fisheries regimes in particular. But efforts, so far, have been scarce: equity has had a stormy road in international fisheries law.

The Stormy Road of Equity

After the initial establishment of TAC and quota allocation as management practice in high seas fisheries regimes, which mostly did not include equity considerations, the RFMOs have struggled to achieve a framework for allocation that is regarded as equitable and transparent by their members and new entrants. This struggle

¹⁰⁴⁹ Kevin L. Cochrane, “Reconciling sustainability, economic efficiency and equity in fisheries: the one that got away?” (2000) 1 *Fish and Fisheries* 3, at 18.

¹⁰⁵⁰ Helen Ingram, John M. Whiteley, and Richard Perry, “The Importance of Equity and the Limits of Efficiency in Water Resources” in John M. Whiteley, Helen Ingram and Richard Perry, *Water, Place and Equity* (Cambridge, Mass.: MIT Press, 2008) 1, at 3

¹⁰⁵¹ See, for example: Edith Brown Weiss, “Environmental equity and international law,” in S. Lin and L. Kurukulasuriya, *UNEP’s New Way Forward: Environmental Law and Sustainable Development* (Nairobi: UNEP, 1995) 7, at 8.

has been marked by a tension between the need to achieve equitable allocations, and the reluctance of States to address equity issues.

This reluctance is reflected in international fisheries instruments addressing high seas fisheries. References to equity, either as intergenerational or intra-generational equity, are remarkably absent in such instruments. Furthermore, explicit references to equity, or equitable allocation, have been consciously avoided on several occasions. This vacuum has led to a necessary analysis on whether equity is even considered as a principle of high seas fisheries management.

With respect to intergenerational equity, it can be confidently argued that, despite the lack of explicit references to the principle or the needs and aspirations of future generations, the principle has entered the international framework. Its “port of entry” is through substantive obligations and guiding principles that have an inter-temporal component: the obligation of conservation; the principle of sustainable use; the precautionary approach; and the ecosystem approach. All these obligations and principles entail the need to ensure the long-term conservation of the stocks and their ecosystem and thus, implicitly if not explicitly, protect the interests of future generations. Furthermore, it can be argued that the principle of intergenerational equity has been strengthened through recent developments that emphasize long-term conservation as a fundamental pillar of fisheries management. Whether this recognition translates into effective implementation is another matter, an issue that has been dealt with extensively in chapter 4.

The acceptance of intra-generational equity in the legal framework for international fisheries appears more doubtful. There is an apparent contradiction between an outright rejection to any mention of equity in international instruments, and the explicit recognition of equity as a guiding principle for allocation in other (mostly regional) fora. This cautious, and even contradictory, approach to equity considerations may be explained by the existence of different interpretations of the concept of equity itself. In particular relation to this thesis, equity – or distributional justice - has been understood with two different emphases: as an act of balancing the interests, rights and relevant circumstances of a particular situation; and as a requirement for redistribution of wealth. It is safe to say that there is no agreement on the implementation of this latter

meaning of equity in the high seas fisheries regime. The former meaning of equity, however, appears to be generally accepted by States, practitioners and academics.

On this basis, it can be concluded, therefore, that equity understood as a principle that seeks to balance the different rights, interests, and relevant circumstances of the particular situation, can be considered a guiding principle for the allocation of high seas fisheries opportunities.

Equity: a Useful Concept?

Accepting that equity can be considered a guiding principle for the allocation of high seas fishing opportunities, it must be concluded that it acts as autonomous equity. Indeed, it cannot act as corrective of the harshness of the applicable legal rule precisely because the legal framework does not contain such a rule. What does that mean for allocation decisions? What is the guidance that autonomous equity provides for the decision-making process?

Many authors would answer: nothing. Equity has been considered a content-free concept. Judge Rosalyn Higgins asserted: “I don’t find justice either a useful decision-making tool or a recognizable objective for international law.”¹⁰⁵² Lauterpacht, as well, concluded that equity and equitable principles were elements in a legal decision which had no objectively identifiable normative content.¹⁰⁵³ Ian Brownlie argued that

[w]hatever the particular and interstitial significance of equity in the law of nations, as a general reservoir of ideas and solutions for sophisticated problems it offers little but disappointment.¹⁰⁵⁴

As was noted in the introduction to this thesis, this is also the opinion of Oda referring particularly to high seas fisheries. He noted, in this respect, that “[e]quity comprises no objective legal criterion and varies in each circumstance.”¹⁰⁵⁵ It is, thus, because he considers equity a concept free of any normative content that he denied a role for law in the allocation problem.

¹⁰⁵² Judge Rosalyn Higgins, as cited by Brunnée, *supra* note 592, at 316.

¹⁰⁵³ E. Lauterpacht, as cited by Jennings, *supra* note 582, at 37.

¹⁰⁵⁴ Ian Brownlie, as cited by Janis, *supra* note 594, at 23.

¹⁰⁵⁵ Oda, *supra* note 18.

But this view of equity in international law has been contested. Franck has noted that “[f]ar from being contentless, equity is developing into an important redeeming aspect of the international legal system.”¹⁰⁵⁶

An important contribution to this equity with normative content has been the jurisprudence in the field of maritime delimitation law. Through several decisions that deal explicitly with equity considerations, the ICJ defined the elements of a concept of equity that is not *ex aequo et bono* but an equity within the law. Those elements, which represent higher levels of normativity of the concept of equity, are: equitable principles, relevant circumstances, and equitable methods. Equity within the law, or controlled equity, does have substantive and procedural content that limits the discretion of the decision-maker.

The developments in international fisheries law, as the analysis of this thesis shows, have focused on the identification of categories of relevant circumstances that need to be taken into account in the process of balancing the different interests and rights at stake. By so doing, the international community has neglected the development of equitable principles, which give purpose and direction to those relevant circumstances and allows balancing and weighting them. It also has neglected the development of equitable methods or procedures, which bridge the abstractness of equitable principles and the particularities of the relevant circumstances. It is the equitable method or procedure which allows an objective and systematic implementation of the equitable principles to the particular circumstances of the case. The development and definition of those three elements allow applying a concept of equity that is far from pure discretion.

With some cynicism, it can be argued that this construction of a normative content of equity implies precisely that RFMOs have to adopt the tough decisions that they have been unable to make. In other words, if such a normative content of equity needs to be constructed, how is that better than the situation that exists today? What is the contribution of equity to the allocation problem?

The contributions are basically three. Firstly, the jurisprudence in maritime delimitation law does not answer the question “what is equitable?”, but it does answer the question “what needs to be done in order to achieve an equitable framework that has a

¹⁰⁵⁶ Franck, *supra* note 8, at 79.

substantive normative content?” Showing the path towards a possible solution is already part of the solution.

Secondly, it demystifies that the solution to allocation problems have to be found in RFMOs, by RFMOs alone. Although it remains true that equity varies in each circumstance, it can be acknowledged that at least some of its normative elements – namely equitable principles – are general and abstract in character. This acknowledgment has a clear consequence: it is unquestionable that RFMOs’ role is central and unavoidable; but there is also room for other fora to participate in the debate. In particular, it is proposed that scholars can make a contribution to the process, for reasons that will be highlighted further below.

Related to this latter point, there is a third contribution of equity to the “allocation problem”. Allocation can be viewed not subject to bargaining and bargaining alone, but *also* subject to certain equitable principles. This opens the door for analysis of the developments of equity as a legal standard for the fair distribution of benefits or burdens, a standard that is evolving in international law, international environmental law, and international law of sustainable development.

This thesis has attempted part of that analysis in chapter 4 and 5. With respect to intergenerational equity, it reviewed the possible avenues to incorporate explicitly the needs of future generations in the TAC and allocation regime. With respect to intra-generational equity, the evolving concept of equitable delimitation and equitable use were analyzed to identify principles that have underlined their progress in international law: the respect to sovereignty and sovereign rights; the protection of historical uses, its limitations and conditions; the timid but increasing role of socio-economic factors in need-based allocation schemes; the principle of substantive equality operationalized with the consideration of special requirements of developing States and importantly, the principle of CBDR. All these shed some new light in addressing the distributional conflicts of high seas fisheries, as extensively addressed in chapter 5.

The process of translating those influences into concrete and substantive frameworks in high seas fisheries is certainly not an easy one, and it definitely requires political will. But the approach to the allocation issue – from pure politics to a principled

and controlled mechanism to arrive at acceptable distributional results – can change the paradigm in addressing the problem.

Allocation: Pure Policy?

The introduction of the thesis highlighted that allocation of fishing opportunities is widely considered to be a political issue.¹⁰⁵⁷ Agreements are the result of bargaining without any significant guidance by legal norms. Against that background, this thesis has explored the guidance that could be provided by one concept that is part of international law: equity. This analysis does not provide sufficient basis to refute the assertion that allocation of fishing opportunities is a political issue, but it does allow qualifying it.

Allocation of high seas fishing opportunities is in urgent need of guidance in the form of a substantive structure or framework that allows equitable and transparent allocation of fishing opportunities. This need is manifested in the struggles of RFMOs to develop such a framework. Equity is invoked to play a prominent role in it.

Equity is not a content-free concept, but a concept that is in evolution in international law. Brown Weiss asserted in 1995 that “there is a search, though unsystematic, for a new definition [of equity].”¹⁰⁵⁸ She added that “[p]articularly as our international system becomes more complex, we will need to consider carefully how to reconcile competing equitable demands and move toward normative frameworks acceptable to all members of the international community.”¹⁰⁵⁹

What is said in respect to international environmental law in general, is also applicable to high seas fisheries law: there is currently a search for a definition of equity and equitable allocation of high seas fishing opportunities. Equity as a legal standard for high seas fishing allocation, therefore, is law in the formation stage. As such, it is undoubtedly political. But it is also legal, in that it requires identifying, defining and refining substantive and procedural principles and criteria that lead to a crystallization of equity in the particular and complex field of high seas fisheries management. This process should be forged not in isolation but grounded in current developments in

¹⁰⁵⁷ See: *supra* note 18 and accompanying text; *supra* note 574 and accompanying text.

¹⁰⁵⁸ Brown Weiss, *supra* note 1051, p. 9.

¹⁰⁵⁹ *Ibid*, p. 19.

international law. It is for these reasons that it deserves more legal attention, and more academic attention, than it has yet received.

There is yet a second reason why allocation of high seas fishing opportunities has to be considered a political issue. Even if a higher level of normativity is achieved, discretion would not be absolutely eliminated from the allocation decisions, and politics are bound to enter in this realm. But it is a fairly different to say that there is room for politics, than to say that it is just and strictly a political decision.

Appendix. States Ratification or Accession to LOSC, UNFSA, and RFMOs Conventions

	State	LOSC	UNFSA	IATTC	ICCAT	IOTC	CCSBT	WCPFC	NAFO	NEAFC	SEAFO	CCAMLR
1	Albania											
2	Algerie											
3	Angola											
4	Argentina											
5	Australia											
6	Barbados											
7	Belgium											
8	Belize											
9	Brazil											
10	Canada											
11	Cape Verde											
12	Chile											
13	China											
14	Colombia											
15	Comoros											
16	Cook Islands											
17	Costa Rica											
18	Côte D'Ivoire											
19	Croatia											

[illegible]

[illegible]

[illegible]

	State	LOSC	UNFSA	IATTC	ICCAT	IOTC	CCSBT	WCPFC	NAFO	NEAFC	SEAFO	CCAMLR
87	Turkey											
88	Tuvalu											
89	Ukraine											
90	U.K.											
91	United Republic of Tanzania											
92	United States of America											
93	Uruguay											
94	Vanuatu											
95	Venezuela (Bolivarian Republic of)											

Notes

- 1) The RFMOs considered were: IATTC, ICCAT, IOTC, CCSBT, WCPFC, NAFO, NEAFC, SEAFO and CCAMLR.
- 2) The table does not consider States that participate as cooperating non-parties to RFMOs.
- 3) The table does not consider the fishing entity of Chinese Taipei.
- 4) The table does consider members of the EU that participate in RFMOs with respect to their overseas territories, as well as in CCAMLR.

References cited

International Conventions and Agreements

Agreement for the Establishment of the Indian Ocean Tuna Commission, 25 November 1993, 1927 U.N.T.S. 329 (entered into force 27 March 1996).

Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, approved by the 36th Conference of FAO held in Rome, 18-23 November 2009, online: FAO <<http://www.fao.org/fishery/en>> (not in force).

Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels in the High Seas, November 24, 1993, adopted by the FAO Conference at its 27th Session, 33 ILM 968 (1994), 2004 ATS 26 (entered into force 24 April 2003).

Convention on Biological Diversity, 5 June 1992, 1760 UNTS 79; 31 ILM 818 (1992) (entered into force 20 December 1993).

Convention on the Conservation of Antarctic Marine Living Resources, 20 May 1980, 1329 UNTS 48; 19 ILM 841 (1980) (entered into force 7 April 1982).

Convention on the Conservation and Management of Fishery Resources in the South East Atlantic Ocean, 20 April 2001, 41 ILM 257 (2002) (entered into force 13 April 2003).

Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, adopted at Auckland, November 14, 2009, online: South Pacific Regional Fisheries Management Organization <<http://www.southpacificrfmo.org>> (not in force).

Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, 5 September 2000, 40 ILM 278 (2001) (entered into force 19 June 2004).

Convention for the Conservation of Southern Bluefin Tuna, 10 May 1993, 1819 UNTS 360; 1994 ATS No. 16 (entered into force 20 May 1994).

Convention on the Continental Shelf, 29 April 1958, 15 UST 471; 499 UNTS 311 (entered into force 10 June 1964).

Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, 17 June 1994, 1954 UNTS 3; 33 ILM 1328 (1994) (entered into force 26 December 1996).

Convention for the Establishment of an Inter-American Tropical Tuna Commission, United States of America and Republic of Costa Rica, 31 May 1949, TIAS 2044, 1 UST 230, 80 UNTS 3 (entered into force 3 March 1950), modified by the *Convention for the Strengthening of the Inter-American Tropical Tuna Commission established by the 1949 Convention between the United States of America and the Republic of Costa Rica*, 27 June 2003 (entry into force 27 August 2010).

Convention on Fishing and Conservation of Living Resources of the High Seas, 29 April 1958, 17 UST 138; 559 UNTS 285 (entered into force 20 March 1966).

Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, 24 October 1978, 1135 UNTS 369 (entered into force 1 January 1979).

Convention on Future Multilateral Co-operation in North-East Atlantic Fisheries, 18 November 1980, 1285 UNTS 129; 1981 OJ (L 227) 21 (entered into force 17 March 1982).

Convention of the International Communication Union, 22 December 1992, ATS (1994) 28; BTS 24 (1996) (entered into force 1 July 1994).

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), 3 March 1973, 993 UNTS 243 (entered into force 1 July 1975).

Convention on the Law of the Non-Navigational Uses of International Watercourses, 21 May 1997, 36 ILM 700 (1997); UN Doc A/RES/51/229 (1997) (not in force).

Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 17 March 1992, 1936 UNTS 269; 31 ILM 1312 (1992) (entered into force 6 October 1996).

Convention for the Protection of the World Cultural and Natural Heritage, 16 November 1972, 1037 UNTS 151; 27 UST 37; 11 ILM 1358 (1972) (entered into force 15 December 1975).

Convention on the Transboundary Effects of Industrial Accidents, 18 March 1992, OJL 326, EC Council Decision 98/685/EC (entered into force 19 April 2000).

Convention between the United States, Great Britain, Russia and Japan for the Preservation and Protection of Fur Seals (7 July 1911) Treaty Series 564 (entered into force 15 December 1911).

International Convention for the Conservation of Atlantic Tunas, 14 May 1966, 20 UST 2887; 673 UNTS 63 (entered into force 21 March 1969), amended by the *Protocol of Paris to Amend the International Convention for the Conservation of Atlantic Tunas*, 10 July 1984 (entered into force 14 December 1997), and the *Madrid Protocol to Amend Paragraph 2 of Article X of the International Convention for the Conservation of Atlantic Tunas*, 5 June 1992 (entered into force 10 March 2005).

International Convention for the Northwest Atlantic Fisheries, 8 February 1949, 157 UNTS 158; 1 UST 477 (entered into force 3 July 1950).

International Convention for the Regulation of Whaling, 2 December 1946, 161 UNTS 72 (entered into force 10 November 1948).

International Covenant on Civil and Political Rights, 19 December 1966, 999 UNTS 171; 6 ILM 368 (1967) (entered into force 23 March 1976).

Kyoto Protocol to the United Nations Framework Convention on Climate Change, 10 December 1997, 37 ILM 22 (1998) (entered into force February 16, 2005).

Montreal Protocol on Substances That Deplete the Ozone Layer, 16 September 1987, 26 ILM 1550 (1987) (entered into force January 1, 1989).

North-East Atlantic Fisheries Convention, 24 January 1959, 486 UNTS 157 (entered into force 27 June 1963).

Optional Protocol to the International Covenant on Civil and Political Rights, 19 December 1966, UN Doc. A/6316 (1966), 999 UNTS 302 (entered into force 23 March 1976).

United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 4 August 1995, 34 ILM 1542 (1995); 2167 UNTS 88 (entered into force 11 December 2001).

United Nations Convention on the Law of the Sea, 10 December 1982, 1833 UNTS 3; 21 ILM 1261 (1982) (entered into force November 16, 2004).

United Nations Framework Convention on Climate Change, May 9 1992, 31 ILM 849 (1992) (entered into force 21 March 1994).

Other International Instruments

Conference to the Parties to the Convention on Biological Diversity. *Malawi Principles for Ecosystem Approach*, adopted at the Fifth Ordinary Meeting of the Conference of the Parties (COP) to the CBD, held in Nairobi, Kenya, 15 - 26 May 2000, CBD COP 5 Decision V/6, Section B, online: CBD <<http://www.cbd.int>>.

FAO. *Declaration on Responsible Fisheries*, adopted by the International Conference on Responsible Fishing held in Cancun, Mexico, 6-8 May 1992, Document COFI/93/Inf, online: FAO <<http://www.fao.org/documents>>.

- _____. *Rome Declaration on Illegal, Unreported and Unregulated Fishing*, adopted by the FAO Ministerial Meeting on Fisheries, Rome, 12 March 2005, online: FAO <<http://www.fao.org>>.
 - _____. *Rome Consensus on World Fisheries*, adopted by the FAO Ministerial Conference on Fisheries, Rome, 14-15 March 1995, Non-serial publications AC441/E, online: FAO <<http://www.fao.org/documents>>.
 - _____. *Code of Conduct for Responsible Fisheries*, 31 October 1995, FAO Doc. 95/20/Rev/1; UN Sales No. E98.V.11 (1998); 1995 WTS 3, online: FAO <<http://www.fao.org/documents>>.
 - _____. *Kyoto Declaration and Plan of Action on the Sustainable Contribution of Fisheries to Food Security*, adopted by the International Conference on the Sustainable Contribution of Fisheries to Food Security, hosted by the Government of Japan in cooperation with FAO at Kyoto, 4 to 9 December 1995, online: FAO <<http://www.fao.org/documents>>.
 - _____. *International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*, adopted by FAO's Committee on Fisheries (COFI) on 2 March 2001 and endorsed by the FAO Council on 23 June 2001, online: FAO <<http://www.fao.org/fishery/en>>.
 - _____. *Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem*, adopted by the FAO Conference in its Thirty-first session, Rome, 2-13 November 2001, online: FAO <<http://www.fao.org>>.
- ILA. *Helsinki Rules on the Uses of the Waters of International Rivers*, International Law Association, Report of the 52nd Conference 484 (1967).
- _____. *New Delhi Declaration of Principles of International Law Relating to Sustainable Development*, adopted by the 70th Conference of the International Law Association, held in New Delhi, India, 2-6 April 2002, included in (2002) 2 International Environmental Agreements: Politics, Law and Economics 211(ILA New Delhi Declaration).
 - _____. *Berlin Rules on Water Resources*, International Law Association, Report of the 71st Conference 3 (2004); 71 ILA 337, 385 (2004).
 - _____. First Report of the International Committee on International Law on Sustainable Development, Berlin Conference 2004, online: ILA <<http://www.ila-hq.org>>.
- ILC. *Draft articles on the Law of Transboundary Aquifers*, text adopted by the International Law Commission at its sixtieth session, in 2008, and submitted to the General Assembly as a part of the Commission's report covering the work of that session. The report, which also contains commentaries on the draft articles, appears in *Official Records of the General Assembly, Sixty-third Session, Supplement No. 10* (A/63/10).

IUCN. *10 Principles for High Seas Governance*, October 2008, online: IUCN <www.iucn.org>.

Report of the Conference Governance of High Seas Fisheries Resources and the U.N. Fish Agreement: Moving From Words to Actions, 1 June 2005, at 27, online: Fisheries and Oceans Canada <www.dfo-mpo.gc.ca>.

St. John's Ministerial Declaration, adopted by the Round Table of Fisheries Ministers meeting in St. John's, Newfoundland, Canada, on 2 May 2005, online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca/fgc-cgp/index_e.htm>.

UN. *Declaration on Human Environment*, 16 June 1972, U.N. Doc. A/Conf.48/14/Rev. 1(1973); 11 ILM 1416 (1972).

_____. *World Charter for Nature*, adopted by the United Nations General Assembly at its 48th plenary meeting on 28 October 1982, A/RES/37/51 (1982), U.N. GAOR, 37th Sess., Supp. No. 51, at 17, 22 ILM 455 (1983).

_____. *Millennium Declaration*, A/RES/55/2, adopted by the U.N. General Assembly at its 55th Plenary Meeting on 8 September 2000, online: U.N. <<http://www.un.org/millennium>>.

_____. *Report of the Review Conference on the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, prepared by the President of the Conference, New York, 22-26 May 2006, A/CONF.210/2006/15, online: DOALOS <<http://www.un.org/Depts/los/index.htm>>.

_____. *Report on the Work of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea at its Sixth Meeting*, Letter dated 7 July 2005 from the Co-Chairpersons of the Consultative Process addressed to the President of the General Assembly, A/60/99, online: DOALOS <<http://www.un.org/Depts/los/index>>.

_____. *Report of the Fourth Informal Consultations of States Parties to the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, New York, 31 May – 3 June 2005, ICSP4/UNFSA/REP/INF.1, 18 July 2005, online: DOALOS <<http://www.un.org/Depts/los/index.htm>>.

_____. *Report of the Fifth Round of Informal Consultations of States Parties to the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, New York, 20 to 24 March 2006, ICSP5/UNFSA/REP/INF.1, 26 April 2006, online: DOALOS <<http://www.un.org/Depts/los/index.htm>>.

- _____. *Report of the Sixth Round of the Informal Consultation of State Parties to the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, New York, 23-24 April 2007, ICSP6/UNFSA/REP/INF.1, 29 May 2007, online: DOALOS <<http://www.un.org/Depts/los/index.htm>>.
- UNCED. *Johannesburg Declaration on Sustainable Development adopted by the 2002 World Summit on Sustainable Development*, online: UN Department of Economic and Social Affairs, Division for Sustainable Development <<http://www.un.org/esa/dsd/index.shtml>>.
- UNCED. *Johannesburg Plan of Implementation adopted by the 2002 World Summit on Sustainable Development*, online: UN Department of Economic and Social Affairs, Division for Sustainable Development <<http://www.un.org/esa/dsd/index.shtml>>.
- UNCED. *Johannesburg Principles on the Role of Law and Sustainable Development*, adopted at the Global Judges Symposium held in Johannesburg, South Africa, on 18-20 August 2002, online: UNEP <<http://www.unep.org>>.
- UNEP. *Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Shared Resources, adopted by the United Nations Environmental Program (UNEP) Government Council*, 17 ILM 1094 (1978).
- UNGA. *Resolution 54/33 on Results of the review by the Commission on Sustainable Development of the sectoral theme of "Oceans and seas": international coordination and cooperation*, A/RES/54/33, 18 January 2000, online DOALOS <<http://www.un.org/Depts/los/index>>.
- _____. *Resolution 56/13 on the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, A/RES/56/13, adopted by the United Nations General Assembly during its Fifty-sixth Session, 13 December 2001, online: DOALOS <www.un.org/Depts/los/index.htm>.
- _____. *Resolution 59/25 on Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments*, A/RES/59/25, online: DOALOS <<http://www.un.org/Depts/los/index.htm>>.

- _____. *Resolution 60/31 on Sustainable Fisheries, including through the 1995 Agreement for the UNGA, Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments*, A/RES/60/31, adopted by the United Nations General Assembly during its Sixtieth Session, 10 March 2006, online: DOALOS <www.un.org/Depts/los>.
- _____. *Resolution 61/105 on Sustainable Fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments*, A/RES/60/31, adopted by the United Nations General Assembly during its Sixty First Session, 6 March 2007, online: DOALOS <www.un.org/Depts/los>.
- _____. *Resolution 64/72, Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments*, A/RES/64/72, adopted by the United Nations General Assembly during its Sixty-Fourth Session, 19 March 2010, online: DOALOS <www.un.org/Depts/los/index.htm>.

International Cases

- North Sea Continental Shelf cases (Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands)*, [1969] I.C.J. Rep. 3.
- Nuclear Tests (Australia v. France)*, [1974] I.C.J. Rep. 253.
- Nuclear Tests (New Zealand v. France)*, [1974] I.C.J. Rep. 457.
- Fisheries Jurisdiction (Federal Republic of Germany v. Iceland)*, Merits, [1974] I.C.J. Rep. 175.
- Fisheries Jurisdiction Case (United Kingdom v. Iceland)*, Merits, [1974] I.C.J. Rep. 3.
- Continental Shelf (Tunisia v. Libyan Arab Jamahiriya)*, [1982] I. C.J. Rep. 18.
- Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada v. United States of America)*, [1984] I.C.J. Rep. 246.
- Continental Shelf (Libyan Arab Jarnahiriya v. Malta)*, [1985] I. C.J. Rep. 13.

Request for an Examination of the situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests Case (New Zealand v. France), [1974] I.C.J. Rep. 288.

Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion [1996] I.C.J. Rep. 226.

Gabcikovo-Nagymaros Project (Hungary v. Slovakia), [1997] I.C.J. Rep. 7.

Case Concerning Maritime Delimitation in the Area between Greenland and Jan Mayen (Denmark v. Norway), [1993] I.C.J. Rep. 38.

United States Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 by Malaysia (2001), WTO Doc. WT/DS58/RW (Panel Report), online: WTO <http://www.wto.org/english/tratop_e/dispu_e/dispu_e.htm>.

Bering Sea Tribunal of Arbitration, Proceedings of the Tribunal of Arbitration Convened at Paris under the Treaty between the United States of America and Great Britain, concluded at Washington for the determination of questions between the two governments concerning the jurisdictional rights of the United States in the waters of Bering Sea (Washington: Government Printing Office, 1895).

Request for the prescription of provisional measures pending the constitution of an Arbitral Tribunal in the dispute concerning Southern Bluefin Tuna (New Zealand v. Japan; Australia v. Japan) ITLOS Order of 27 August 1999, 38 ILM 1624 (1999).

Southern Bluefin Tuna Case between Australia and Japan and between New Zealand and Japan, Award on Jurisdiction and Admissibility (2000), 39 ILM 1359 (2000) (Arbitral Tribunal constituted under Annex VII of the United Nations Law of the Sea Convention), (Arbitrators: Judge Stephen M. Schwebel, H.E. Judge Florentino Feliciano, Rt. Hon. Justice Sir Kenneth Keith, KBE, H.E. Judge Per Tresselt, Professor Chusei Yamada).

Case concerning the Conservation and Sustainable Exploitation of Swordfish Stocks in the South-Eastern Pacific Ocean (Chile v. European Union) submitted to a Special Chamber of the International Tribunal for the Law of the Sea, case No. 7, online: International Tribunal for the Law of the Sea (ITLOS) <http://www.itlos.org/start2_en.html>.

Views of the Human Rights Committee under article 5, paragraph 4, of the Optional Protocol to the International Covenant on Civil and Political rights concerning Communication No. 1306/2004, Ninety-first session, 24 October 2007, CCPR/C/91/D/1306/2004 (Haraldsson and Sveinsson v. Iceland), UN, International Covenant on Civil and Political Rights, Selected Decisions of the Human Rights Committee under the Optional Protocol, Vol. 9, Eighty-fifth to ninety-first sessions (October 2005 – October 2007) (New York; Geneva: UN, 2008) 192, online: Office of the United Nations High Commissioner for Human Rights <<http://www2.ohchr.org/english/bodies/hrc/index>>.

Secondary Material: Monographs

- Alexander, Lewis M. (ed.). *International Rules and Organization for the Sea, Proceedings of the Third Annual Conference of the Law of the Sea Institute, June 24 – June 27, 1968, University of Rhode Island, Kingston, Rhode Island* (Kingston, R. I.: University of Rhode Island, 1969).
- Allen, Robin. *International Management of Tuna Fisheries: Arrangements, Challenges and a Way Forward*, FAO Fisheries and Aquaculture Technical Paper Nr. 536 (Rome: FAO, 2010), online: FAO <<http://www.fao.org/documents>>.
- Aristotle. *Nicomachean Ethics*, trans. by Sir David Ross (London; Toronto: Oxford University Press, 1954).
- Ásgeirsdóttir, Áslaug. *Who Gets What?: Domestic Influences on International Negotiations Allocating Shared Resources* (New York: State University of New York, 2008).
- Birnie, Patricia, Boyle, Alan, and Redgwell, Catherine. *International Law and the Environment*, 3d ed., (Oxford: Oxford University Press, 1999).
- Brown Weiss, Edith. *In Fairness to Future Generations: International law Common Patrimony and Intergenerational Equity* (Dobbs Ferry, NY; Transnational Publishers, Tokyo, Japan: United Nations University, 1989).
- Brownlie, Ian. *The Rule of Law in International Affairs: International Law at the Fiftieth Anniversary of the United Nations* (The Hague; Boston: Martinus Nijhoff Publishers, 1998).
- Brundtland, G. (ed.), *Our common future: The World Commission on Environment and Development* (Oxford; New York: Oxford University Press, 1987).
- Burke, William T. *The New International Law of Fisheries: UNCLOS 1982 and Beyond* (Oxford: Clarendon Press; New York: Oxford University Press, 1994).
- Chepel, L. I. *Northwest Atlantic: Fisheries, Science, Regulations XX Century* (Dartmouth, NS: NAFO, 2002).
- Christy, Francis T., Jr., and Scott, Anthony. *The Common Wealth In Ocean Fisheries: Some Problems of Growth and Economic Allocation* (Baltimore: Published for Resources for the Future by The Johns Hopkins Press, 1965).
- Churchill, R. R., and Lowe, A. V. *The Law of the Sea*, 3d ed. (Manchester: Manchester University Press; Yonkers, NY: Juris Publ., 1999).
- Cox, Anthony. *Quota Allocation in International Fisheries*, OECD Food, Agriculture and Fisheries Working Papers, No. 22, (OECD, 2009), online: OECD <<http://www.oecd.org>>.

FAO. *Economic Effects of Fishery Regulation* (Rome: FAO, 1962).

_____. *A Note on Economic Aspects of Fishery Management*, FAO Fisheries Circular Nr. 27 (Rome: FAO, 1966).

_____. *Report of the Technical Consultation on High Seas Fishing*, Rome, 7-15 September 1992, FAO Fisheries Report No. 484 (Rome: FAO 1993).

_____. *Fisheries Management: Technical Guidelines or Responsible Fisheries Nr. 4* (Rome: FAO, 1997).

_____. *Report of the Meeting of FAO and non-FAO Regional Fishery Bodies or Arrangements*, Rome, 11-12 February 1999, FAO Fisheries Report No. 597, FIPL/R597 (Rome: FAO, 1999).

_____. *The Ecosystem Approach to Fisheries*, Technical Guidelines for Responsible Fisheries No. 4 Suppl.2 (Rome: FAO, 2003).

_____. *Report of the Norway-FAO Expert Consultation on the Management of Shared Fish Stocks, Bergen, Norway, 7-10 October 2002*, FAO Fisheries Report Nr. 695 (Rome: FAO, 2003).

_____. *Papers presented at the Norway-FAO Expert Consultation on the Management of Shared Fish Stocks, Bergen, Norway, 7-10 October 2002*, FAO Fisheries Report Nr. 695Suppl. (Rome: FAO, 2003).

_____. *The state of world fisheries and aquaculture 2008* (Rome: FAO, 2009), online: FAO <<http://www.fao.org/fishery/en>>.

_____. *Report of the Expert Consultation on Flag State Performance*, 23- 26 June 2009, Rome, FAO Fisheries and Aquaculture Report No. 918 (Rome: FAO, 2009).

Franck, Thomas M. *Fairness in International Law and Institutions* (Oxford: Clarendon Press, 1995).

French, Duncan. *International law and policy of sustainable development* (Manchester: Manchester University Press; New York: Juris, 2005).

Garcia, S.M., Zerbi, A., Aliaume, C., T. Do Chi, and Lasserre, G. *The ecosystem approach to fisheries: Issues, terminology, principles, institutional foundations, implementation and outlook*, FAO Fisheries Technical Paper No. 443 (Rome: FAO 2003).

Gold, Edgar, Chircop, Aldo, and Kindred, Hugh. *Maritime Law* (Toronto, ON: Irwin Law, 2003).

- Grafton, R. Quentin, *et al.* *The Economics of Allocation in Tuna Regional Fisheries Management Organizations* (RFMOs, Australian National University, Economics and Environment Network Working Paper EEN0612, 14 December 2006, online: Australian National University, Economic and Environment Network <<http://een.anu.edu.au>>).
- High Seas Task Force, *Closing the Net: Stopping illegal fishing on the high seas*, Governments of Australia, Canada, Chile, Namibia, New Zealand, and the United Kingdom, WWF, IUCN and the Earth Institute at Columbia University (Bellegarde, France: Sadag SA, 2006).
- Janis, Mark W. *An Introduction to International Law*, 4th ed. (New York: Aspen Publishers, c2003).
- Kaya, Ibrahim. *Equitable Utilization: The Law of the Non-Navigational Uses of International Watercourses* (Aldershot, England; Burlington, VT: Ashgate, 2003).
- Koers, Albert W. *International Regulation of Marine Fisheries: A Study of Regional Fisheries Organizations* (West Byfleet: Fishing News, c. 1973).
- Kolb, Robert. *Case Law on Equitable Maritime Delimitation: Digest and Commentaries*, transl. by Alan Perry (The Hague; London: Martinus Nijhoff, 2003).
- Lévy, Jean-Pierre, and Shram, Gunnar G. (compiled and introduced), *United Nations Conference on Straddling Fish Stocks and Highly Migratory Stocks: Selected Documents* (The Hague: Kluwer Law, 1996).
- Lodge, Michael W., Anderson, David, Løbach, Terje, Munro, Gordon, Sainsbury, Keith, and Willock, Anna. *Recommended Best Practices for Regional Fisheries Management Organizations: Report of an independent panel to develop a model for improved governance by Regional Fisheries Management Organizations* (London: The Royal Institute of International Affairs, 2007), online Chatham House <<http://www.chathamhouse.org.uk/publications/papers>>.
- Maguire, Jean-Jacques, Sissenwine, Michael, Csirke, Jorge, Grainger, Richard, and Garcia, Serge. *The state of world highly migratory, straddling and other high seas fishery resources and associated species*, FAO Fisheries Technical Paper No. 495 (Rome: FAO, 2006).
- McCaffrey, Stephen C. *The Law of International Watercourses*, 2d ed., (Oxford; New York: Oxford University Press, 2007).
- Mooney-Seus, Marjorie L., and Rosenberg, Andrew A. *Regional Fisheries Management Organizations: Progress in Adopting the Precautionary Approach and Ecosystem-Based Management, Recommended Best Practices for Regional Fisheries Management Organizations*, Technical Study Nr. 1 (London: The Royal Institute of International Affairs, 2007), online Chatham House <<http://www.chathamhouse.org.uk/publications/papers>>.

- Munro, R.D., and Lammers, J.G. (eds.). *Environmental Protection and Sustainable Development Legal Principles and Recommendations* (London: Graham & Trotman, 1986).
- Munro, Gordon, Van Houtte, Annick, and Willmann, Rolf. *The conservation and management of shared fish stocks: legal and economic aspects*, FAO Fisheries Technical Paper No. 465 (Rome: FAO 2004).
- OECD. *Strengthening Regional Fisheries Management Organizations* (OECD, 2009).
- Orrego Vicuña, Francisco. *The Changing International Law of High Seas Fisheries* (Cambridge, U.K.; New York: Cambridge University Press, 1999).
- Owen, Daniel. *Practice of RFMOs Regarding Non-members, Recommended Best Practices for Regional Fisheries Management Organizations*, Technical Study No. 2 (London: The Royal Institute of International Affairs, 2007), online Chatham House <<http://www.chathamhouse.org.uk/publications/papers>>.
- Rayfuse, Rosemary. *Non-Flag State Enforcement in High Seas Fisheries* (Leiden; Boston: M. Nijhoff, 2004).
- Redgwell, Catherine. *International trusts and environmental protection* (Yonkers, NY: Juris; Manchester, UK: Manchester University Press, 1999).
- Rieu-Clarke, Alistair. *International Law and Sustainable Development: Lessons from the Law of International Watercourses* (London: IWA Publishing, 2005).
- Sands, Philippe. *Principles of International Environmental Law*, 2d ed. (Cambridge: Cambridge University Press, 2003).
- Schachter, Oscar. *Sharing the World's Resources* (New York: Columbia University Press, 1977).
- _____. *International Law in Theory and Practice* (Dordrecht, the Netherlands; Boston: Martinus Nijhoff Publishers, 1991).
- Schrijver, Nico. *The Evolution of Sustainable Development in International Law: Inception, Meaning and Status* (Leiden; Boston: Martinus Nijhoff Publishers, 2008, full text of the lecture published in July 2008 in the (2007) 329 *Recueil des cours* 217).
- Swan, Judith. *Regional Fishery Bodies and Governance: Issues, Actions and Future Directions*. FAO Fisheries Circular No. 959 (Rome: FAO, 2000).
- Tanaka, Yoshifumi. *Predictability and Flexibility in the Law of Maritime Delimitation* (Oxford; Portland, Or.: Hart, 2006).

Underdal, Arild. *The Politics of International Fisheries Management: The Case of the Northeast Atlantic* (Oslo: Universitetsforlaget, 1980).

United Nations Division of Oceans Affairs and Law of the Sea DOALOS, *The Regime for High Seas Fisheries: Status and Prospectus* (New York: United Nations, 1992).

Weil, Prosper. *The Law of Maritime Delimitation – Reflections*, trans. by Maureen MacGlashan (Cambridge: Grotius, 1989).

Willock, A. and Lack, M. *Follow the leader: Learning from experience and best practice in regional fisheries management organizations* (WWF International and TRAFFIC International, 2006), online TRAFFIC <<http://www.traffic.org/fisheries>>.

Willock, A. and Cartwright, I. *Conservation implications of allocation under the Western and Central Pacific Fisheries Commission* (WWF Australia and TRAFFIC Oceania, 2006), online TRAFFIC <<http://www.traffic.org/fisheries>>.

Secondary Material: Articles

Anderson, David H. “The Straddling Stocks Agreement of 1995: An Initial Assessment” (1996) 45 I.C.L.Q. 463.

Anderson, Emory D. “The History of Fisheries Management and Scientific Advice – the ICNAF/NAFO History from the End of World War II to the Present” (1998) 23 Journal of Northwest Atlantic Fisheries Science 75.

Aqorau, T. “Current legal developments: Western and Central Pacific Fisheries Commission” (2009) 24 Int’l. J. Mar. & Coast. L. 737.

Barnes, Richard. “Entitlement to Marine Living Resources” in Oude Elferink, Alex G., and Molenaar, Erik J. (eds.). *The International Legal Regime of Areas Beyond National Jurisdiction: Current and Future Developments* (Leiden: Martinus Nijhoff Publishers, 2010) 83.

Bjørndal, T., Kaitala, V., Lindroos, M., and Munro, G. “The management of high seas fisheries” (2000) 94 Annals of Operations Research 183.

Bjørndal, Trond. “Overview, roles, and performance of the North East Atlantic fisheries commission (NEAFC)” (2009) 33 Marine Policy 685.

Boyle, A. E. Book Review, In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity by Edith Brown Weiss (1991) 40 I.C.L.Q. 230.

Brown Weiss, Edith. “Our Rights and Obligations to Future Generations for the Environment (1990) 84 Am. J. Int’l L. 198.

- _____. "Environmental Equity: The Imperatives for the Twenty-First Century" in Winfried Lang, ed. *Sustainable Development and International Law* (London; Boston: Graham & Trotman/Martinus Nijhoff, 1995) 17.
- _____. "Environmental equity and international law," in Lin, S. and Kurukulasuriya, L. (eds.) *UNEP's New Way Forward: Environmental Law and Sustainable Development*, (Nairobi: UNEP, 1995) 7.
- _____. "Opening the Door to the Environment and to Future Generations" in Boisson de Chazournes, Laurence, and Sands, Philippe (eds.). *International Law, the International Court of Justice and Nuclear Weapons* (Cambridge, UK: Cambridge University Press, 1999) 338.
- _____. "Common but Differentiated Responsibilities in Perspective" (2002) 96 American Society of International Law Proceedings 366.
- Brunnée, Jutta. "Climate change, global environmental justice and international environmental law" in Ebbesson, Jonas, and Okowa, Phoebe (eds.). *Environmental Law and Justice in Context* (Cambridge, UK; New York: Cambridge University Press 2009) 316.
- Butterworth, Douglas S., and Penney, Andrew J. "Allocation in high seas fisheries: avoiding meltdowns" in Payne, A.I.L., O'Brien, C.M., and Rogers, S.I. (eds.). *Management of Shared Fish Stocks* (Malden, MA: Blackwell Pub., 2004) 165.
- Cochrane, Kevin L. "Reconciling sustainability, economic efficiency and equity in fisheries: the one that got away?" (2000) 1 Fish and Fisheries 3.
- Collins, Lynda M. "Revisiting the Doctrine of Intergenerational Equity in Global Environmental Governance" (2007) 30 Dal. L. J. 79.
- Crutchfield, James A. "Common Property Resources and Factor Allocation" (1956) 22 The Canadian Journal of Economics and Political Science 292.
- Cullet, Philippe. "Differential Treatment in International Environmental Law: Towards a New Paradigm of Inter-State Relations" (1999) 10 E.J.I.L. 549.
- Cullis-Suzuki, Sarika, and Pauly, Daniel. "Failing the High Seas: A Global Evaluation of Regional Fisheries Management organizations" Marine Policy [forthcoming in 2010].
- D'Amato, Anthony. "Do We Owe a Duty to Future Generations to Preserve the Global Environment?" (1990) 84 Am. J. Int'l L. 190.
- Dellapenna, Joseph. "The Berlin Rules on Water Resources: The New Paradigm for International Water Law" (Paper presented to the 2006 Proceedings of the World Environmental and Water Resources Congress, May 21-25, 2006)[unpublished].

- Driscoll, D.J., and McKellar, N. "The Changing Regime of North Sea Fisheries" in Mason, C.M. (ed.). *The Effective Management of Resources: the International Politics of the North Sea* (London: Nichols Publishing Co., 1979) 125.
- Ekeland, Ivar, Pareja, Claudio, Sumaila, U. Rashid. "Fisheries management and intergenerational equity" (2009) 17 *Les Cahiers de la Chaire, Institute Finance Dauphine Université Paris*, online: Institute Finance Dauphine <<http://www.ifd.dauphine.fr>>.
- Esty, Daniel. "Good Governance at the Supranational Scale: Globalizing Administrative Law" (2005-2006) 115 *Yale L.J.* 1490.
- Finley, Carmel. "The Social Construction of Fishing, 1949" (2009) 14 *Ecology and Society* 6, [online] URL: <<http://www.ecologyandsociety.org/vol14/iss1/art6>>.
- Freestone, David. "Editorial: Principles Applicable to Modern Oceans Governance" (2008) 23 *Int'l J. Mar. & Coast. L.* 385.
- French, Duncan. "Developing States and International Environmental law: The Importance of Differentiated Responsibilities" (2000) 49 *I.C.L.Q.* 35.
- _____. "International Environmental Law and the Achievements of Intragenerational Equity" (2001) 31 *Environmental Law Reporter* 10469.
- Fuentes, Ximena. "The criteria for the equitable utilization of international rivers" (1997) 67 *Brit. Y.B. Int'l L.* 337.
- _____. "International Law-making in the Field of Sustainable Development: The Unequal Competition between Development and the Environment" in Schrijver, Nico, and Weiss, Friedl. *International Law and Sustainable Development: Principles and Practices* (Leiden; Boston: Martinus Nijhoff Publishers, c2004) 7.
- Garcia, S.M. "Ocean Fisheries Management: The FAO Programme" in Fabbri, Paolo (ed.). *Ocean Management in Global Change* (London and New York: Elsevier Applied Science, 1992) 381.
- Gezelius, Stig S. "The Arrival of Modern Fisheries Management in the North Atlantic: A Historical Overview" in Gezelius, Stig S., and Raakjær, Jesper. *Making Fisheries Management Work: Implementation of Policies for Sustainable Fishing* (Dordrecht: Springer, c. 2008) 27.
- Gordon, H. Scott. "The Economic Theory of a Common-Property Resource: The Fishery" (1954) *The Journal of Political Economy* 88.
- Gray, Kevin. "Property in Thin Air" (1991) 50 *Cambridge Law Journal* 252.

- Handl, Gunther. "The Principle of 'Equitable Use' as applied to internationally shared natural resources: its role in resolving potential international disputes over transfrontier pollution" (1978-79) 14 Rev. B.D.I. 40.
- Hardin, Garret. "The Tragedy of the Commons" (1968) 162 Science 1243.
- Hepburn, J., with Khalfan, A. "The Principle of Equity and the Eradication of Poverty" CISDL Legal Working Paper in "Recent Developments in International law Related to Sustainable Development" Series, online: CISDL <<http://www.cisdl.org>>.
- Hey, Ellen. "The Watercourses Convention: To What Extent Does it Provide a Basis for Regulating Uses of International Watercourses?" (1998) 7 RECIEL 291.
- Hoel, Alf Håkon, and Kvalvik, Ingrid. "The allocation of scarce natural resources: The case of fisheries" (2006) 30 Marine Policy 347.
- Ingram, Helen, Whiteley, John M. and Perry, Richard. "The Importance of Equity and the Limits of Efficiency in Water Resources" in Whiteley, John M., Ingram, Helen and Perry, Richard. *Water, Place and Equity* (Cambridge, Mass.: MIT Press, 2008) 1.
- Janis, Mark. "The Ambiguity of Equity in International Law" (1983) 9 Brook. J. Int'l L. 7.
- Jennings, Robert Y. "Equity and Equitable Principles" (1986) 42 Ann. Suisse dr. int. 27.
- Juda, Lawrence. "The 1995 United Nations Agreement on Straddling Stocks and Highly Migratory Stocks: A Critique" (1997) 28 Ocean Devel. & Int'l L. 147.
- Karagiannakos, A. "Total Allowable Catch (TAC) and quota management system in the European Union" (1996) 20 Marine Policy 235.
- Kiss, Alexandre. "The Rights and Interests of Future Generations and the Precautionary Principle" in Freestone, David, and Hey, Ellen, (ed.). *The Precautionary Principle and International Law: The Challenge of Implementation* (The Hague; London; Boston: Kluwer Law International, 1996) 19.
- Kwiatkowska, Barbara. "Equitable Maritime Boundary Delimitation: A Legal Perspective" (1988) Int'l J. Estuarine & Coastal L. 287.
- Lipper, Jerome. "Equitable Utilization", in Garretson, A.H., Hayton, R.D., and Olmstead, C.J. (eds.). *The Law of International Drainage Basins* (New York: New York University School of Law, 1967) 15.
- Lodge, Michael W., and Nandan, Satya N. "Some Suggestions Towards Better Implementation of the United Nations Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks of 1995" (2005) 20 Int'l J. Mar. & Coast. L. 345.

- Lowe, Vaughn. "Sustainable Development and Unsustainable Arguments" in Boyle, Alan E., and Freestone, David (eds.). *International Law and Sustainable Development: Past Achievements and Future Challenges* (New York: Oxford University Press, 1999) 19.
- Mayeda, Graham. "Where should Johannesburg take us? Ethical and Legal Approaches to Sustainable Development in the Context of International Environmental Law" (2004) 15 Colorado University Journal of Environmental Law and Policy Colo. J. Int'l Env'tl. L. & Pol'y 29.
- McDorman, Ted L. "Implementing existing tools: Turning words into actions – decision-making processes of regional fisheries management organizations (RFMOs)" (2005) 20 Int'l J. Mar. & Coast. L. 423.
- Molenaar, Erik Jaap. "Participation, Allocation and Unregulated Fishing: The Practice of Regional Fisheries Management Organizations" (2003) 18 Int'l J. Mar. & Coast. L. 457.
- _____. "The Concept of 'Real Interest' and Other Aspects of Co-operation through Regional Fisheries Management Mechanisms" (2000) 15 Int'l J. Mar. & Coast. L. 475.
- _____. "The South Tasman Rise Arrangement of 2000 and other Initiatives on Management and Conservation of Orange Roughy" (2001) 16 Int'l J. Mar. & Coast. L. 77.
- Munro, Gordon. "Game theory and the development of resource management policy: the case of international fisheries" (2008) 14 Environment and Development Economics 7.
- Nelson, L.D.M. "The Roles of Equity in the Delimitation of Maritime Boundaries" (1990) 84 Am. J. Int'l L. 837.
- Oda, Shigeru. "Some reflections on recent developments in the law of the sea", (2002) 27 Yale J. Int'l L. 217, in Oda, Shigeru. *Fifty Years of the Law of the Sea* (The Hague: Kluwer Law International, 2003) 685.
- Örebech, Peter, Sigurjonsson, Ketill, and McDorman, Ted L. "The 1995 United Nations Straddling and Highly Migratory Fish Stocks Agreement: Management, Enforcement and Dispute Settlement", (1998) 13 Int'l J. Mar. & Coast. L. 119.
- Oude Elferink, Alex G. "The Determination of Compatible Conservation and Management Measures for Straddling and Highly Migratory Fish Stocks" (2001) 5 Max Planck Yearbook of United Nations Law 551.
- Pintassilgo, P. "A coalition approach to the management of high seas fisheries in the presence of externalities" (2003) 16 Natural Resource Modeling 175.

- Rainne, Juha. "The Work of the International Law Commission on Shared Natural Resources: The Pursuit of Competence and Relevance" (2006) 75 *Nordic J. Int'l L.* 321.
- Rajamani, Lavanja. "The Principle of Common but Differentiated Responsibility and the Balance of Commitments under the Climate Regime" (2000) 9 *RECIEL* 120.
- Rayfuse, Rosemary. "Regional allocation issues or Zen and the art of pie cutting" University of New South Wales Law Research Paper Nr. 2007-10 (Paper presented to the Sharing the Fish Conference 06: Allocation Issues in Fisheries Management, Perth, 26 February – 2 March 2006) [unpublished].
- _____. "The Anthropocene, Autopoiesis and the Disingenuousness of the Genuine Link: Addressing Enforcement Gaps in the Legal Regime for Areas Beyond National Jurisdiction" in Oude Elferink, Alex G., and Molenaar, Erik J., (eds.). *The International Legal Regime of Areas Beyond National Jurisdiction: Current and Future Developments* (Boston: Martinus Nijhoff Publishers, 2010) 165.
- Rayfuse, Rosemary, and Warner, Robin. "Securing a Sustainable Future for the Oceans Beyond National Jurisdiction: The Legal Basis for an Integrated Cross-Sectoral Regime for High Seas Governance for the 21st Century" (2008) 23 *Int'l J. Mar. & Coast. L.* 399.
- Røttingen, Ingolf. "Management of pelagic fisheries in the Norwegian Sea", in Skjoldal, Hein Rune (ed.). *The Norwegian Sea Ecosystem* (Trondheim: Tapir Academic Press, 2004) 535.
- Sands, Philippe. "International Law in the Field of Sustainable Development" (1994) 65 *Brit. Y.B. Int'l L.* 303.
- Scott, A. "Introducing Property in Fishery Management" in Shotton, Ross (ed.). *Use of Property Rights in Fisheries Management*, FAO Fisheries Technical Paper No. 404/1 (Rome: FAO, 2000) 1.
- Sen, Sevaly. "The evolution of high-seas fisheries management in the north-east Atlantic" (1997) 35 *Ocean & Coastal Management* 85.
- Serdy, Andrew. "Trading of Fishery Commission Quota under International Law" (2007) 21 *Ocean Yearbook* 265.
- _____. "International Fisheries Law and the Transferability of Quota: Principles and Precedents" (Paper presented to the Inter-American Tropical Tuna Commission (IATTC) Workshop on Rights-Based Management and Buybacks in International Tuna Fisheries, La Jolla, 5 – 9 May 2008, online: IATTC <<http://www.iattc.org>>).
- Shelton, Dinah. "International Cooperation on Shared Natural Resources" in Hart, Sharelle (ed.). *Shared Resources: Issues of Governance* (Gland: IUCN, 2004) 1.

- _____. “Describing the elephant: international justice and environmental law” in Ebbesson, Jonas, and Okowa, Phoebe (eds.). *Environmental Law and Justice in Context* (Cambridge, UK; New York: Cambridge University Press 2009) 55.
- _____. “Equity”, in Bodansky, Daniel, Brunée, Jutta, and Hey, Ellen (eds.). *The Oxford Handbook of International Environmental Law* (Oxford : Oxford University Press, 2007) 639.
- Solum, Lawrence B. “To Our Children’s Children’s Children: The Problems of Intergenerational Ethics” (2001-2002) 35 Loy. L.A. L. Rev. 163.
- _____. “Procedural Justice” (2004-2005) 78 S. Cal. L. Rev. 181.
- Standal, Dag. “The rise and decline of blue whiting fisheries – capacity expansion and future regulations” (2006) 30 Marine Policy 315.
- Sumaila, Ussif R. “Intergenerational cost–benefit analysis and marine ecosystem Restoration” (2004) 5 Fish and Fisheries 329.
- Sumaila, Ussif R. and Walters, Carl. “Intergenerational discounting: a new intuitive approach” (2005) 52 Ecological Economics 135.
- Tsamenyi, M. and McIlgorm, A. “Enhancing Fisheries Rights through Legislation – Australia’s Experience”, in Shotton, Ross (ed.). *Use of Property Rights in Fisheries Management*, FAO Fisheries Technical Paper No. 404/2 (Rome: FAO, 2000) 88.
- van Dijk, P. “Nature and Function of Equity in International Economic Law” (1986) 7 Grotiana 3.
- van Dyke, J.M. “Plenary lecture”: The evolution of the Law of the Sea and the challenges of allocating the living resources of the high seas”, online: International Ocean Institute <<http://www.ioinst.org/templates/ioinst/Docs/PIM31/TOP1/vandyke.pdf>>.
- Weil, Proper. “Geographic Considerations in Maritime Delimitation” in Charney, Jonathan I., and Alexander, Lewis M. *International Maritime Boundaries*, vol.1 (Dordrecht; Boston: Martinus Nijhoff Publishers, 1993)115.
- Wolf, Aaron T. “Criteria for equitable allocations: the heart of international water conflict” (1999) 23 Natural Resources Forum 3.
- Panel ”Is there a Role for Equity in International Law?” 1987 (81) American Society of International Law Proceedings 126.
- “Common but Differentiated Responsibility”, (2002) 96 American Society of International Law Proc. 358.

Other Materials

Agnew, D. J., Aldous, D., Lodge, M., Miyake, P., and Parkes, G., “Discussion Paper: Allocation Issues for WCFPC Tuna Resources,” prepared for the WCFPC Secretariat by MRAG Ltd., October 2006, WCPFC3-2006/15, Attachment B, presented at the Third Regular Session of the WCPFC in Apia, Samoa, 11-15 December 2006, at 19, online: WCPFC <<http://www.wcpfc.int>>.

CCAMLR. Report of the Eleventh Meeting of the Commission for the Conservation of Antarctic Marine Living Resources, Hobart, Australia, 26 October - 6 November, 1992, online: <<http://www.ccamlr.org>>.

_____. Performance Review Panel Report, 1 September 2008, online: CCAMLR <<http://www.ccamlr.org>>.

CCSBT. Report of the Performance Review Working Group, Canberra, Australia, 3–4 July 2008, and Report of the Independent Expert, September 2008, online: CCSBT <<http://www.ccsbt.org>>.

_____. Report of the Fifth Annual Meeting of the Commission, Second Part, 10 - 13 May 1999, Tokyo, Japan, online: CCSBT <<http://www.ccsbt.org>>.

_____. Report of the Special Meeting of the Commission, 16-18 November 2000, Canberra, online: CCSBT <<http://www.ccsbt.org>>.

_____. Report of the Eleventh Annual Meeting of the Commission, 19-22 October 2004, Busan, Republic of Korea, online: CCSBT <<http://www.ccsbt.org>>.

_____. Report of the Sixteenth Annual Meeting of the Commission, 20-23 October 2009, Jeju Island, Republic of Korea, online: CCSBT <<http://www.ccsbt.org>>.

Gulf of Maine Transboundary Management Guidance Committee. “Development of a Sharing Allocation Proposal for Transboundary Resources of Cod, Haddock and Yellowtail Flounder on Georges Bank”, Fisheries Management Regional Report 2002/01, January 2002, online: Maritimes Region of the Department of Fisheries & Oceans Canada, <<http://www.mar.dfo-mpo.gc.ca>>.

Gulland, John. “Some general considerations of methods of controlling the amount of fishing” SCRS/1973/062 and COM/1973/023, available Col.Vol.Sci.Pap. ICCAT, 2: 116-125 (1974), online: ICCAT <<http://www.iccat.int>>.

Hurry, G.D., Hayashi, M., and Maguire, J. J., *Report of the Independent Review, International Commission for the Conservation of Atlantic Tunas* (ICCAT), PLE-106/2008, Part I.

IATTC. Resolution C-09-01 on a multiannual program for the conservation of tuna in the Eastern Pacific Ocean in 2009-2001, adopted at the IATTC 80th meeting held in La Jolla, California (USA), 8-12 June 2009, online: IATTC <<http://www.iaatc.org>>.

- ICCAT. *Basic Texts*, 5th revision (Madrid: ICCAT, 2007), online: ICCAT <<http://www.iccat.int>>
- _____. *Report for biennial period, 1972-73, Part I (1972)* (Madrid, Spain, 1973) English version, online: ICCAT <<http://www.iccat.int>>.
- _____. *Report for biennial period, 1972-73, Part II (1973)* (Madrid, Spain, 1974) English version, online: ICCAT <<http://www.iccat.int>>.
- _____. *Report for biennial period, 1974-75, Part I (1974), English version*, online: ICCAT <<http://www.iccat.int>>.
- _____. *Report for biennial period, 1982-83, Part I (1982)* (Madrid, Spain: ICCAT, 1983) English version, online: ICCAT < <http://www.iccat.int>>.
- _____. *Record of the Meeting on the Western Atlantic Bluefin Management Measures*, 8–12 February 1982, Miami, Florida, online: ICCAT <<http://www.iccat.int>>.
- _____. *Report for biennial period, 1996-97, Part II (1997)* (Madrid, Spain: ICCAT 1998), online: ICCAT < <http://www.iccat.int>>.
- _____. *Report for biennial period, 1998-99, Part II (1999)* (Madrid, Spain: ICCAT 2000), online: ICCAT < <http://www.iccat.int>>.
- _____. *Report for biennial period, 2000-01, Part II (2001) - Vol. I* (Madrid, Spain: ICCAT, 2002), online: ICCAT < <http://www.iccat.int>>.
- _____. *Report for biennial period, 2002-03, Part I (2002) - Vol. I* (Madrid, Spain: ICCAT, 2003), online: ICCAT <<http://www.iccat.int>>.
- _____. *Recommendation 1972-01 by ICCAT on a Yellowfin size limit*, online: ICCAT <<http://www.iccat.int>>.
- _____. *Recommendation 1974-01 concerning a limit on bluefin tuna size and fishing mortality*, online: ICCAT <<http://www.iccat.int>>.
- _____. *Recommendation 1981-01 on bluefin tuna management measures*, online: ICCAT <<http://www.iccat.int>>.
- _____. *Recommendation 1982-01 on new regulations for the Atlantic bluefin tuna catch (1983)*, online: ICCAT <<http://www.iccat.int>>.
- _____. *Recommendation 1990-02 for the conservation of Atlantic swordfish stocks*, online: ICCAT < <http://www.iccat.int>>.
- _____. *Recommendation 1993-04 on supplemental regulatory measure for the management of Atlantic yellowfin tuna*, online: ICCAT < <http://www.iccat.int>>.

- _____. Recommendation 1998-08 concerning the limitation of fishing capacity on Northern albacore, online: ICCAT <<http://www.iccat.int>>.
 - _____. Recommendation 1999-05 concerning possible management measures for Northern albacore, online: ICCAT <<http://www.iccat.int>>.
 - _____. Recommendation 2001-12 on temporary adjustment of quotas, online: ICCAT <<http://www.iccat.int>>.
 - _____. Recommendation 2005-12 on guidelines and criteria for granting observer status at ICCAT meetings, online: ICCAT <<http://www.iccat.int>>.
 - _____. Recommendation 2006-05 to establish a multi-annual recovery plan for bluefin tuna in the Eastern Atlantic and Mediterranean, online: ICCAT <<http://www.iccat.int>>.
 - _____. Recommendation 2006-06 on supplemental recommendation by ICCAT concerning the Western Atlantic bluefin tuna rebuilding program, online: ICATT <<http://www.icatt.int>>.
 - _____. Recommendation 07-03 on the Southern albacore catch limits for 2008, 2009, 2010 and 2011, online: ICCAT <<http://www.iccat.int>>.
 - _____. Recommendation 2008-04 on supplemental recommendation by ICCAT concerning the Western Atlantic bluefin tuna rebuilding program, online: ICATT <<http://www.icatt.int>>.
 - _____. Recommendation 2008-05 amending the Recommendation by ICCAT to establish a Multiannual Recovery Plan for Bluefin tuna in the Eastern Atlantic and Mediterranean, online: ICCAT <<http://www.iccat.int>>.
 - _____. Resolution 2001-25 on criteria for the allocation of fishing possibilities, online: ICCAT <<http://www.iccat.int>>.
- ICNAF. Report of the Working Group on Joint Biological and Economical Assessment of Conservation Actions, presented at the 17th Annual Meeting of ICNAF on June 1967, Commissioners Document Nr. 67/19, and included as Part 4 of the *ICNAF Annual Proceedings*, Vol. 17, for the year 1966-1967 (Dartmouth, Canada: 1968) 48.
- _____. Report of the 17th Annual Meeting, Boston, USA, 5-9 June 1967, in *ICNAF Annual Proceedings*, Vol. 17 (1966-1967) (Dartmouth, NS: ICNAF, 1968).
 - _____. Report of the 19th Annual Meeting, Warsaw, Poland, 2-7 June 1969, in *ICNAF Annual Proceedings* Vol. 19 (1968-1969) (Dartmouth, NS: ICNAF, 1969).
 - _____. Report of the First Special Meeting of ICNAF, Rome, January 31-February 7, 1972 (Dartmouth, NS: ICNAF, 1973).

IISD. Earth Negotiations Bulletin, vol. 7, UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, Issue 10, 22 July 1993, online: IISD <<http://www.iisd.ca>>.

_____. Earth Negotiations Bulletin, vol. 7, UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, Issue 13, 27 July 1993, online: IISD <<http://www.iisd.ca>>.

_____. Earth Negotiations Bulletin, vol. 7, UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, Issue 15, 29 July 1993, online: IISD <<http://www.iisd.ca>>.

_____. Earth Negotiations Bulletin, vol. 7, UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, summary issue 16, 12-30 July 1993, online: IISD <<http://www.iisd.ca>>.

_____. Earth Negotiations Bulletin, vol. 7, UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, summary issue 30, 14-31 March 1994, IISD <<http://www.iisd.ca>>.

_____. Earth Negotiations Bulletin, volume 7, UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, Nr. 58, Wednesday 24 May 2006, online: IISD <<http://www.iisd.ca>>.

_____. Earth Negotiation Bulletin, Summary of the UN Fish Stocks Agreement Review Conference, 22-26 May 2006, Vol. 7 No. 61, Monday, 29 May 2006, online: IISD <<http://www.iisd.ca>>.

_____. Earth Negotiation Bulletin, Summary of the Fourth Session of the Preparatory Committee for the World Summit on Sustainable Development, 27 May – 7 June 2002, Volume 22 No. 41, Monday, 10 June 2002, online: ISSD <<http://www.iisd.ca>>.

_____. Earth Negotiation Bulletin, WSSD Highlights, Tuesday 27 August 2002, Vol. 22 No. 44 (Wednesday, 28 August 2002) online: ISSD <<http://www.iisd.ca>>.

IOTC. Resolution 07/05 on limitation of fishing capacity of IOTC Contracting Parties and Cooperating Non-Contracting Parties in terms of number of longline vessels targeting swordfish and albacore, superseded by IOTC Resolution 09/02 on the implementation of a limitation of fishing capacity of Contracting Parties and Cooperating Non-Contracting Parties, both available online: IOTC <<http://www.iotc.org>>.

_____. Resolution 10/01 for the conservation and management of tropical tuna stocks in the IOTC area of competence, included in Annex VIII of the Report of the 14th Session of the Indian Ocean Tuna Commission held in Busan, Korea, 1-5 March, IOTC-2010-S14-R[E], online: IOTC <<http://www.iotc.org>>.

- _____. Report of the 14th Session of the Indian Ocean Tuna Commission, Busan, Korea, 1-5 March, IOTC-2010-S14-R[E], online: IOTC <<http://www.iotc.org>>.
- _____. Report of the Performance Review Panel, January 2009, online: IOTC <<http://www.iotc.org>>.
- NAFO. Conservation and Management Measures 2010, NAFO FC Doc. 10/1 Serial No. N5740, online: NAFO <<http://www.nafo.int>>.
- _____. Meeting Proceedings of the General Council and Fisheries Commission for 1997 (Dartmouth, NS: NAFO, 1998).
- _____. Meeting Proceedings of the General Council and Fisheries Commission for 1999 (Dartmouth, NS: NAFO, 2000).
- _____. Meeting Proceedings of the General Council and Fisheries Commission for 2000 (Dartmouth, NS: NAFO, 2001).
- _____. Report of the Fisheries Commission 26th Annual Meeting, September 13-17, 2004, Dartmouth, Nova Scotia, Canada (FC Doc. 04/17), online: NAFO <<http://www.nafo.int>>.
- _____. Report of the Fisheries Commission Intersessional Meeting, 30 April – 7 May, 2008, Montreal, Quebec, Canada (FC Doc. 08/4), online: NAFO <<http://www.nafo.int>>.
- _____. Report of the Fisheries Commission and its Subsidiary Body (STACTIC) 31st Annual Meeting, September 21-25, 2009, Bergen, Norway (FC Doc. 09/21), online: NAFO <<http://www.nafo.int>>.
- _____. Report of the General Council 27th Annual Meeting, September 19-23, 2005, Tallinn, Estonia (GC Doc. 05/4), online: NAFO <<http://www.nafo.int>>.
- _____. Report of the Intersessional Meeting of the General Council, 19-20 April 2007, Montreal, Canada (GC Doc. 07/01), online: NAFO <<http://www.nafo.int>>.
- _____. Report of the of the General Council 29th Annual Meeting, 24-28 September 2007, Lisbon, Portugal, (GC Doc. 07/5), online: NAFO <<http://www.nafo.org>>
- _____. Report of the Working Group on Allocation of Fishing Rights to the Contracting Parties of NAFO, 26-27 March 2003, Miami, Florida, USA (FC Doc. 03/2), online NAFO <<http://www.nafo.int>>.
- _____. Report of the Working Group on the Reform of NAFO (GC Doc. 06/1), online: NAFO <<http://www.nafo.int>>.

- ____. Report of the of the Working Group on the Reform of NAFO, 12-15 September 2006, Lunenburg, Nova Scotia, Canada (GC Doc. 06/3), online: NAFO <<http://www.nafo.int>>.
 - ____. Resolution 1/99 (NAFO/GC Doc. 99/8) to guide expectations of future new members with regard to fishing opportunities in the NAFO Regulatory Area, online: NAFO <<http://www.nafo.int>>.
 - ____. Scientific Council Reports 2005, Part A – Report of the Scientific Council Meeting 2-16 June 2005, online: NAFO <<http://www.nafo.int>>.
 - ____. Scientific Council Reports 2007, Part A – Report of the Scientific Council Meeting 7-21 June 2007, online: NAFO <<http://www.nafo.int>>.
 - ____. Scientific Council Reports 2009, Part A – Report of the Scientific Council Meeting 4-18 June 2009, online: NAFO <<http://www.nafo.int>>.
- NEAFC. Guidelines for the expectation of future new Contracting Parties with regard to fishing opportunities in the NEAFC Regulatory Area, agreed at the 22nd Annual Meeting of NEAFC in November 2003, online: NEAFC <<http://www.neafc.org>>
- ____. Report of the Performance Review Panel for the North East Atlantic Fisheries Commission, online: NEAFC <<http://www.neafc.int>>.
 - ____. *Report of the Proceedings of the Eight Meeting of the North-East Atlantic Fisheries Commission*, 6-11 May 1970, London (London: NEAFC, 1970).
 - ____. Report of the Twelfth Annual Meeting, June 1974 (London: NEAFC, 1975).
 - ____. Summary Report of the 19th Annual Meeting of the North East Atlantic Fisheries Commission, London, 21-24 November 2000, at 18-19, online: <<http://archive.neafc.org/reports>>.
 - ____. Summary Report of the 21st Annual Meeting of the North-East Atlantic Fisheries Commission, London, 12 - 15 November 2002, at 36, online: <<http://archive.neafc.org/reports>>.
- SPRFMO. *Interim Management Measures* adopted at the 3rd meeting of the International Consultations on the proposed South Pacific Regional Fisheries Management Organization, held in Renaca, Chile, on May 4 2007, online: SPRFMO <<http://www.southpacificrfmo.org>>.
- ____. *Revised Interim Measures for Pelagic Fishing*, adopted at the 8th meeting of the International Consultations on the Proposed South Pacific Regional Fisheries Management Organization, held in Auckland, New Zealand, on 14 November 2009, online: SPRFMO <<http://www.southpacificrfmo.org>>.

- _____. *Report of the Science Working Group*, Auckland, New Zealand, 2 – 6 November 2009, Eight International Meeting of the Consultation on the Establishment of the SPRFMO, online: SPRFMO <<http://www.southpacificrfmo.org>>.
- _____. Scientific Working Group, *Information describing Chilean jack mackerel (Trachurus murphyi) fisheries relating to the South Pacific Regional Fishery Management Organisation*, Working Draft, 30 April, 2009, SP-07-SWG-JM-02, online: SPRFMO <<http://www.southpacificrfmo.org>>.
- _____. Interim Secretariat, *Differences Between Mackerel (Trachurus species) Data Submitted to SPRFMO versus the FAO*, SP-08-SWG-INF-02, online: SPRFMO <<http://www.southpacificrfmo.org>>.
- Templeman, Wilfred, and Gulland, John. “Review of Possible conservation actions for the ICNAF Area”, in ICNAF Annual Proceedings, Vol. 15, 1964-1965 (Dartmouth, Canada: ICNAF 1965) 47.
- WCPFC. Conservation and Management Measure CMM 2005-01 for Bigeye and Yellowfin tuna in the Western and Central Pacific Ocean, online WCPFC <<http://www.wcpfc.int>>.
- _____. Conservation and Management Measure CMM 2006-03 for swordfish in the South West Pacific, online: WCPFC <<http://www.wcpfc.int>>.
- _____. Conservation and Management Measure CMM 2006-04 on striped marlin in the South West Pacific, online: WCPFC <<http://www.wcpfc.int>>.
- _____. Conservation and Management Measure CMM 2008-01 for bigeye and yellowfin tuna in the Western and Central Pacific Ocean, online WCPFC <<http://www.wcpfc.int>>.
- _____. Conservation and Management Measure 2008-05 for swordfish, online: WCPFC <<http://www.wcpfc.int>>.
- _____. Resolution 2008-01 on Aspirations of Small Island Developing States and Territories, online: WCPFC <<http://www.wcpfc.int>>.
- _____. Summary Report of the 2nd Regular Meeting of the Commission held in Pompei, Federated States of Micronesia, 12-16 December 2005, online: WCFPC <<http://www.wcpfc.int>>.
- _____. Summary Report of the 4th Regular Meeting of the Commission held in Guam, 2-7 December 2007, online: WCFPC <<http://www.wcpfc.int>>.
- _____. Summary Report of the 5th Regular Meeting of the Commission held in Busan, Korea, 8-12 December 2008, online: WCFPC <<http://www.wcpfc.int>>.